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EL 4268

GLADSTONE

ANNUAL REPPORTS AND FINAL REPORT TO LICENCE EXPIRY/SURRENDER, FOR THE PERIOD 23/6/2009 TO 22/6/2012

Submitted by
Copper Range (SA) Pty Ltd
2012

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GPO Box 1264, Adelaide, SA 5001.

Enquiries: Customer Services Branch
Minerals and Energy Resources
7th Floor
101 Grenfell Street, Adelaide 5000

Telephone: (08) 8463 3000
Facsimile: (08) 8204 1880



Government of South Australia
Department for Manufacturing,
Innovation, Trade, Resources and Energy

COPPER RANGE (SA) PTY LTD



ANNUAL TECHNICAL REPORT 23rd June 2009 to 22nd June 2010

EL 4268 – Gladstone

TITLE: ANNUAL TECHNICAL REPORT FOR
EL 4268 – Gladstone for the Period
Ending 22nd June 2010

HOLDER: COPPER RANGE (SA) Pty Ltd

OPERATOR: COPPER RANGE (SA) Pty Ltd

1:250,000 SHEET: Burra SI 54-05

1:100,000 SHEET: Pirie 6531

AUTHOR: Mark Arundell

SUBMITTED BY: Mark Arundell

DATE: 19th August 2010

KEYWORDS: Adelaide Fold Belt, gravity, iron ore,

DISTRIBUTION: 1. Copper Range (SA) Pty Ltd, Perth Office
2. Department of Primary Industries and Resources,
South Australia

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SUMMARY

EL 4268 – Gladstone lies approximately 190km to the north of Adelaide.

The area was applied for to cover historic iron occurrences and identified magnetic anomalies considered to have similar characteristics to the Hicks Quarry target on the adjacent tenement – EL 4368.

Outcrop is limited with most of the tenement being covered with Tertiary and Quaternary sediments. Basement lithologies are Neoproterozoic units of the Burra Group and are composed of sandstone, siltstone, dolomite and other sediments.

Detailed gravity surveys have been completed over the Huddleston Iron Mine and Magnetic anomaly “D”. A robust gravity anomaly was defined at the Huddleston prospect and will be drill tested in July.

Expenditure for the period totalled \$62,792.

1. INTRODUCTION

The Gladstone tenement was taken out by Copper Range (SA) Pty Ltd and covers a large strike length of units considered prospective for iron ore mineralisation within the Adelaide Fold Belt. Tenement details are summarised in Table 1.

The historic Huddleston Iron Mine was identified as an immediate target and subsequent investigation delineated a magnetic target identified by a previous explorer.

2. LOCATION AND ACCESS

The Gladstone tenement (EL 4268) is located approximately 190km north of Adelaide (Figure 1). The tenement is accessed via the Main North road which passes through Gladstone in the centre of the tenement. Numerous formed roads traverse the tenement.

The Gladstone EL is covered by the Burra 1:250,000 sheet (SI 54-05). No National Parks or restricted areas are noted over the tenements, according to the PIRSA state GIS dataset.

The Gladstone EL is covered by the Nukunnu Native Title Claim (No. SC96/5). No other claims are known in the area at this time.

3. TENURE DETAILS

The Gladstone tenement EL 4268 was taken out by Copper Range (SA) Pty Ltd, a wholly-owned South Australian subsidiary of Copper Range Ltd that was floated on the ASX as an independent company in December 2006. Tenement details are summarised in Table 1.

Tenement number	Date granted	Expiry date	Renewal date	Project name	Licensee and operator	Locality	Area km ²
EL 4268	02/01/09	22/06/10*	22/05/10	Gladstone	Copper Range (SA) Pty Ltd	190km N of Adelaide	316

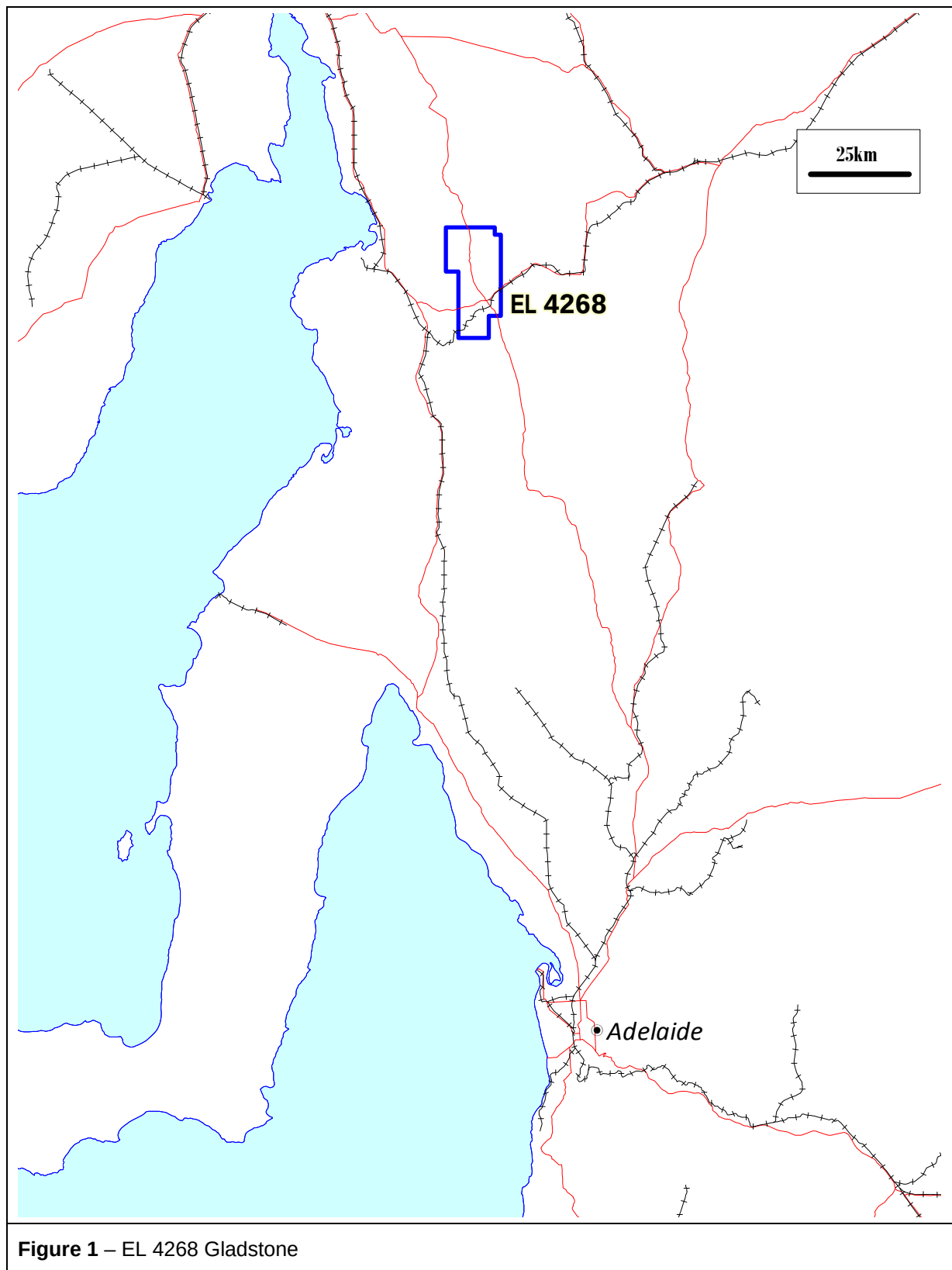
Table 1. Summary of tenement details

* Renewal application lodged

4. GEOLOGY

4.1 Regional geological setting

Regionally, the area lies within the Adelaide Fold and Thrust Belt, which contains Proterozoic to late Cambrian sedimentary sequences. Rock types recognised within this Precambrian, fault-bounded intracratonic trough are Neoproterozoic in age (1400 to 570 Ma) with terrestrial and marine clastic, chemical and glaciogenic sediments (Preiss 1987). These formations have been deformed and metamorphosed (generally to greenschist facies) by at least two major orogenic episodes: the Proterozoic Adelaide Fold Belt orogenic event and the later Early Palaeozoic Delamerian Orogeny (Preiss 1987). Following uplift caused by these deformations, erosion of the exposed older formations has taken place and younger Palaeozoic and Cainozoic sediments unconformably overly the Adelaidean sequences in places.



The Gladstone project area predominantly covers Adelaidean sediments of the Burra and Wilpena Groups, as well as the Yudnamutana subgroup of the Umberatana Group. These sediments generally strike northwest and have been folded into a series of tight synclines and domes. Other structural complexities are associated with areas of outcropping diapiric breccia (correlated with the Willouran Callana Group evaporitic sediments) at points of structural weakness or in anticlinal cores.

5.0 PREVIOUS EXPLORATION

CRA

After an unsuccessful search for kimberlitic material in the area, CRA undertook a geophysics and drilling program near the old Charlton Copper Mine. CRA was following up on previous aeromag, E.M. and radiometric surveys carried out by Westchester Mining Corporation. CRA ran an IP survey of 3000m on 3 different lines (50m reading spacing), which showed an anomaly they thought might be related to carbonaceous shale and sulfide in the Tapley Hill Formation. To test the anomaly, thought to be around 50m depth, CRA drilled 4 percussion holes but failed to hit the anomaly due to poor drilling conditions and hole collapse; however, trace chalcopyrite was noted in one hole (18m depth). They then completed ground magnetic surveys in the anomalous area that picked out a mag anomaly of unusual and undefined shape, which they concluded was either creek debris or a buried man-made object. They persisted in drilling the original IP anomaly with a diamond drill hole. The 150m hole intersected only stringers of pyrite and graphite with trace chalcopyrite and galena between 16 and 114 meters. CRA concluded that the stringers were the source of the IP anomaly.

Cultus Pacific

Cultus Pacific undertook preliminary reconnaissance and sampling of the CRJ area near the Charlton Mine and to the east of the Hick's Ironstone Mine. They noted several aeromagnetic anomalies from Westchester Mining's previous work; however, the relevant pages are missing from the Cultus Pacific envelope and the Westchester SML is not available for download. Cultus did little substantial work, but identified the Yanga Prospect as an area of possible interest.

Jingellic Minerals

Jingellic Minerals took up their exploration over part of what is now the Caltowie tenement in search of kimberlitic material. They undertook a fracture study and focused on areas of lineament intersection. One of these intersections (D) is on CRJ ground. 258 ground magnetic readings were taken over a 2.7km² area. Four magnetic anomalies were discovered and sampled for kimberlitic indicator minerals. No anomalous copper values were present in this area, but geochemical evidence points to a small buried mafic intrusion, possibly dolerite.

Inca Resources (JV with Craton Resources)

Inca Resources re-examined old aeromagnetic and ground magnetic data from CRA and Westchester Mining previous work. They drilled the two prominent magnetic anomalies (apparent on the regional TMI map) with an RC rig to test them. In the northern anomaly, they placed two drillholes: LRC-1 and LRC-3. LRC-1 collapsed, but from >15-37m they recorded massive to clay-banded black hematite ironstone underlain by silicified siltstone/silcrete with ochre-yellow hematite veinlets. In hole LRC-3 from 20-43m, Inca reported siltstone clay with quartzite-ironstone-dolomitic siltstone gravel. From 42-169m dolomitic siltstone interbedded with dolomitic limestone underlain by massive to bedded pale green to reddish gray siltstone with hm alteration and scattered pyrite were recorded. At the southern mag anomaly, Inca and Craton Resources drilled hole LRC-2 which passed through dolomitic siltstone interbedded with dolomitic limestone with locally abundant pyrite

in calcite veins and disseminated throughout the rock (depth of 86m). No significant base metal intersections were noted.

6. WORK COMPLETED BY COPPER RANGE (S.A) PTY LTD

The Company has prioritised the defined magnetic anomalies and the Hicks, Magnetic anomaly "A" and Huddleston targets will have detailed gravity surveys (100m x 100m) conducted over them to define the potential extent of high grade haematite mineralisation. Negotiations with landowners are currently in progress in order to complete this work as soon as possible. The Company is planning to commence an initial drilling programme to test these targets on completion of the gravity survey.

At the Huddleston prospect, a +2km long, 1.2mgal gravity target has been defined adjacent to the historic Huddleston Iron Mine. The target is thought to represent a shallowly buried massive ironstone. The Huddleston workings may represent the surficial reworking of this target. It is considered an immediate drill target.

Field inspection of the Huddleston anomaly revealed that there is no outcrop associated with the gravity anomaly. The anomaly is flanked to the west and east by scattered outcrop of ironstone – possibly iron enrichment of younger sediments. Results of rock chip samples collected at Huddleston are attached as Appendix 2.

No significant gravity anomaly was recorded from Mag "D" and thus no further work is planned for this prospect.

Results of gravity station recordings are attached as Appendix 1 and a logistics report is included as Appendix 3.

7. CONCLUSIONS AND RECOMMENDATIONS

Gravity surveying on the Gladstone tenement has defined a robust anomaly. It is planned to drill test this anomaly in July.

Further work on EL 4268 will be dependent on the results of this drilling

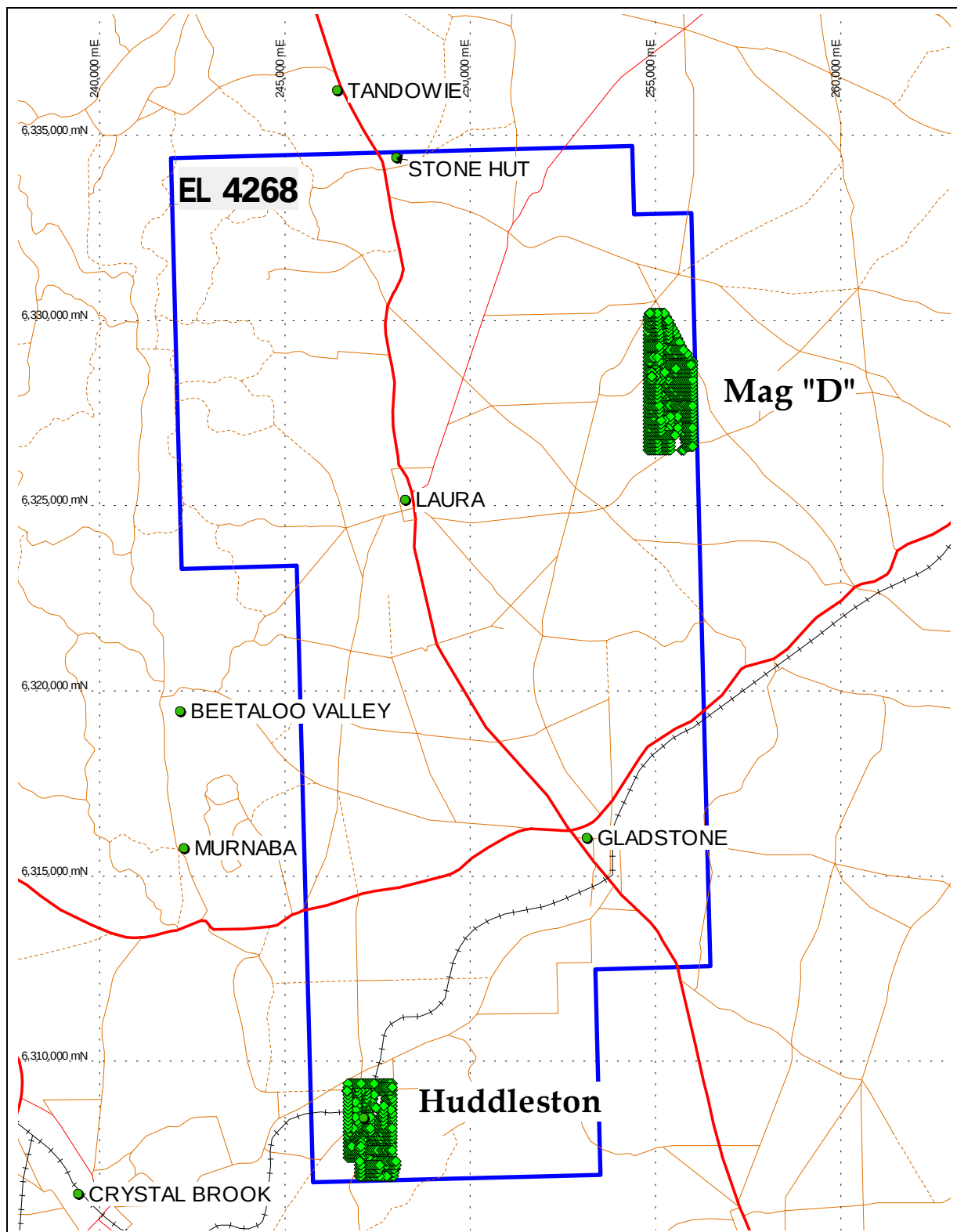


Figure 2 – EL 4268 Prospect Location Plan

8. EXPENDITURE STATEMENT

Copper Range (SA) Pty Ltd <i>Level 1, 33 Richardson Street, West Perth, WA, 6005</i> <i>EL 4268</i> Job Activity [Detail] 23/06/2009 To 22/06/2010		
Job #	Job Name	Debit
5-1013	Consultant - Geology	\$15,000.00
5-4048	Travel - Accommodation, Meals	\$1,195.22
5-4050	Travel - Airfares	\$4,240.49
5-4030	Travel - Field Taxi, bus	\$21.49
5-5080	Gravity Survey	\$36,363.64
5-5100	General exploration expense	\$262.57
	Sub Total	\$57,083.41
	Overheads @ 10%	\$5,708.34
	TOTAL	\$62,791.75

HAINES SURVEYS

GRAVITY SURVEY SPECIALISTS



Job No. 0947

GLADSTONE GRAVITY SURVEY

Copper Range Ltd.

December 2009 - January 2010

PERTH
PO BOX 120
BULL CREEK, WA 6149
PERTH, AUSTRALIA
TEL: (08) 9332 2140
FAX: (08) 9332 2690
INTER: +618 9332 2140

ADELAIDE
PO BOX 196
ALDGATE SA 5154
ADELAIDE, AUSTRALIA
TEL (08) 8370 8779
FAX (08) 8370 8758
INTER: +618 8370 8779

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Introduction

A GPS gravity survey designated as Gladstone Gravity Survey has been carried out in four separate areas near Gladstone in South Australia over 20 days from 15th December 2009 to 8th January 2010 on behalf of Copper Range Ltd.

The proposed Gladstone Gravity Survey consisted of 2575 detail gravity stations in four parts, designated as Mag A, Mag G, Huddleton and Hicks Quarry.

The proposed Mag A component consisted of 600 detail gravity stations in a regular grid comprising 24 West-East trending lines coincident with GDA94 with a line spacing of 100 metres and station intervals of 50 metres. The lines of regular length were bounded in the west by GDA94 Zone 54 261700E, in the east by 262900E, in the south by 6323700N and in the north by 6326000N. All lines were 1200 metres in length.

The completed Mag A component comprised of 535 stations in 24 lines. 65 gravity stations were omitted through the SE section of the grid due to landholders permission. There were 17 observations repeated for quality control purposes, giving a repeat percentage of 3.2%.

The proposed Mag G component consisted of 950 detail gravity stations in a regular grid comprising 38 West-East trending lines coincident with GDA94 with a line spacing of 100 metres and station intervals of 50 metres. The lines of regular length were bounded in the west by GDA94 Zone 54 254800E, in the east by 256000E, in the south by 6326500N and in the north by 6330200N. All lines were 1200 metres in length.

The completed Mag G component comprised of 801 stations in 38 lines. 149 gravity stations were omitted through the NE and central sections of the grid due to landholders permission. There were 28 observations repeated for quality control purposes, giving a repeat percentage of 3.5%.

The proposed Huddleton component consisted of 525 detail gravity stations in a regular grid comprising 21 West-East trending lines coincident with GDA94 with a line spacing of 100 metres and station intervals of 50 metres. The lines of regular length were bounded in the west by GDA94 Zone 54 246700E, in the east by 247900E, in the south by 6307400N and in the north by 6309400N. All lines were 1200 metres in length.

During the Huddleton component, an extra 105 stations in 5 lines at a 100 metre line spacing and a 50 metre station spacing were proposed in the southern section of the original proposed survey.

The completed Huddleton component comprised of 584 stations in 26 lines. 46 gravity stations were omitted through the central section of the grid due to inaccessible terrain. There were 27 observations repeated for quality control purposes, giving a repeat percentage of 4.6%.

The proposed Hicks Quarry component consisted of 500 detail gravity stations in a regular grid comprising 20 West-East trending lines coincident with GDA94 with a line spacing of 100 metres and station intervals of 50 metres. The lines of regular length were bounded in the west by GDA94 Zone 54 255800E, in the east by 257000E, in the south by 6319500N and in the north by 6321400N. All lines were 1200 metres in length.

The completed Hicks Quarry component comprised of 166 stations in 6 lines. 334 gravity stations were omitted through the northern and central sections of the grid due to landholders permission. There were 4 observations repeated for quality control purposes, giving a repeat percentage of 2.4%.

The Bouguer anomaly processing has been performed using a country rock density of 2.67 g/cc.

Figures 1 and 2 show the location of the survey area.

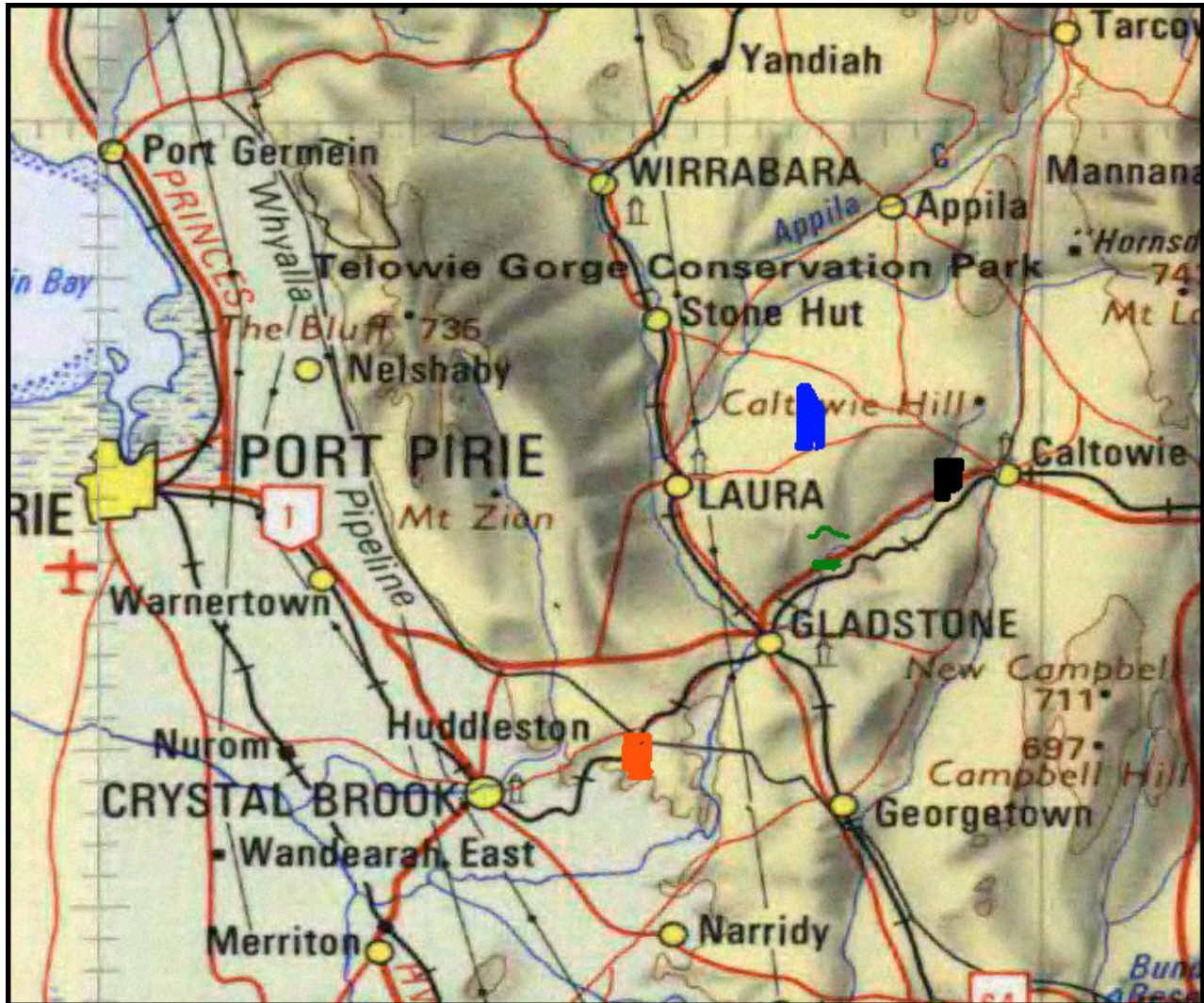


Figure 1. General Location Diagram

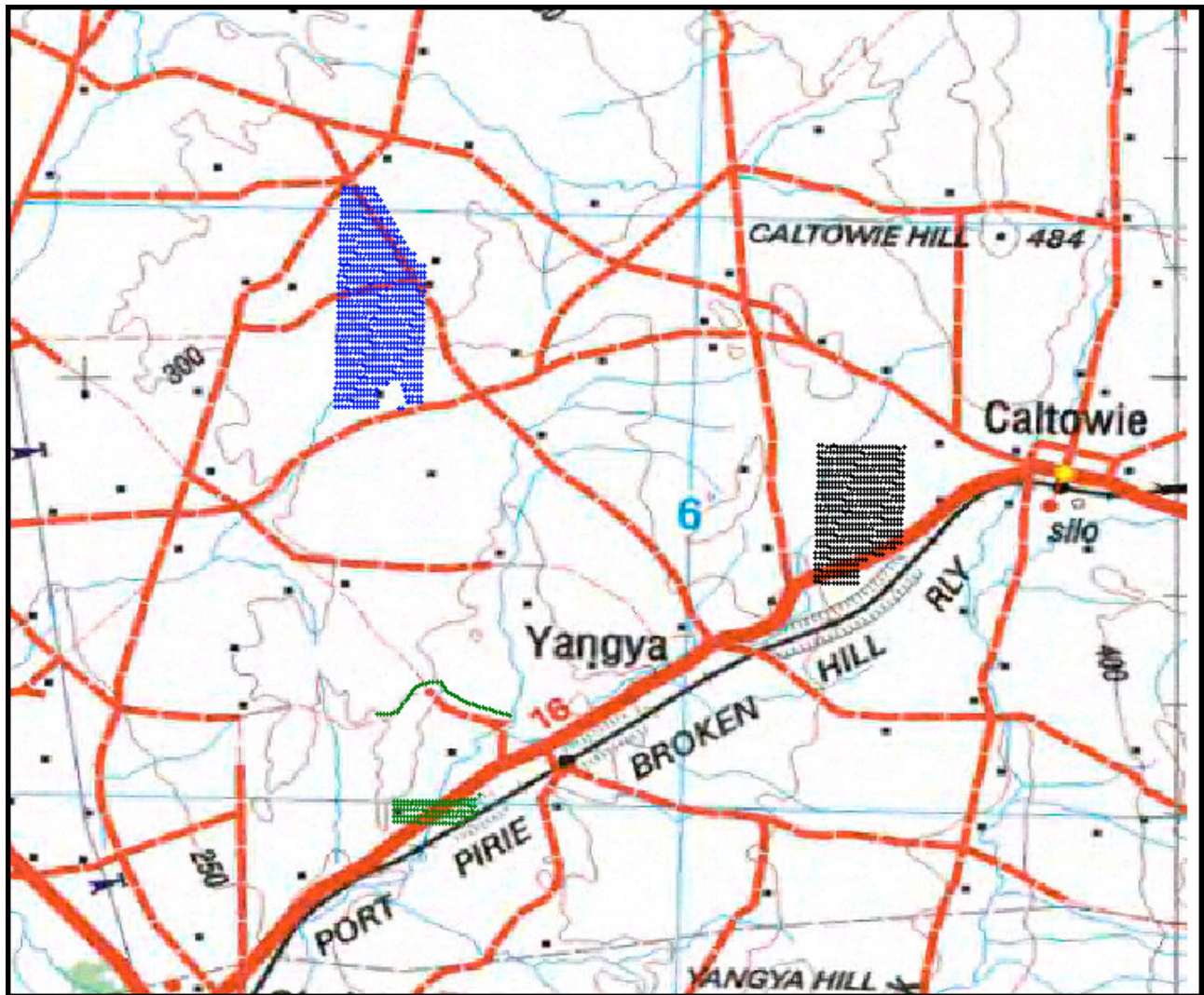


Figure 2a. Detailed Location Diagram – Mag A, Mag G and Hicks Quarry

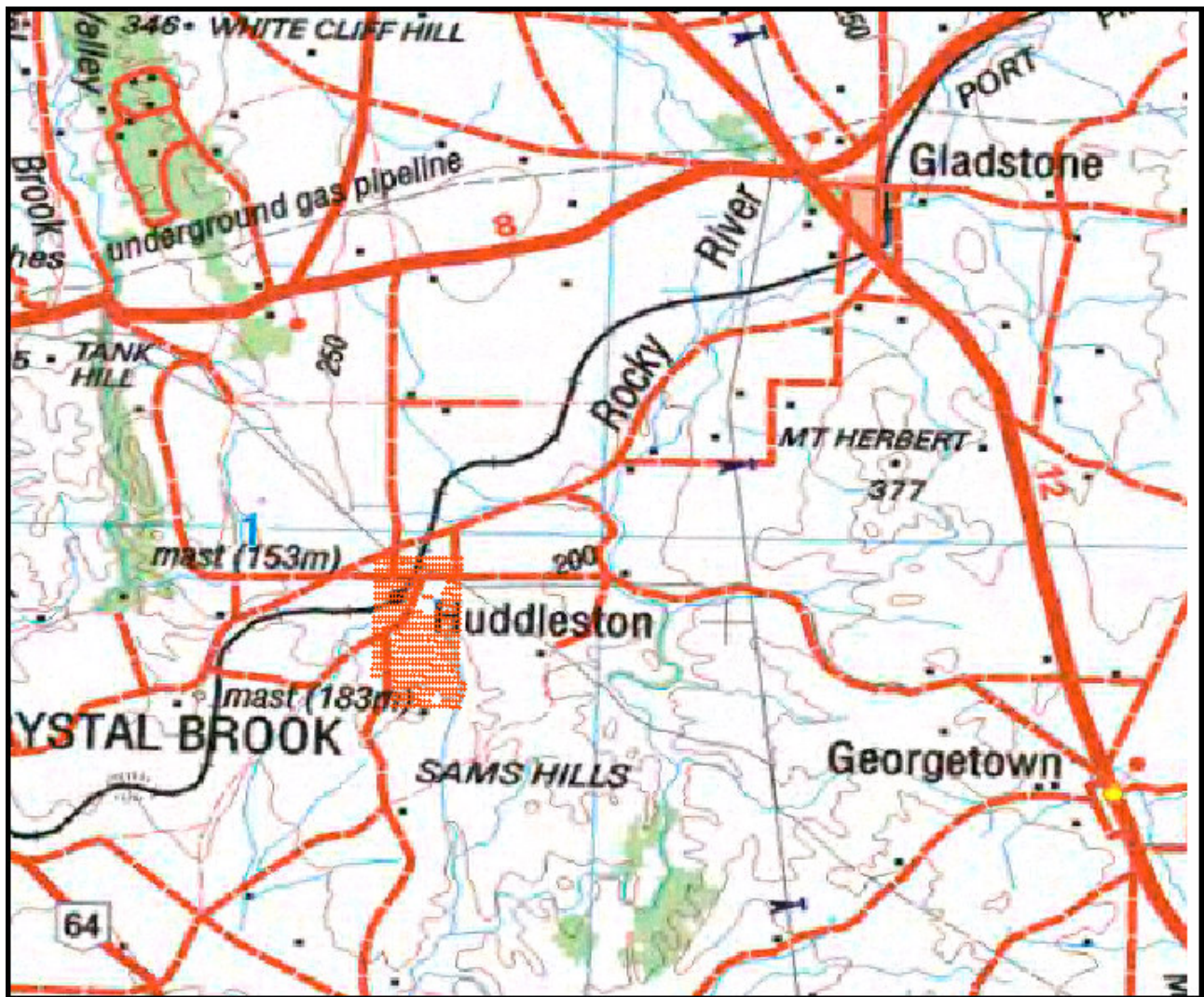


Figure 2b. Detailed Location Diagram - Huddleston

GPS Survey and Gravity Datum

Horizontal Datum: Geocentric Datum of Australia1994 (GDA94)
 Map Grid of Australia 1994 (MGA94)
 Zone 54

Vertical Datum: Australian Height Datum (AHD)

Gravity Datum: Isogal 1984 / IGSN 71

Survey and Gravity Base Stations

Five base stations were established during the Gladstone Gravity Survey. They were placed on elevated positions throughout the project to provide good UHF radio coverage for the RTK system. The bases were designated as 2009.4701 (Gladstone Control), 2009.4702 (Mag A), 2009.4703 (Mag G), 2009.4704 (Huddleton) and 2009.4705 (Hicks Quarry). The actual bases were marked with a short star picket driven flush with the natural surface. The bases were witnessed by 1m long star pickets within 0.3m of the ground marks. Single aluminum tags were attached to each witnessed post. These tags are inscribed "Haines Surveys" and "Gravity 2009.4702".

Survey Control

Horizontal and vertical control has been established using the AUSPOS online GPS processing service provided by Geoscience Australia. This method provides control within the GDA94 Datum to within +/- 5 cm. It largely replaces the need for finding local survey marks or allows accurate control to be established when local marks are not available.

A total of 89.5 hours (at 15 second intervals) of observations were logged over 11 days. The following outlines the Cartesian coordinate precision attained per day.

1 Sigma	sX(m)	sY(m)	sZ(m)	yyyy/mm/dd
4702	0.005	0.006	0.006	2009/12/15
4702	0.006	0.007	0.007	2009/12/16
4702	0.005	0.004	0.004	2009/12/17
4703	0.008	0.009	0.009	2009/12/21
4703	0.011	0.012	0.012	2009/12/22
4703	0.005	0.006	0.005	2009/12/23
4704	0.008	0.007	0.009	2010/01/2
4704	0.005	0.005	0.006	2010/01/3
4704	0.005	0.006	0.006	2010/01/4
4705	0.009	0.008	0.008	2010/01/5
4705	0.004	0.004	0.005	2010/01/6

Since GDA94 and WGS84 (Global Positioning System Datum) are virtually equivalent the GDA94 values can be directly input into the GPS processing software for all calculations.

Vertical control has been converted to an Australian Height Datum (AHD) height using the GDA94 height determined from AUSPOS and the AUSGEOID98 gravimetric geoid.

To confirm the accuracy of the AUSPOS solutions generated, post processed observations were also made between the bases using Static techniques with baselines processed to double difference fixed solutions resulting in horizontal and vertical precision of approximately 2 cm. These processed baselines showed the AUSPOS solutions to be accurate.

Gravity Control

Gravity control for base stations 2009.4702, 2009.4703, 2009.4704 and 2009.4705 was established on the Australian Fundamental Gravity Network (Isogal 1984 / IGSN 71) using daily A-B-B-A ties from Base 2009.4701 (Gladstone Control).

The value for Base 2009.4701 was established on the Australian Fundamental Gravity Network (Isogal 1984 / IGSN 71) using one way A-B ties from isogal 1960910108 (Adelaide CS1 Kensington). Two gravity meters were used for these survey ties.

This series of gravity ties ensured gravity control was established to within 0.01 milligals.

Survey and Gravity Control Values

Control information (**WGS84 heights have been derived using AusGeoid98**):

	GDA 94			MGA94 Zone 54		AHD	Isogal84	
Station	Latitude	Longitude	Height	Easting	Northing	Height	Gravity mgal	Comments
2009.4701				253270	6315948	233	979511.634	Gladstone Control
2009.4702	-33 11 08.52962	138 26 18.41053	388.132	261179.429	6325201.801	384.113	979478.557	Mag A
2009.4703	-33 09 17.09690	138 22 19.06460	346.683	254894.341	6328481.761	341.948	979480.610	Mag G
2009.4704	-33 19 35.87080	138 16 42.64870	238.325	246672.913	6309194.816	234.658	979507.675	Huddleton
2009.4705	-33 12 52.25980	138 23 09.09730	309.556	256356.564	6321885.413	304.925	979493.842	Hicks Quarry
1960910108	-34 55 18.7608	138 40 04.8864	111.620				979692.760	Adl CS1 Kensington

GPS Observations and Processing

Carrier phase GPS data has been collected using *Trimble 4000* series geodetic receivers.

Measurements to existing control have been made using Static techniques. All static baselines have been processed to double difference fixed solutions resulting in horizontal and vertical precision of approximately 2 cm.

Measurements for detail gravity observations have been made using Real Time Kinematic (RTK) techniques giving horizontal and vertical precision of at least 5 cm.

Static baseline processing has been done using Trimble GPSurvey Version 2.35 software and RTK processing using Trimble Geomatics Office Version 1.01 software.

Details of Horizontal and Vertical control are given in the sections above.

Gravity Observations

Gravity measurements have been made using *Scintrex CG5 Autograv* instruments. Instrument numbers 971190397 and 961009346 were used in this project.

Readings of 120 seconds were taken at base station. Readings of 40 seconds were taken at all other gravity survey points.

Base station readings were taken at the beginning of the day and at the end of the day's fieldwork.

All Autograv instruments apply an instrument drift correction to its final gravity reading. Any residual drifts between base station readings are corrected by the gravity post processing software. The instruments also apply Earth Tide Corrections to their final gravity reading at each station. The various instrument calibration constants are contained in the daily gravity data files.

Point Numbering and Marking

An 8 digit point number is used to identify each gravity station. The first 4 digits indicate the line number. The second 4 digits indicate the station number

For all 4 grids, the lines are West-East and the 8 digits are constructed from the planned GDA coordinates for each gravity station using

Line No = (GDA N – 6300000) / 10

Stn No = (GDA E – 200000) / 10

eg. Planned gravity station GDA coordinates

6323700.000N

261700.000E

Line No = 2370

Station No = 6170

ie, Pt No = 2370.6170

The gravity stations have not been marked in the field.

Gravity Processing

The gravity values for this survey are related to the *Australian Gravity Base Station Network* using the *Isogal84 (IGSN 71)* values at known Gravity Stations as provided by *DMR*.

Note that all gravity values shown in these surveys are expressed in units of milligals.

The field gravity observations have been processed using standard formulae and constants to produce a Bouguer Anomaly for each gravity station.

The meter reading as recorded in the raw Scintrex data file is corrected for instrument tilts, meter drift and Earth Tide. Post processing corrections are detailed below.

Drift

The residual drift between base station readings is calculated for each station reading proportionately by time. This is the drift value shown in the processing output.

$$\text{Drift} = [(t_1 - t_n) ((b_2 - b_1) / (t_2 - t_1))]$$

t_n = time of meter reading at each station

b_1 = base meter reading prior to station reading

t_1 = time of base reading b_1

b_2 = base meter reading after station reading

t_2 = time of base reading b_2

Obs mgal

This is the observed gravity value in milligals.

$$\text{Obs} = b_g + (r_n - \text{drift}) - b_1$$

b_g = base stn gravity value (Isogal84)

r_n = meter reading at each station as shown in the CG3 .dat file

drift = residual drift correction as shown above

b_1 = base meter reading prior to station reading

Anom

This is the difference between the observed gravity and the theoretical gravity value at each station. The theoretical value is calculated using the *1967 International Gravity Formula*.

$$\text{Anom} = \text{Obs} - g_{\text{th}}$$

Obs = observed gravity as explained above

$$g_{\text{th}} = 978031.8 \left(1 + 0.0053024 \sin^2 \phi - 0.0000059 \sin^2 2\phi \right)$$

ϕ = WGS84 Latitude

Freeair corrn

The freeair correction is calculated using

$$\text{Freeair corrn} = 0.3086 H$$

H = height above sea level (AHD height)

Bouguer corrn

$$\text{Bouguer corrn} = -0.04191 \rho H$$

ρ = density (2.67 g/cc used for this survey)

H = height above sea level (AHD height)

Bouguer Anom

$$\text{Bouguer Anom} = \text{Anom} + \text{Freeair corrn} + \text{Bouguer corrn}$$

Results Formats

Printed results of the gravity processing (with Bouguer corrections at density 2.67 g/cc) are included in the Appendix of this report. The results are also supplied in digital form on CD with the following files supplied.

CSV Format

This is a Comma Separated Variable format file. This format facilitates data import into spreadsheet and database software. Each record (line) contains the following data fields:

"Pt#"	Station identifiers used in data loggers, line and station numbers combined
"Line"	Station line number
"Stn"	Station number
"Date"	Date of observation
"Day"	GPS day number
"Time"	Time of observation
"GDA94_Lat"	WGS84/GDA94 Latitude used in GPS observation
"GDA94_Long"	WGS84/GDA94 Longitude used in GPS observation
"GDA94_Ht"	Height above the ellipsoid defined by the WGS84 Datum
"MGA94(ZONE54)E"	Easting value for observation on the MGA94/GDA94 Datum
"MGA94(ZONE54)N"	Northing value for observation on the MGA94/GDA94 Datum
"AHD_Ht"	Height of observation in the Australian Height Datum
"Meter_Ser_No"	Gravity meter serial number
"Meter_Rdg"	Gravity meter observation value in mGals
"Meter_Error"	Measurement of the quality of the gravity observation (a function of the SD of the observation set used and the duration of the set)
"ETC"	Earth Tide Correction applied to the gravity observation
"Drift"	The component of the meter drift between opening and closing gravity base observations applied to the observation
"Corr_Meter"	The meter observation with the drift applied
"dg"	The difference in gravity between the base and the observation
"Obs_g"	Observed gravity of the station
"Anom"	Difference between observed and theoretical gravity
"Freeair"	Free air correction (see above)
"Bouguer(2.67)"	Bouguer correction using a density of 2.67g/cc (see above)
"Bouguer_Anom"	Bouguer anomaly (see above)

Field gravity observation files with the extension .DAT and .DC are also supplied in a subdirectory named 'Raw Data'.

***.DAT**

These are the raw data files from the *Scintrex CG5* gravimeter. There is a separate file for each day's data. The files are identified by the Julian day number (001 = Jan 1st) with the prefix G. eg. G115 = day 115 (25th April).

***.DC**

These are the GPS Real Time Kinematic Data Collector files. They are ASCII format files containing the GPS vectors from the base station. The data is structured in a Trimble format (DC file Version 7).

Production Log

Date	Day#	Obs	Repeats	Crews	Comments
15/12/2009	349	135	0	1	Bases 4701 and 4702 established, commence Mag A
16/12/2009	350	100	4	1	Mag A
17/12/2009	351	50	3	1	Mag A
18/12/2009	352	128	5	1	Mag A
19/12/2009	353	0	0	1	Maintenance Day
20/12/2009	354	112	5	1	Completed Mag A
21/12/2009	355	149	0	1	Base 4703 established, commence Mag D
22/12/2009	356	150	4	1	Mag D
28/12/2009	362	124	6	1	Mag D
29/12/2009	363	91	5	1	Mag D
30/12/2009	364	138	5	1	Mag D
31/12/2009	365	84	5	1	Mag D
1/01/2010	1	69	4	1	Base 4704 established, Mag D completed
2/01/2010	2	141	0	1	Commence Huddleton grid
3/01/2010	3	153	6	1	Huddleton
4/01/2010	4	86	6	1	Base 4705 established, morning seismic activity, Huddleton
5/01/2010	5	111	7	1	Huddleton grid completed, commence Hicks Quarry grid
6/01/2010	6	119	0	1	Hicks Quarry Grid
7/01/2010	7	94	7	1	Completed Hicks Quarry grid, re-start Huddleton infill
8/01/2010	8	52	4	1	Survey completed, Huddleton infill completed
Total		2086	76		

Repeat Observation Results**MAG A GRAVITY SURVEY**

Pt #	Day	E	N	H	G	Bouguer
24206265	D349	262,647.988	6,324,200.484	366.879	979,482.450	-26.799
24206265	D350	262,647.681	6,324,200.699	366.898	979,482.461	-26.785
		+0.307	-0.215	-0.019	-0.011	-0.014
24306280	D349	262,799.608	6,324,300.981	365.034	979,483.554	-25.986
24306280	D350	262,799.278	6,324,300.619	365.061	979,483.547	-25.988
		+0.330	+0.362	-0.027	+0.007	+0.002
24406170	D349	261,698.198	6,324,400.005	357.260	979,485.623	-25.352
24406170	D350	261,698.208	6,324,399.867	357.253	979,485.650	-25.327
		-0.010	+0.138	+0.007	-0.027	-0.025
24406175	D349	261,747.490	6,324,399.346	361.885	979,484.414	-25.653
24406175	D350	261,747.450	6,324,399.453	361.860	979,484.433	-25.639
		+0.040	-0.107	+0.025	-0.019	-0.014
24506170	D350	261,698.727	6,324,498.076	356.032	979,485.652	-25.492
24506170	D352	261,698.922	6,324,498.090	356.050	979,485.670	-25.471
		-0.195	-0.014	-0.018	-0.018	-0.021
24506195	D350	261,950.587	6,324,500.052	370.256	979,481.327	-27.022
24506195	D354	261,950.422	6,324,499.783	370.317	979,481.342	-26.995
		+0.165	+0.269	-0.061	-0.015	-0.027

24606180	D350	261,798.092	6,324,599.249	361.659	979,483.681	-26.282
24606180	D351	261,797.802	6,324,599.225	361.650	979,483.704	-26.261
		+0.290	+0.024	+0.009	-0.023	-0.021
24706185	D350	261,846.733	6,324,700.481	354.426	979,484.774	-26.538
24706185	D351	261,846.842	6,324,700.442	354.456	979,484.770	-26.536
		-0.109	+0.039	-0.030	+0.004	-0.002
24806195	D350	261,947.005	6,324,798.614	354.881	979,484.988	-26.163
24806195	D351	261,947.047	6,324,798.532	354.913	979,485.018	-26.126
		-0.042	+0.082	-0.032	-0.030	-0.037
24906170	D351	261,698.834	6,324,899.507	374.639	979,481.080	-26.104
24906170	D352	261,698.593	6,324,899.421	374.617	979,481.071	-26.118
		+0.241	+0.086	+0.022	+0.009	+0.014
24906185	D351	261,847.926	6,324,899.340	363.713	979,483.302	-26.034
24906185	D354	261,847.859	6,324,899.293	363.748	979,483.294	-26.036
		+0.067	+0.047	-0.035	+0.008	+0.002
24906195	D351	261,947.612	6,324,899.731	355.603	979,485.391	-25.542
24906195	D352	261,948.057	6,324,899.911	355.568	979,485.400	-25.540
		-0.445	-0.180	+0.035	-0.009	-0.002
25006170	D351	261,698.719	6,325,000.337	376.333	979,480.859	-25.917
25006170	D352	261,698.951	6,325,000.313	376.292	979,480.872	-25.912
		-0.232	+0.024	+0.041	-0.013	-0.005
25006190	D351	261,899.627	6,324,998.944	360.760	979,484.100	-25.744
25006190	D352	261,899.592	6,324,998.909	360.760	979,484.111	-25.733
		+0.035	+0.035	+0.000	-0.011	-0.011
25206170	D352	261,697.074	6,325,199.457	369.890	979,482.439	-25.456
25206170	D354	261,697.095	6,325,199.560	369.886	979,482.443	-25.453
		-0.021	-0.103	+0.004	-0.004	-0.003
25506260	D352	262,598.932	6,325,499.171	372.445	979,481.072	-26.113
25506260	D354	262,598.683	6,325,499.184	372.407	979,481.064	-26.129
		+0.249	-0.013	+0.038	+0.008	+0.016
25606260	D352	262,598.427	6,325,599.924	372.543	979,481.354	-25.737
25606260	D354	262,598.276	6,325,599.910	372.546	979,481.377	-25.713
		+0.151	+0.014	-0.003	-0.023	-0.024

MAG G GRAVITY SURVEY

Pt #	Day	E	N	H	G	Bouguer
28405485	D355	254,852.054	6,328,400.784	344.100	979,480.005	-30.449
28405485	D356	254,852.030	6,328,400.647	344.090	979,480.013	-30.443
		+0.024	+0.137	+0.010	-0.008	-0.006
28405490	D355	254,901.203	6,328,399.296	344.601	979,479.708	-30.650
28405490	D356	254,901.551	6,328,399.345	344.589	979,479.729	-30.631
		-0.348	-0.049	+0.012	-0.021	-0.019
28405495	D355	254,951.294	6,328,401.268	344.450	979,479.679	-30.708
28405495	D356	254,951.681	6,328,401.358	344.471	979,479.696	-30.687
		-0.387	-0.090	-0.021	-0.017	-0.021

28505500	D355	255,000.031	6,328,499.190	341.352	979,480.952	-29.972
28505500	D356	255,000.105	6,328,499.006	341.331	979,480.933	-29.995
		-0.074	+0.184	+0.021	+0.019	+0.023
28605525	D355	255,251.751	6,328,594.315	335.012	979,481.537	-30.568
28605525	D362	255,251.773	6,328,594.313	334.983	979,481.540	-30.571
		-0.022	+0.002	+0.029	-0.003	+0.003
28705555	D355	255,550.343	6,328,701.035	327.125	979,484.630	-28.952
28705555	D362	255,550.272	6,328,700.823	327.118	979,484.637	-28.947
		+0.071	+0.212	+0.007	-0.007	-0.005
28805590	D355	255,899.641	6,328,801.522	328.335	979,485.136	-28.140
28805590	D362	255,899.510	6,328,801.614	328.363	979,485.163	-28.107
		+0.131	-0.092	-0.028	-0.027	-0.033
28805595	D355	255,948.190	6,328,801.322	328.850	979,485.138	-28.038
28805595	D362	255,948.460	6,328,801.276	328.859	979,485.164	-28.010
		-0.270	+0.046	-0.009	-0.026	-0.028
28905485	D355	254,847.775	6,328,891.039	334.728	979,481.870	-30.062
28905485	D362	254,847.477	6,328,891.004	334.728	979,481.863	-30.069
		+0.298	+0.035	+0.000	+0.007	+0.007
28905595	D355	255,943.393	6,328,900.911	328.596	979,485.200	-27.951
28905595	D362	255,943.227	6,328,900.759	328.525	979,485.194	-27.971
		+0.166	+0.152	+0.071	+0.006	+0.020
29105585	D362	255,849.932	6,329,100.351	326.817	979,485.368	-27.983
29105585	D363	255,849.847	6,329,100.402	326.787	979,485.379	-27.978
		+0.085	-0.051	+0.030	-0.011	-0.005
29505560	D362	255,601.888	6,329,500.373	320.351	979,485.845	-28.475
29505560	D363	255,601.904	6,329,500.537	320.349	979,485.862	-28.458
		-0.016	-0.164	+0.002	-0.017	-0.017
29605555	D362	255,550.159	6,329,599.517	319.607	979,485.805	-28.586
29605555	D363	255,550.590	6,329,599.449	319.633	979,485.791	-28.595
		-0.431	+0.068	-0.026	+0.014	+0.009
29705550	D362	255,501.821	6,329,701.601	319.065	979,485.800	-28.621
29705550	D363	255,501.923	6,329,701.673	319.083	979,485.814	-28.603
		-0.102	-0.072	-0.018	-0.014	-0.018
29805545	D362	255,449.940	6,329,798.910	317.930	979,485.917	-28.654
29805545	D363	255,449.814	6,329,798.783	317.926	979,485.931	-28.641
		+0.126	+0.127	+0.004	-0.014	-0.013
26505570	D363	255,699.633	6,326,501.994	329.627	979,485.176	-29.557
26505570	D364	255,699.303	6,326,502.230	329.628	979,485.216	-29.516
		+0.330	-0.236	-0.001	-0.040	-0.041
26505575	D363	255,748.333	6,326,502.284	328.433	979,485.662	-29.306
26505575	D364	255,748.124	6,326,502.044	328.536	979,485.683	-29.265
		+0.209	+0.240	-0.103	-0.021	-0.041
26605600	D363	256,001.545	6,326,598.472	328.224	979,486.532	-28.410
26605600	D 1	256,001.680	6,326,598.691	328.168	979,486.539	-28.414
		-0.135	-0.219	+0.056	-0.007	+0.004

30005535	D363	255,347.372	6,329,999.941	316.602	979,485.772	-28.908
30005535	D364	255,347.359	6,330,000.200	316.560	979,485.775	-28.913
		+0.013	-0.259	+0.042	-0.003	+0.005
30205485	D363	254,850.434	6,330,200.981	317.249	979,483.443	-30.951
30205485	D364	254,850.461	6,330,200.937	317.210	979,483.430	-30.971
		-0.027	+0.044	+0.039	+0.013	+0.020
30205525	D363	255,242.027	6,330,194.861	314.391	979,485.883	-29.085
30205525	D364	255,241.963	6,330,194.849	314.376	979,485.875	-29.096
		+0.064	+0.012	+0.015	+0.008	+0.011
27005525	D364	255,248.938	6,327,000.820	338.860	979,480.423	-32.113
27005525	D 1	255,249.005	6,327,000.986	338.860	979,480.414	-32.122
		-0.067	-0.166	+0.000	+0.009	+0.009
27005530	D364	255,298.524	6,327,000.791	339.412	979,480.510	-31.919
27005530	D 1	255,298.602	6,327,001.089	339.396	979,480.515	-31.916
		-0.078	-0.298	+0.016	-0.005	-0.003
27005535	D364	255,349.880	6,327,000.359	339.498	979,480.758	-31.655
27005535	D365	255,349.920	6,327,000.583	339.566	979,480.761	-31.638
		-0.040	-0.224	-0.068	-0.003	-0.017
27105525	D364	255,249.446	6,327,100.740	343.809	979,479.548	-31.940
27105525	D 1	255,249.241	6,327,101.109	343.743	979,479.549	-31.952
		+0.205	-0.369	+0.066	-0.001	+0.012
27105530	D364	255,301.147	6,327,098.340	344.197	979,479.662	-31.752
27105530	D365	255,301.360	6,327,098.482	344.245	979,479.669	-31.736
		-0.213	-0.142	-0.048	-0.007	-0.016
27105535	D364	255,351.457	6,327,092.519	344.122	979,479.853	-31.581
27105535	D365	255,351.446	6,327,092.525	344.182	979,479.852	-31.571
		+0.011	-0.006	-0.060	+0.001	-0.010
27305525	D364	255,253.880	6,327,299.131	350.349	979,478.288	-31.766
27305525	D365	255,253.861	6,327,299.214	350.337	979,478.277	-31.779
		+0.019	-0.083	+0.012	+0.011	+0.013

HUDDLETON GRAVITY SURVEY

Pt #	Day	E	N	H	G	Bouguer
7404700	D 2	246,999.705	6,307,398.363	210.017	979,513.496	-38.861
7404700	D 5	246,999.624	6,307,398.389	210.066	979,513.499	-38.849
		+0.081	-0.026	-0.049	-0.003	-0.012
7604700	D 2	246,997.159	6,307,599.243	212.955	979,512.682	-38.947
7604700	D 5	246,997.184	6,307,599.260	212.950	979,512.684	-38.946
		-0.025	-0.017	+0.005	-0.002	-0.001
7704700	D 2	246,999.638	6,307,697.331	214.371	979,512.350	-38.927
7704700	D 5	246,999.837	6,307,697.308	214.355	979,512.361	-38.920
		-0.199	+0.023	+0.016	-0.011	-0.007
7804700	D 2	247,000.075	6,307,797.320	215.013	979,512.193	-38.883
7804700	D 4	247,000.259	6,307,797.469	215.001	979,512.207	-38.872
		-0.184	-0.149	+0.012	-0.014	-0.011

7904700	D	2	246,995.703	6,307,900.631	216.490	979,511.884	-38.825
7904700	D	4	246,995.657	6,307,900.726	216.481	979,511.892	-38.819
			+0.046	-0.095	+0.009	-0.008	-0.006
8004695	D	2	246,948.976	6,308,000.966	219.199	979,511.315	-38.785
8004695	D	4	246,947.994	6,308,001.513	219.189	979,511.311	-38.791
			+0.982	-0.547	+0.010	+0.004	+0.006
8104700	D	2	246,998.072	6,308,100.016	218.920	979,511.350	-38.732
8104700	D	3	246,998.030	6,308,099.856	218.887	979,511.368	-38.720
			+0.042	+0.160	+0.033	-0.018	-0.012
8204685	D	2	246,850.036	6,308,196.038	218.240	979,511.307	-38.834
8204685	D	8	246,850.078	6,308,196.074	218.225	979,511.329	-38.815
			-0.042	-0.036	+0.015	-0.022	-0.019
8704690	D	2	246,895.878	6,308,701.019	225.940	979,509.327	-38.922
8704690	D	3	246,895.874	6,308,701.032	225.961	979,509.335	-38.910
			+0.004	-0.013	-0.021	-0.008	-0.012
8904715	D	2	247,149.648	6,308,900.579	223.343	979,509.075	-39.541
8904715	D	3	247,149.654	6,308,900.566	223.339	979,509.107	-39.510
			-0.006	+0.013	+0.004	-0.032	-0.031
9104740	D	2	247,402.788	6,309,099.245	216.388	979,510.488	-39.353
9104740	D	7	247,402.882	6,309,099.276	216.358	979,510.544	-39.303
			-0.094	-0.031	+0.030	-0.056	-0.050
9204730	D	2	247,299.976	6,309,197.882	220.122	979,509.564	-39.467
9204730	D	3	247,299.960	6,309,197.864	220.128	979,509.608	-39.421
			+0.016	+0.018	-0.006	-0.044	-0.046
9204740	D	2	247,400.492	6,309,199.381	219.525	979,509.698	-39.451
9204740	D	3	247,400.462	6,309,199.400	219.498	979,509.716	-39.438
			+0.030	-0.019	+0.027	-0.018	-0.013
9204745	D	2	247,452.147	6,309,195.961	217.528	979,510.243	-39.302
9204745	D	3	247,452.153	6,309,195.967	217.527	979,510.244	-39.301
			-0.006	-0.006	+0.001	-0.001	-0.001
8104720	D	3	247,199.126	6,308,099.730	213.509	979,512.704	-38.446
8104720	D	4	247,199.148	6,308,099.819	213.470	979,512.735	-38.423
			-0.022	-0.089	+0.039	-0.031	-0.023
8204720	D	3	247,199.485	6,308,195.125	213.223	979,512.467	-38.668
8204720	D	4	247,199.513	6,308,195.189	213.217	979,512.487	-38.649
			-0.028	-0.064	+0.006	-0.020	-0.019
9204675	D	3	246,750.963	6,309,197.026	232.224	979,508.104	-38.536
9204675	D	7	246,750.961	6,309,197.000	232.217	979,508.127	-38.514
			+0.002	+0.026	+0.007	-0.023	-0.022
9204705	D	3	247,049.182	6,309,198.785	224.176	979,508.977	-39.250
9204705	D	7	247,049.139	6,309,198.813	224.169	979,508.980	-39.249
			+0.043	-0.028	+0.007	-0.003	-0.001
9204710	D	3	247,100.279	6,309,199.481	222.685	979,509.105	-39.416
9204710	D	4	247,100.298	6,309,199.471	222.642	979,509.137	-39.393
			-0.019	+0.010	+0.043	-0.032	-0.023

9304705	D	3	247,051.555	6,309,300.615	224.937	979,508.677	-39.325
9304705	D	5	247,051.585	6,309,300.619	224.920	979,508.703	-39.302
			-0.030	-0.004	+0.017	-0.026	-0.023
9304710	D	3	247,071.702	6,309,296.426	224.928	979,508.630	-39.377
9304710	D	5	247,100.001	6,309,298.386	225.105	979,508.578	-39.393
			-28.299	-1.960	-0.177	+0.052	+0.016
9304735	D	3	247,351.622	6,309,300.368	221.316	979,509.310	-39.410
9304735	D	5	247,351.778	6,309,300.105	221.287	979,509.354	-39.372
			-0.156	+0.263	+0.029	-0.044	-0.038
7804705	D	4	247,049.080	6,307,799.273	215.079	979,512.141	-38.922
7804705	D	5	247,049.460	6,307,799.358	215.086	979,512.156	-38.906
			-0.380	-0.085	-0.007	-0.015	-0.016
8204740	D	4	247,400.595	6,308,199.990	209.422	979,512.707	-39.176
8204740	D	4	247,400.595	6,308,199.990	209.422	979,512.727	-39.156
			+0.000	+0.000	+0.000	-0.020	-0.020
6904775	D	7	247,749.108	6,306,899.753	186.910	979,519.771	-37.519
6904775	D	8	247,749.338	6,306,899.492	186.917	979,519.771	-37.518
			-0.230	+0.261	-0.007	+0.000	-0.001
7204775	D	7	247,748.178	6,307,199.525	195.934	979,517.330	-37.961
7204775	D	8	247,748.613	6,307,199.178	195.962	979,517.338	-37.948
			-0.435	+0.347	-0.028	-0.008	-0.013
7304700	D	7	247,012.378	6,307,305.862	208.453	979,513.997	-38.738
7304700	D	8	247,012.485	6,307,304.983	208.415	979,513.993	-38.750
			-0.107	+0.879	+0.038	+0.004	+0.012

HICKS QUARRY GRAVITY SURVEY

Pt #	Day	E	N	H	G	Bouguer
19505670	D 6	256,707.180	6,319,493.014	260.126	979,506.039	-27.612
19505670	D 7	256,707.162	6,319,493.068	260.092	979,506.081	-27.577
		+0.018	-0.054	+0.034	-0.042	-0.035
19705700	D 6	256,999.360	6,319,698.873	264.079	979,504.484	-28.242
19705700	D 7	256,999.823	6,319,698.861	264.069	979,504.521	-28.207
		-0.463	+0.012	+0.010	-0.037	-0.035
19905690	D 6	256,899.303	6,319,886.966	264.364	979,504.131	-28.396
19905690	D 7	256,899.322	6,319,886.920	264.365	979,504.144	-28.383
		-0.019	+0.046	-0.001	-0.013	-0.013
20005700	D 6	257,008.141	6,319,997.323	267.133	979,503.719	-28.184
20005700	D 7	257,008.278	6,319,997.065	267.160	979,503.749	-28.148
		-0.137	+0.258	-0.027	-0.030	-0.036

Bouguer – Elevation Profiles

Please refer to the folders titled 'Bouguer – Elevation Profiles' on the accompanying CD for bit map images of all the lines completed throughout the project.

Mag A Gravity Survey, Bouguer – Elevation Profiles available for the following lines:

Line	Line	Line
2370	2450	2530
2380	2460	2540
2390	2470	2550
2400	2480	2560
2410	2490	2570
2420	2500	2580
2430	2510	2590
2440	2520	2600

Mag G Gravity Survey, Bouguer – Elevation Profiles available for the following lines:

Line	Line	Line	Line	Line
2650	2730	2810	2890	2970
2660	2740	2820	2900	2980
2670	2750	2830	2910	2990
2680	2760	2840	2920	3000
2690	2770	2850	2930	3010
2700	2780	2860	2940	3020
2710	2790	2870	2950	
2720	2800	2880	2960	

Huddleton Gravity Survey, Bouguer – Elevation Profiles available for the following lines:

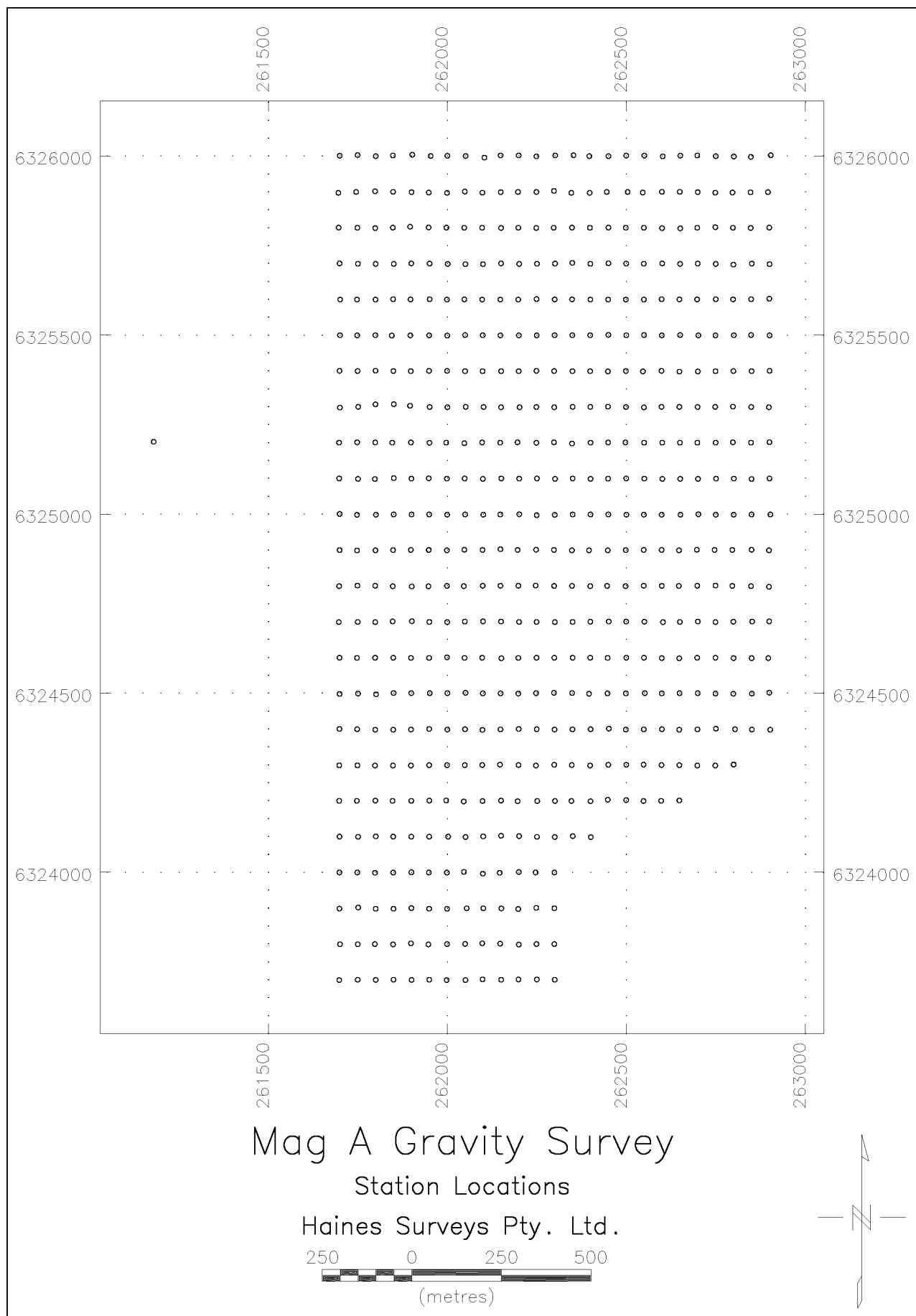
Line	Line	Line	Line
0690	0760	0830	0900
0700	0770	0840	0910
0710	0780	0850	0920
0720	0790	0860	0930
0730	0800	0870	0940
0740	0810	0880	
0750	0820	0890	

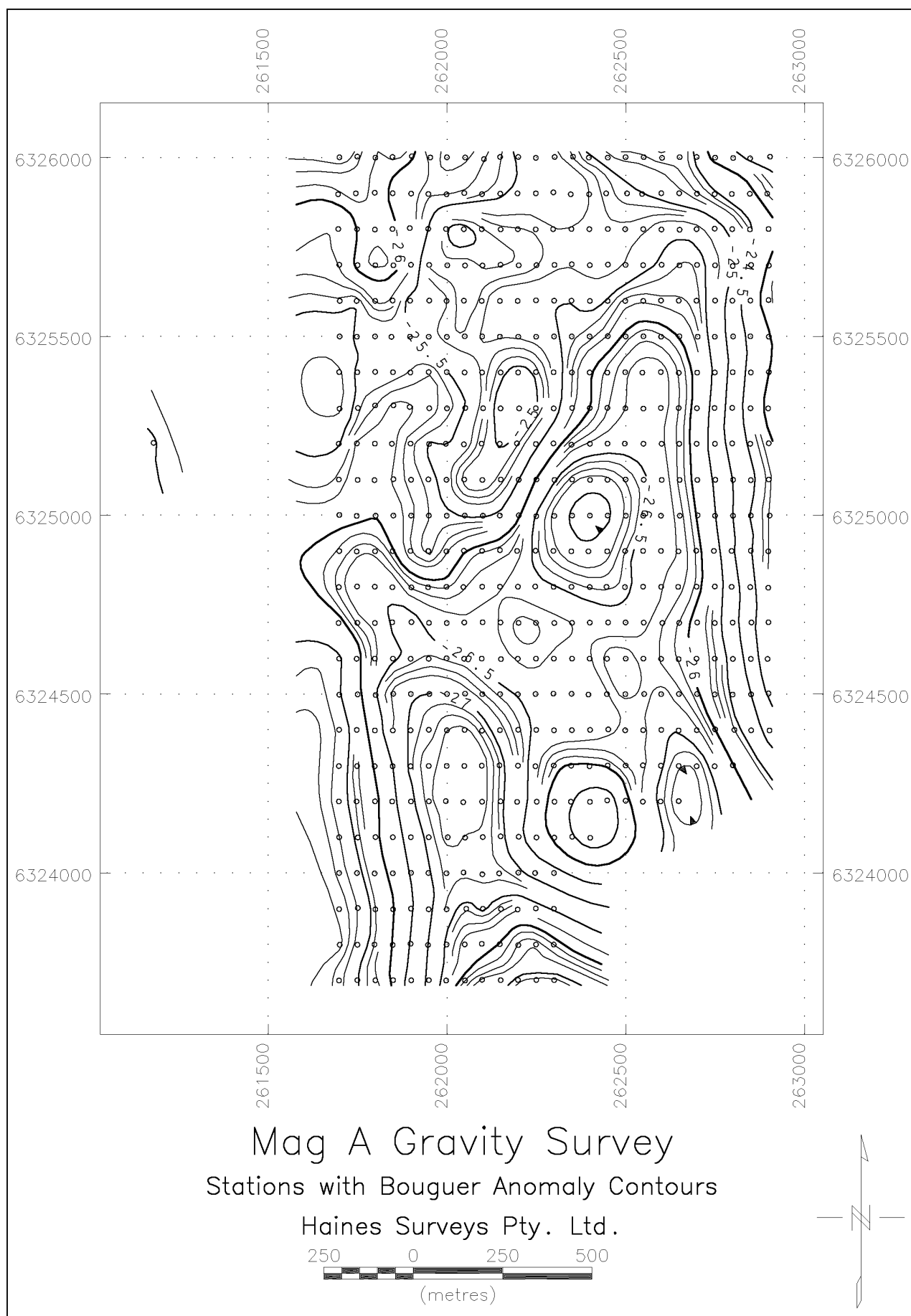
Hicks Quarry Gravity Survey, Bouguer – Elevation Profiles available for the following lines:

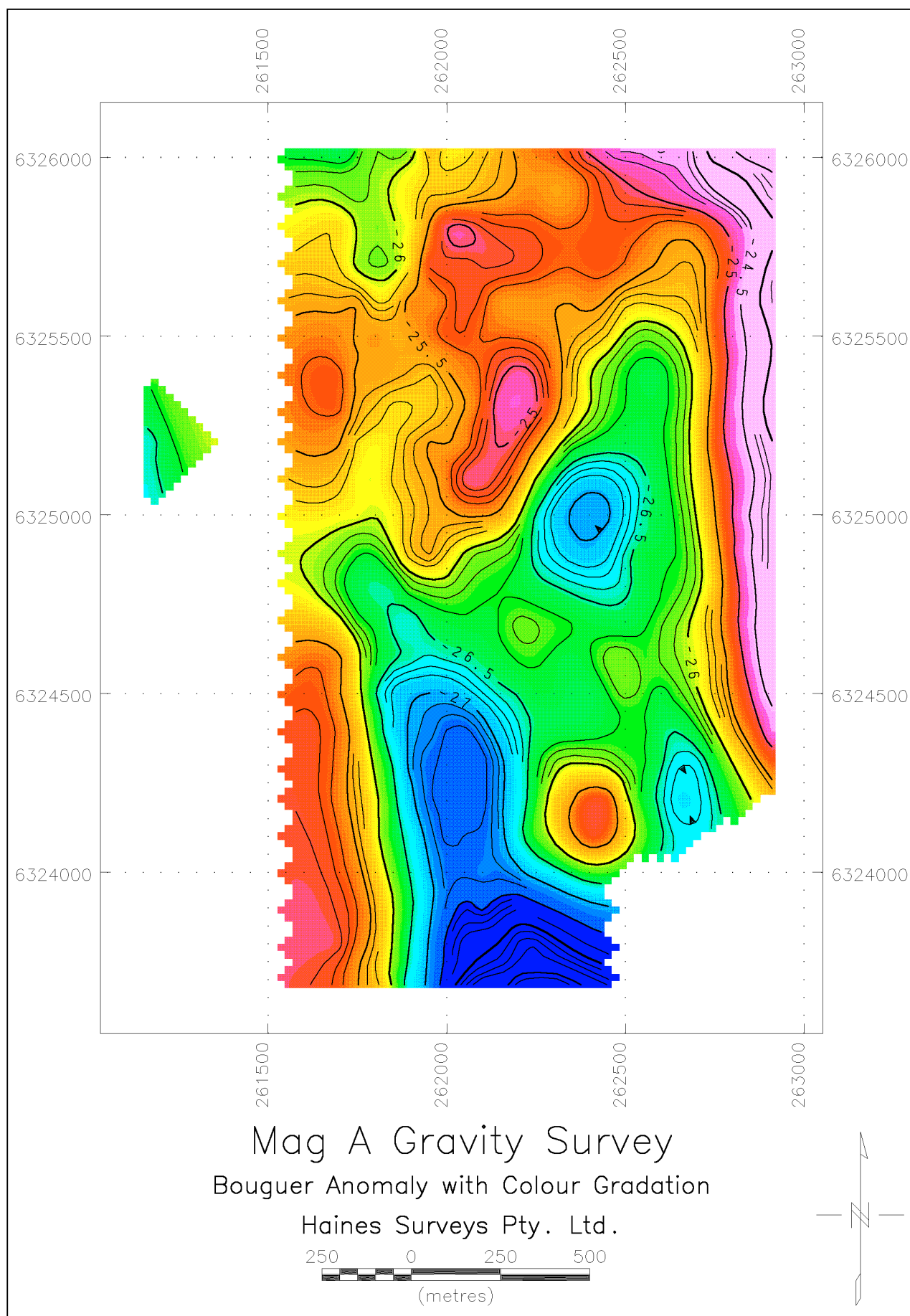
Line
1000
1950
1960
1970
1980
1990

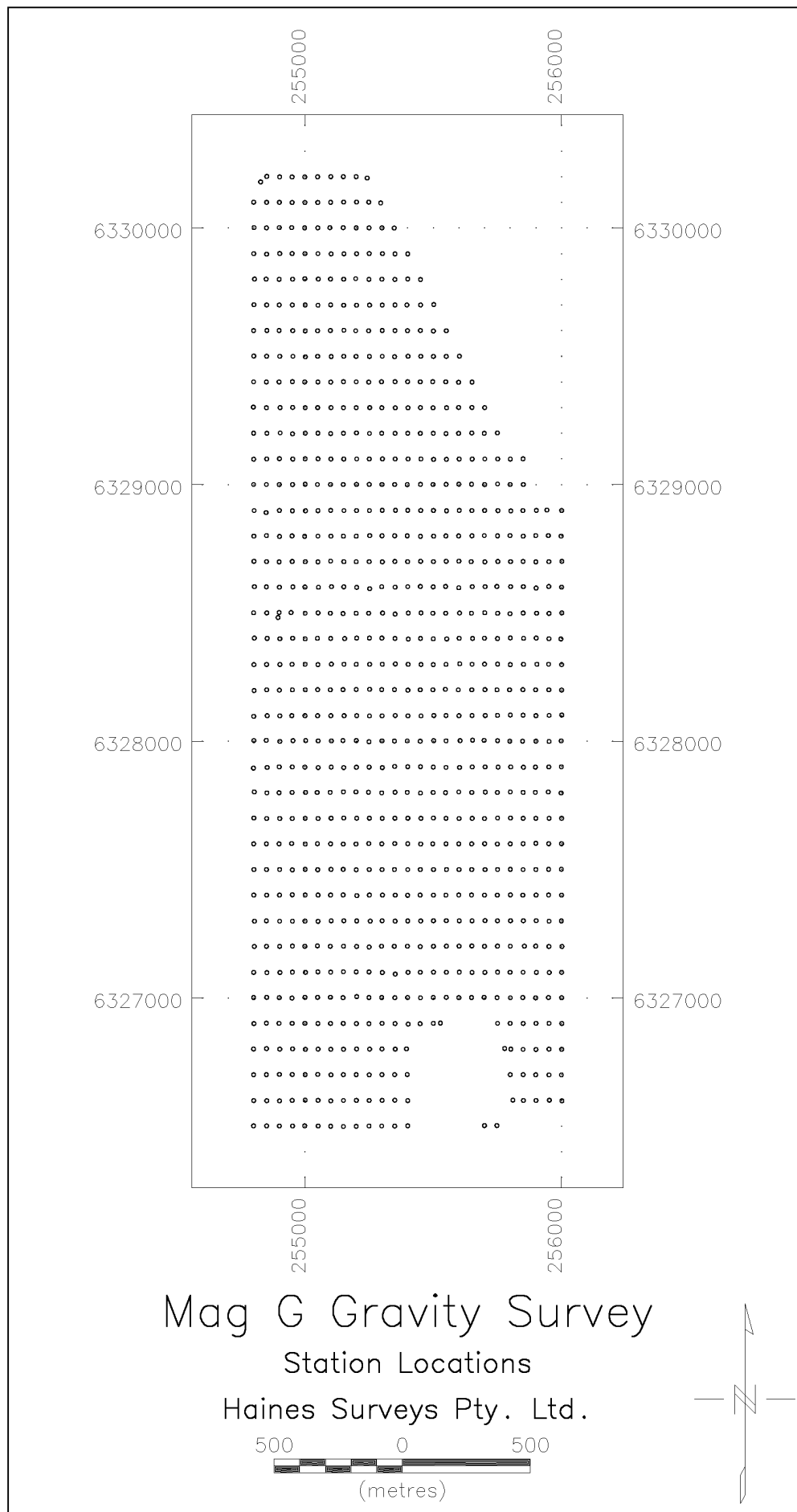
Plots

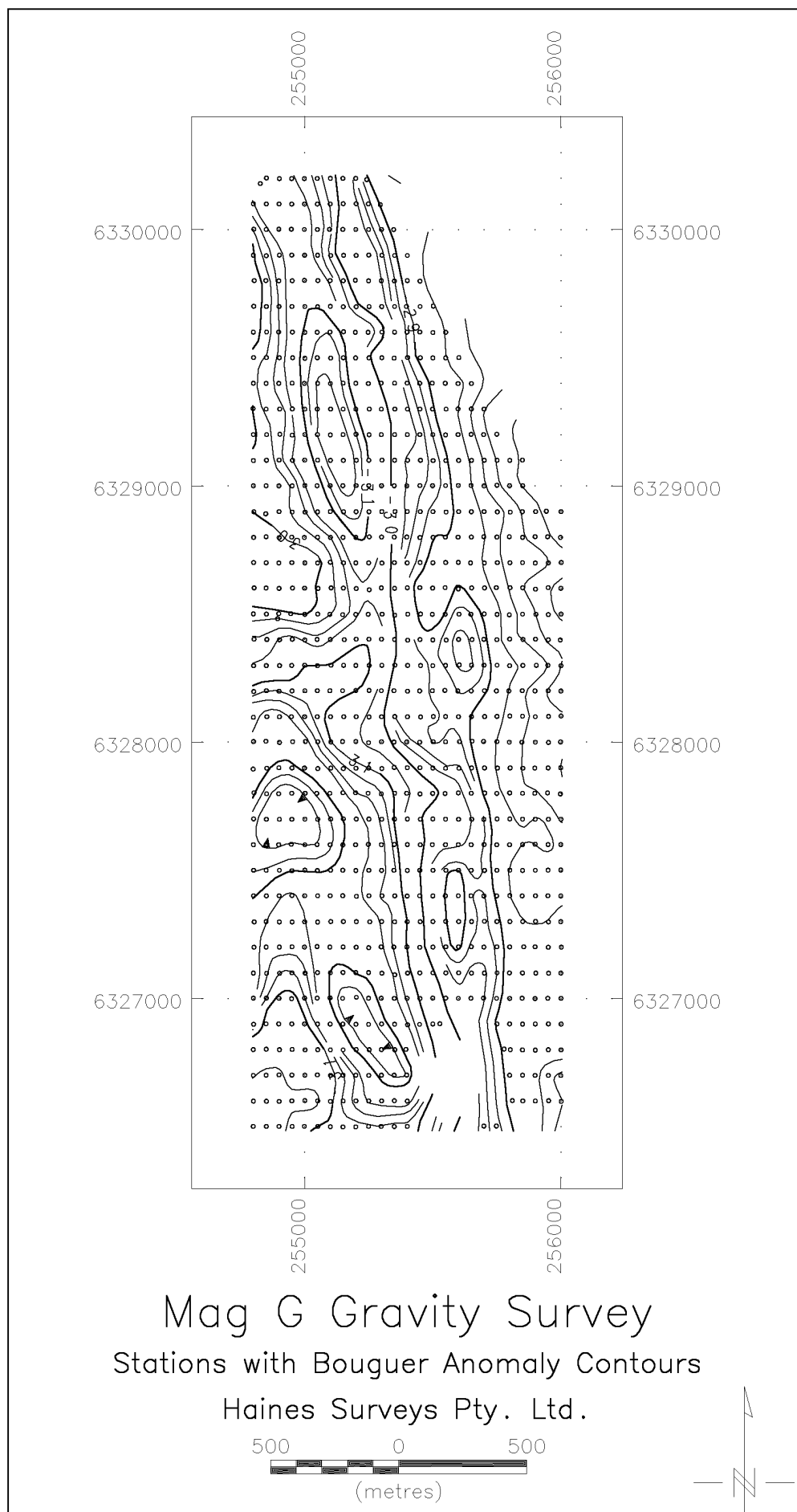
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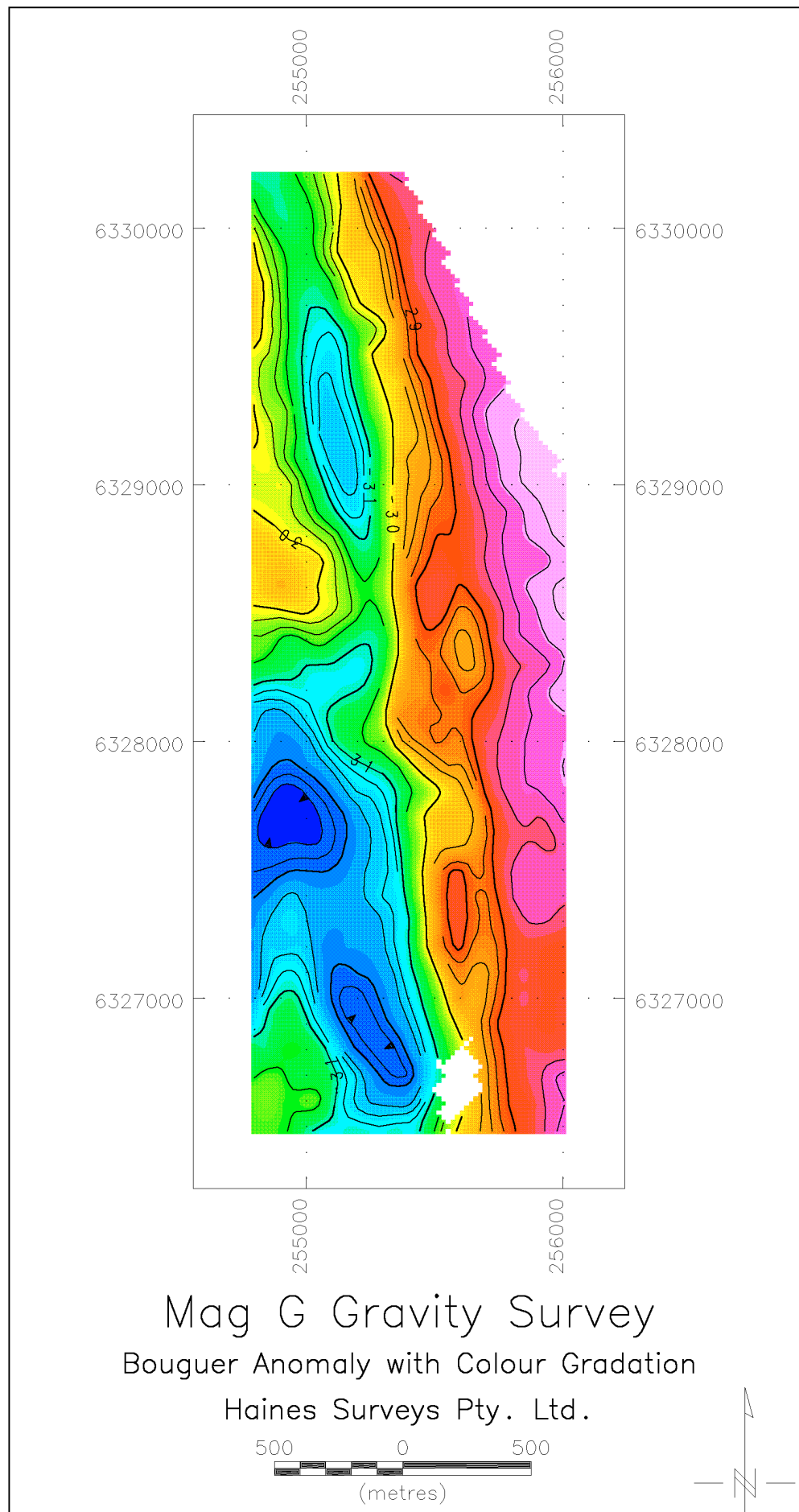


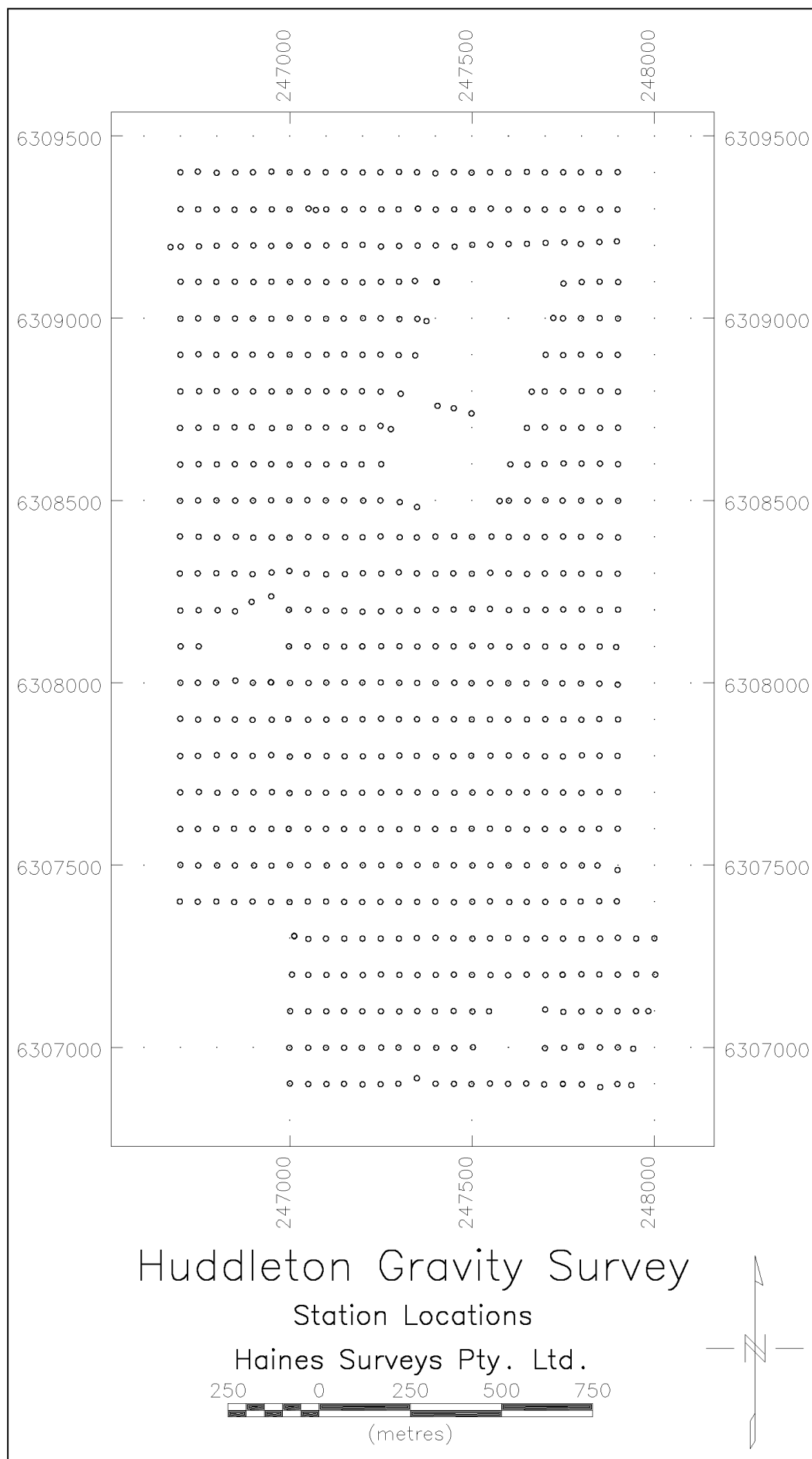


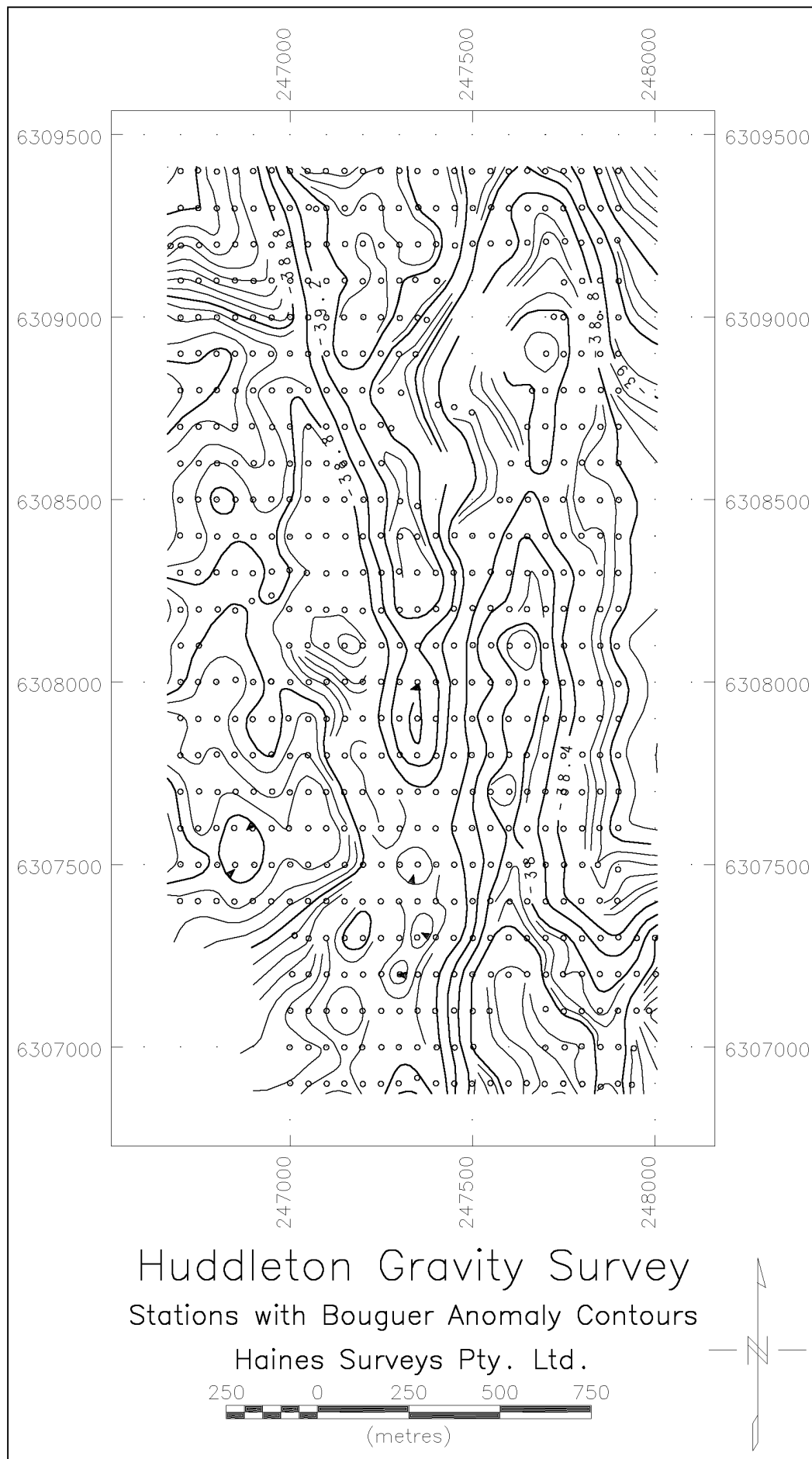


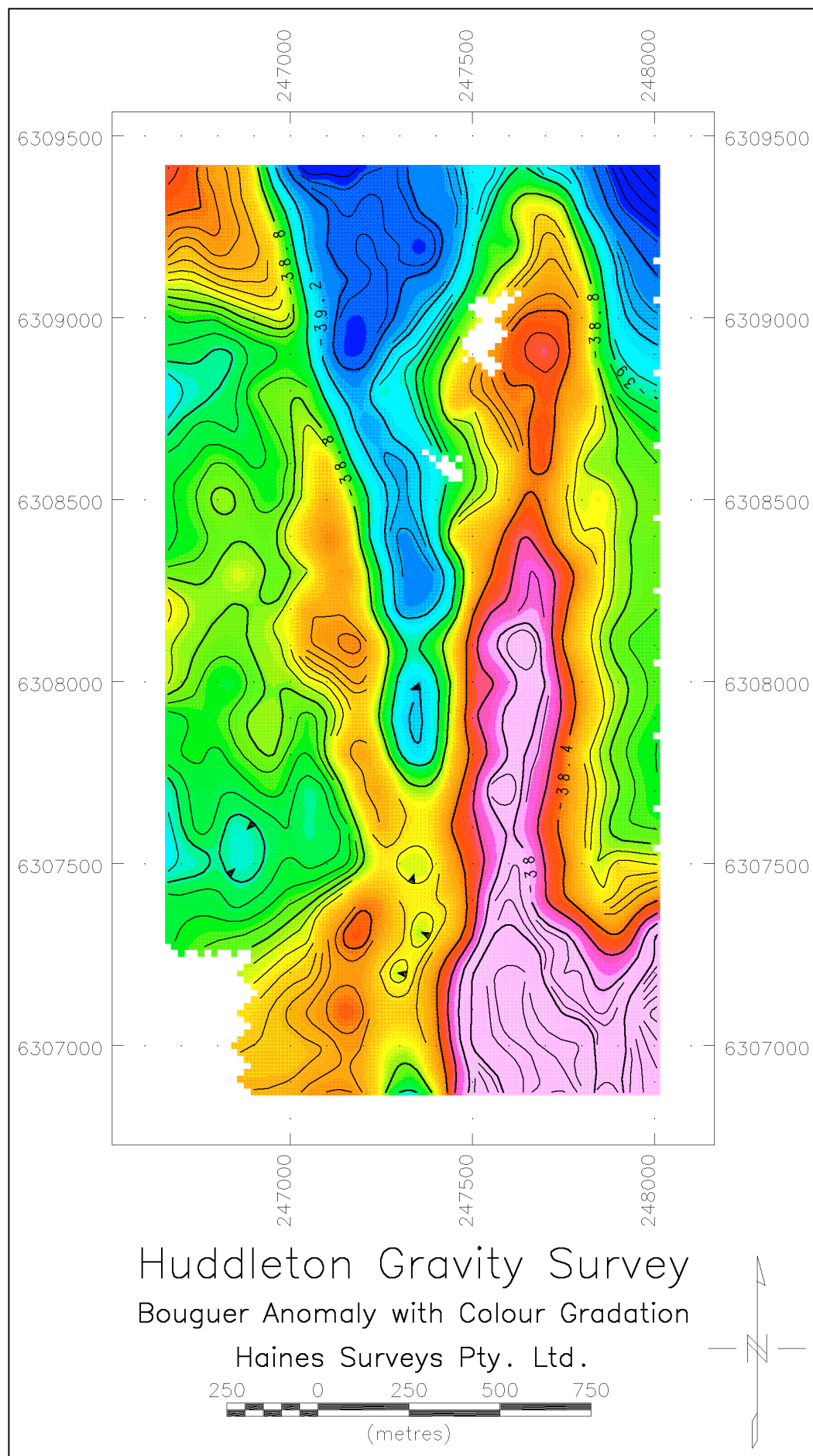


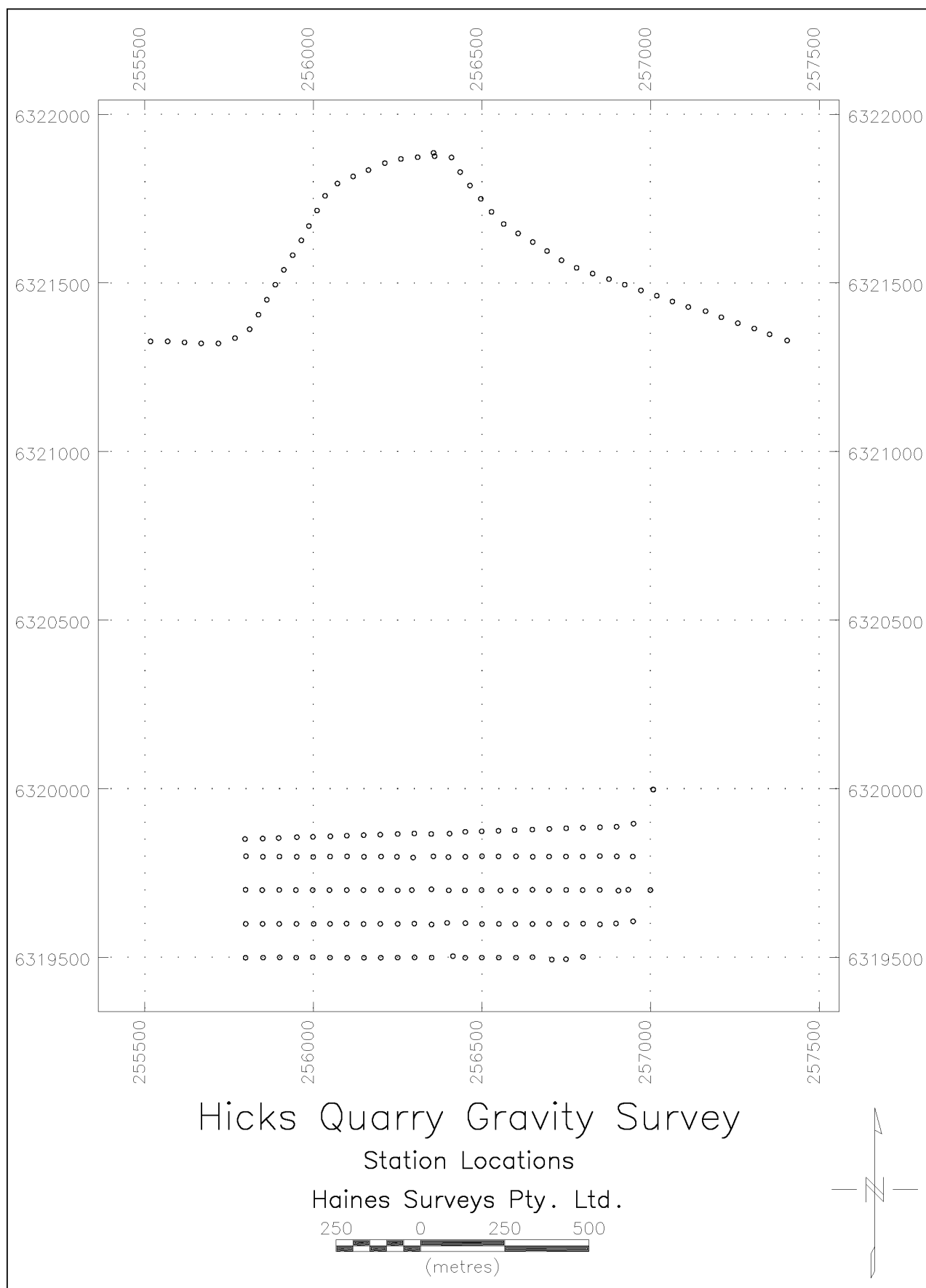


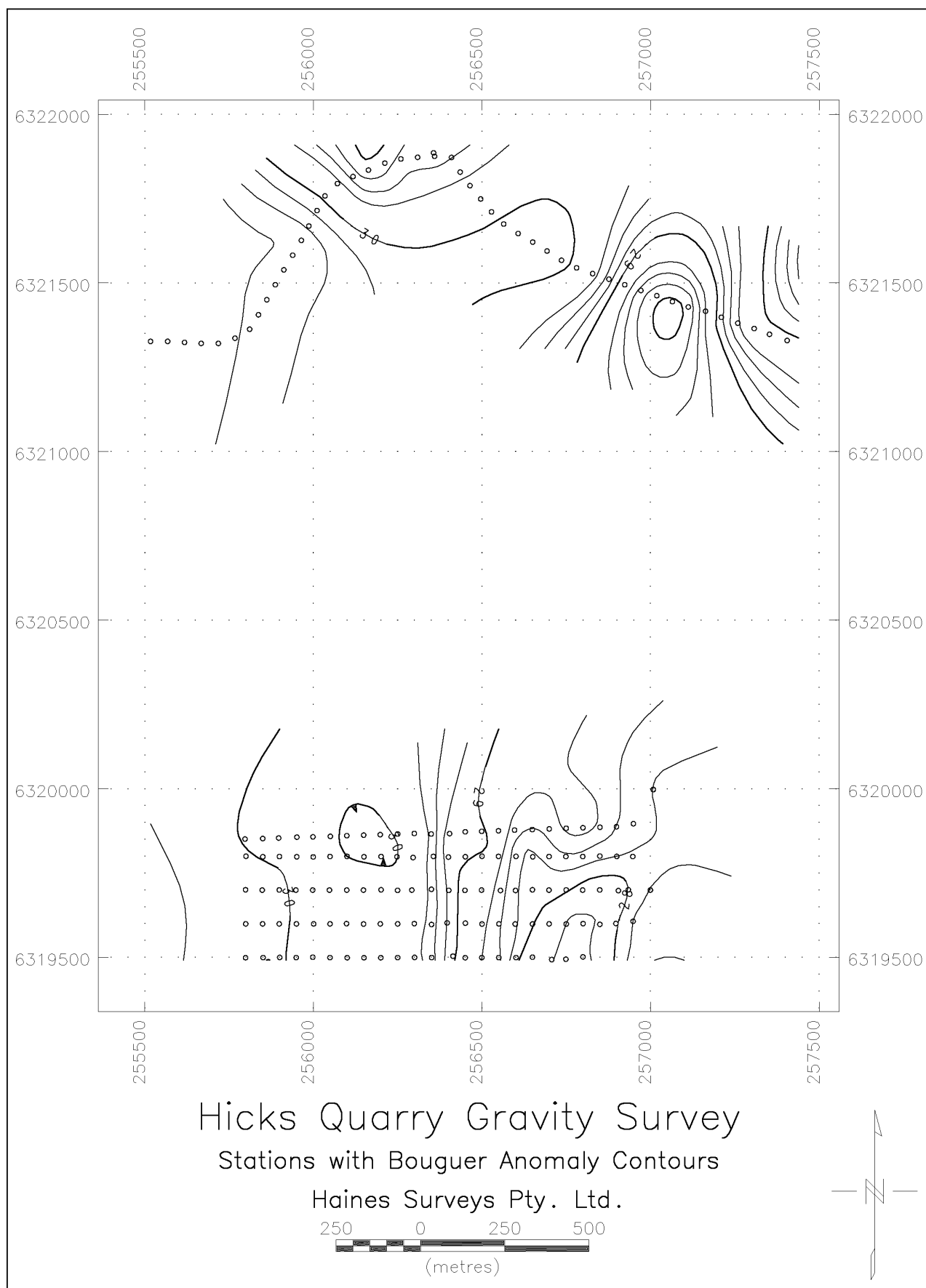


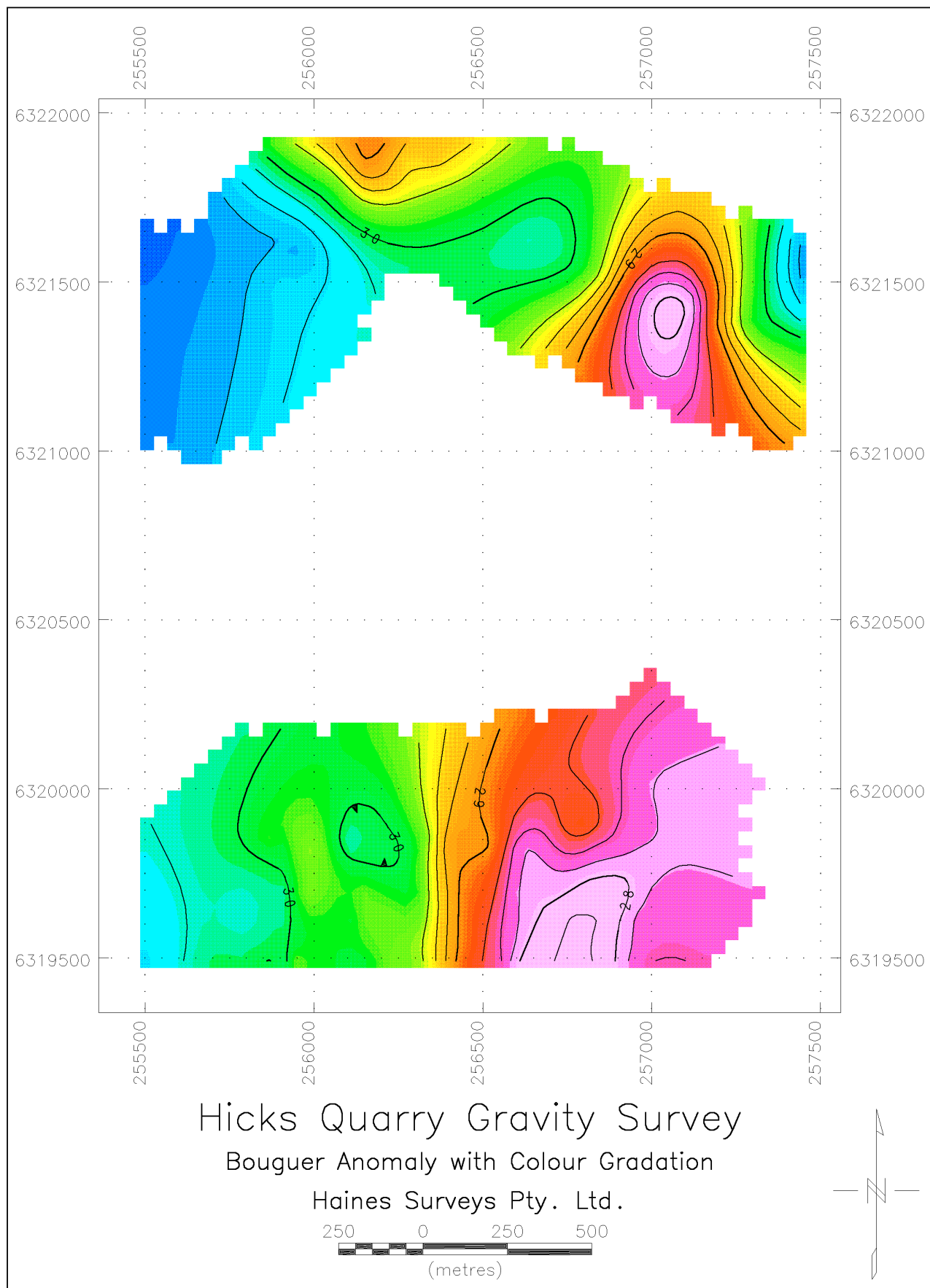












Processed Results

MAG A GRAVITY SURVEY (see .TXT & .CSV files for raw data)

COPPER RANGE (SA) PTY LTD



ANNUAL TECHNICAL REPORT 23rd June 2010 to 22nd June 2011

EL 4268 – Gladstone

TITLE: ANNUAL TECHNICAL REPORT FOR
EL 4268 – Gladstone for the Period
Ending 22nd June 2011

HOLDER: COPPER RANGE (SA) Pty Ltd

OPERATOR: COPPER RANGE (SA) Pty Ltd

1:250,000 SHEET: Burra SI 54-05

1:100,000 SHEET: Pirie 6531

AUTHOR: Mark Arundell

SUBMITTED BY: Fran Parker

DATE: September 2011

KEYWORDS: Adelaide Fold Belt, gravity, iron ore,

DISTRIBUTION:

1. Copper Range (SA) Pty Ltd, Perth Office
2. Department of Primary Industries and Resources,
South Australia

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SUMMARY

EL 4268 – Gladstone lies approximately 190km to the north of Adelaide.

The area was applied for to cover historic iron occurrences and identified magnetic anomalies considered to have similar characteristics to the Hicks Quarry target on the adjacent tenement – EL 4368.

Outcrop is limited with most of the tenement being covered with Tertiary and Quaternary sediments. Basement lithologies are Neoproterozoic units of the Burra Group and are composed of sandstone, siltstone, dolomite and other sediments.

A robust gravity anomaly which had been previously defined at the Huddleston prospect was drill tested.

Expenditure for the period totalled \$70,737

EL	RC Drill holes	Total metres (RC)
4268	3	1,144

1. INTRODUCTION

The Gladstone tenement was taken out by Copper Range (SA) Pty Ltd and covers a large strike length of units considered prospective for iron ore mineralisation within the Adelaide Fold Belt. Tenement details are summarised in Table 1.

The historic Huddleston Iron Mine was identified as an immediate target and subsequent investigation delineated a magnetic target identified by a previous explorer. The target was drill tested in July 2010.

2. LOCATION AND ACCESS

The Gladstone tenement (EL 4268) is located approximately 190km north of Adelaide (Figure 1). The tenement is accessed via the Main North road which passes through Gladstone in the centre of the tenement. Numerous formed roads traverse the tenement.

The Gladstone EL is covered by the Burra 1:250,000 sheet (SI 54-05). No National Parks or restricted areas are noted over the tenements, according to the PIRSA state GIS dataset.

The Gladstone EL is covered by the Nukunnu Native Title Claim (No. SC96/5). No other claims are known in the area at this time.

3. TENURE DETAILS

The Gladstone tenement EL 4268 was taken out by Copper Range (SA) Pty Ltd, a wholly-owned South Australian subsidiary of Copper Range Ltd that was floated on the ASX as an independent company in December 2006. Tenement details are summarised in Table 1.

Tenement number	Date granted	Expiry date	Renewal date	Project name	Licensee and operator	Locality	Area km ²
EL 4268	02/01/09	22/06/12	22/05/12	Gladstone	Copper Range (SA) Pty Ltd	190km N of Adelaide	316

Table 1. Summary of tenement details

4. GEOLOGY

4.1 Regional geological setting

Regionally, the area lies within the Adelaide Fold and Thrust Belt, which contains Proterozoic to late Cambrian sedimentary sequences. Rock types recognised within this Precambrian, fault-bounded intracratonic trough are Neoproterozoic in age (1400 to 570 Ma) with terrestrial and marine clastic, chemical and glaciogenic sediments (Preiss 1987). These formations have been deformed and metamorphosed (generally to greenschist facies) by at least two major orogenic episodes: the Proterozoic Adelaide Fold Belt orogenic event and the later Early Palaeozoic Delamerian Orogeny (Preiss 1987). Following uplift caused by these deformations, erosion of the exposed older formations has taken place and younger Palaeozoic and Cainozoic sediments unconformably overly the Adelaidean sequences in places.



Figure 1 – EL 4268 Gladstone

The Gladstone project area predominantly covers Adelaidean sediments of the Burra and Wilpena Groups, as well as the Yudnamutana subgroup of the Umberatana Group. These sediments generally strike northwest and have been folded into a series of tight synclines and domes. Other structural complexities are associated with areas of outcropping diapiric breccia (correlated with the Willouran Callana Group evaporitic sediments) at points of structural weakness or in anticlinal cores.

5.0 PREVIOUS EXPLORATION

CRA

After an unsuccessful search for kimberlitic material in the area, CRA undertook a geophysics and drilling program near the old Charlton Copper Mine. CRA was following up on previous aeromag, E.M. and radiometric surveys carried out by Westchester Mining Corporation. CRA ran an IP survey of 3000m on 3 different lines (50m reading spacing), which showed an anomaly they thought might be related to carbonaceous shale and sulfide in the Tapley Hill Formation. To test the anomaly, thought to be around 50m depth, CRA drilled 4 percussion holes but failed to hit the anomaly due to poor drilling conditions and hole collapse; however, trace chalcopyrite was noted in one hole (18m depth). They then completed ground magnetic surveys in the anomalous area that picked out a mag anomaly of unusual and undefined shape, which they concluded was either creek debris or a buried man-made object. They persisted in drilling the original IP anomaly with a diamond drill hole. The 150m hole intersected only stringers of pyrite and graphite with trace chalcopyrite and galena between 16 and 114 meters. CRA concluded that the stringers were the source of the IP anomaly.

Cultus Pacific

Cultus Pacific undertook preliminary reconnaissance and sampling of the CRJ area near the Charlton Mine and to the east of the Hick's Ironstone Mine. They noted several aeromagnetic anomalies from Westchester Mining's previous work; however, the relevant pages are missing from the Cultus Pacific envelope and the Westchester SML is not available for download. Cultus did little substantial work, but identified the Yanga Prospect as an area of possible interest.

Jingellic Minerals

Jingellic Minerals took up their exploration over part of what is now the Caltowie tenement in search of kimberlitic material. They undertook a fracture study and focused on areas of lineament intersection. One of these intersections (D) is on CRJ ground. 258 ground magnetic readings were taken over a 2.7km² area. Four magnetic anomalies were discovered and sampled for kimberlitic indicator minerals. No anomalous copper values were present in this area, but geochemical evidence points to a small buried mafic intrusion, possibly dolerite.

Inca Resources (JV with Craton Resources)

Inca Resources re-examined old aeromagnetic and ground magnetic data from CRA and Westchester Mining previous work. They drilled the two prominent magnetic anomalies (apparent on the regional TMI map) with an RC rig to test them. In the northern anomaly, they placed two drillholes: LRC-1 and LRC-3. LRC-1 collapsed, but from >15-37m they recorded massive to clay-banded black hematite ironstone underlain by silicified siltstone/silcrete with ochre-yellow hematite veinlets. In hole LRC-3 from 20-43m, Inca reported siltstone clay with quartzite-ironstone-dolomitic siltstone gravel. From 42-169m dolomitic siltstone interbedded with dolomitic limestone underlain by massive to bedded pale green to reddish gray siltstone with hm alteration and scattered pyrite were recorded. At the southern mag anomaly, Inca and Craton Resources drilled hole LRC-2 which passed through dolomitic siltstone interbedded with dolomitic limestone with locally abundant pyrite

in calcite veins and disseminated throughout the rock (depth of 86m). No significant base metal intersections were noted.

6. WORK COMPLETED BY COPPER RANGE (S.A) PTY LTD

During the first year of tenure the Company prioritised the defined magnetic anomalies and the Hicks, Magnetic anomaly "A" and Huddleston targets had detailed gravity surveys (100m x 100m) conducted over them to define the potential extent of high grade haematite mineralisation..

At the Huddleston prospect, a +2km long, 1.2mgal gravity target has been defined adjacent to the historic Huddleston Iron Mine. The target is thought to represent a shallowly buried massive ironstone. The Huddleston workings may represent the surficial reworking of this target. (Haines gravity data in 2010 annual report)

Drilling of the Huddleston Gravity target took place in July 2010 but no significant mineralisation was intersected. (data attached)

7. CONCLUSIONS AND RECOMMENDATIONS

Testing of the robust anomaly outlined by the gravity survey revealed no significant mineralisation.

Further work on EL 4268 will be dependent on the results of follow up drilling of the Hicks prospect on adjacent EL 4368 to be conducted late 2011.

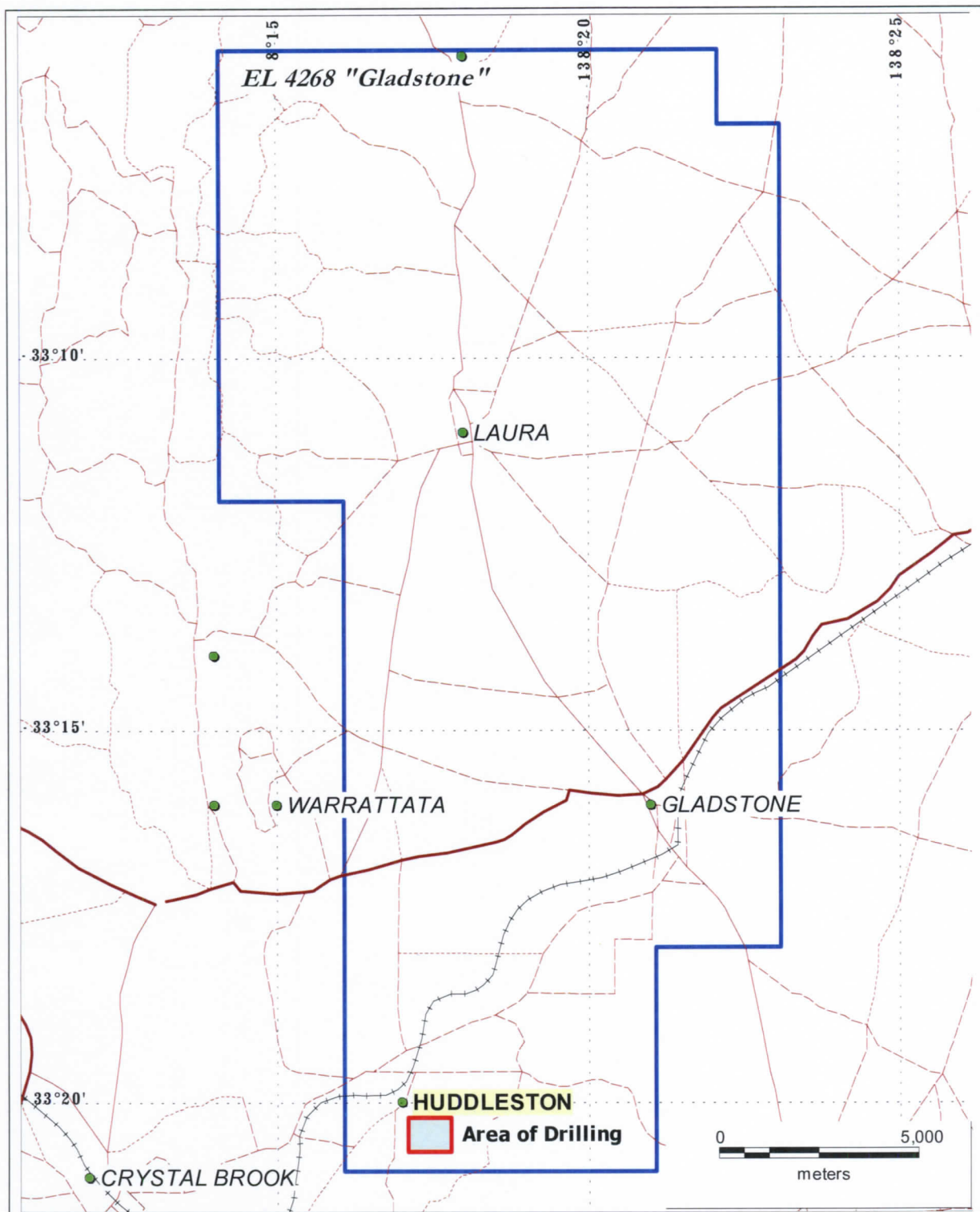


Figure 2 – EL 4268 Activity Plan

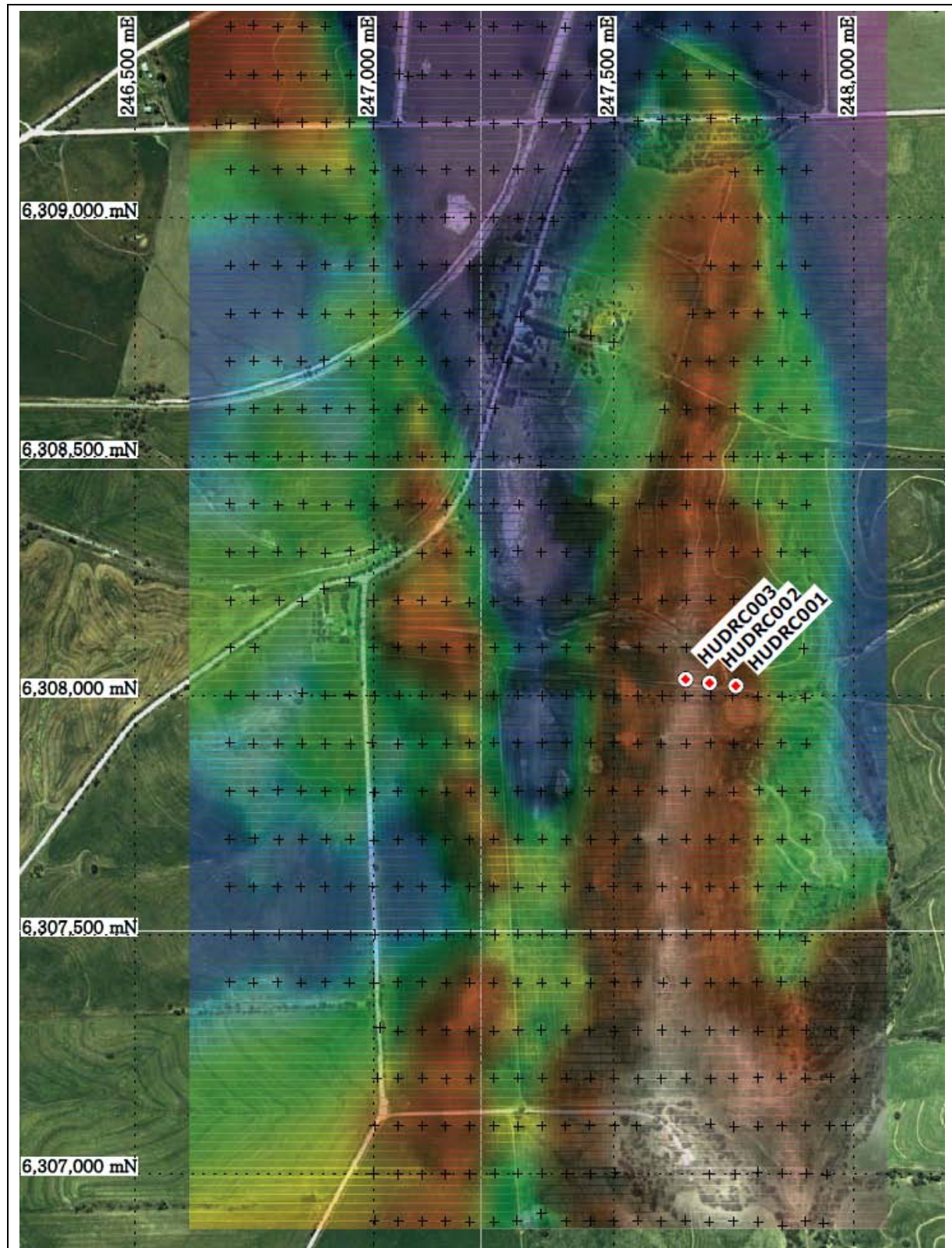


Figure 3 – EL 4268 Huddleston Prospect. RC drilling locations on gravity image

8. EXPENDITURE STATEMENT

Job #	Memo	Debit
5-0002	Consultant - Geology	\$18,100.00
5-0010	Consultant - Casual Employees	\$2,012.50
5-0016	Field Consumables - Equipment	\$6,375.43
5-0050	Assaying	\$1,459.80
5-0085	General Expenses	\$44.54
5-0103	Drilling - RC	\$25,954.55
5-0110	Equipment Hire	\$250.00
5-0115	Field - Supplies (Food)	\$167.90
5-0134	Phone - Fax	\$118.16
5-0140	Postage / Couriers - Office	\$13.41
5-0150	Site Office, Storage shed hire	\$109.09
5-0170	Accommodation	\$3,340.53
5-0175	Airfares	\$4,407.36
5-0180	Meals	\$14.90
5-0185	Transportation Expenses	\$128.89
5-0190	Motor Vehicle Hire	\$1,159.29
5-0194	Motor Vehicle - Fuel/Maintenan	\$650.23
	TOTAL	\$64,306.58
	Overheads @10%	\$6,430.66
	GRAND TOTAL	\$70,737.24

19 July 2012

Records Officer
Mineral Tenements – DMITRE
GPO Box 1264
ADELAIDE SA 5001

Dear Sir/Madam,

Gladstone (EL 4268)
Letter in lieu of Final Technical Report for the period ending 22 June 2012

As no work, was carried out on the tenement during the period of tenure, we respectfully request that this letter be accepted in lieu of an annual technical report.

Please contact me if you require further information, phone 8431 2785, mobile 0466 580 672, email fran.parker@westnet.com.au.

Yours sincerely,



Fran Parker (Dr)
Tenement Consultant