

Job:-2273-Located-Data-Verification-Images

MagRadReadMe.txt

GENERAL

Project 2273
Survey area Heemskirk, NW Tasmania
Located data type 0.1 Second Final Data

Surveyed by GPX AIRBORNE PTY LTD.
Job number 2273
Processed by GPX AIRBORNE PTY LTD.
Creation date March 2007

SURVEY SPECIFICATIONS

Survey flown February 2007
Traverse line spacing 50 metres
Traverse line direction 090-270 degrees
Tie line spacing 500 metres
Tie line direction 000-180 degrees

Survey height 80 metres

LOCATED DATA FORMAT

Variable	Units	Undefined	From	To	Format
Line number		9999999	1	8	I8
Easting (Transverse Mercator) metres		9999999.99	9	19	F11.2
Northing (Transverse Mercator)metres		9999999.99	20	30	F11.2
Fiducial		99999.99	31	39	F9.2
Flight number		999	40	43	I4
Direction (1=E, 2=N, 3=W, 4=S)		9	44	45	I2
Date (YYYYMMDD)		99999999	46	54	I9
Time (GPS)	seconds	99999.99	55	63	F9.2
Longitude (WGS84)	degrees	999.999999	64	74	F11.6
Latitude (WGS84)	degrees	999.999999	75	85	F11.6
Radar altimeter	metres	9999.9	86	92	F7.1
GPS altitude	metres	9999.9	93	99	F7.1
Raw magnetics	nT	99999.999	100	109	F10.3
Post compensated magnetics	nT	99999.999	110	119	F10.3
Diurnal	nT	99999.999	120	129	F10.3
Final magnetics	nT	99999.999	130	139	F10.3
Pressure	millibars	9999.9	140	146	F7.1
Temperature	degrees C	99.9	147	151	F5.1
Raw total count	cps	999999	152	158	F7.0
Raw potassium	cps	9999	159	163	F5.0
Raw uranium	cps	9999	164	168	F5.0
Raw thorium	cps	9999	169	173	F5.0
Raw cosmic	cps	99999.9	174	178	F5.0
Final total count	cps	99999.99	179	187	F9.2
Final potassium	cps	99999.99	188	196	F9.2
Final uranium	cps	99999.99	197	205	F9.2
Final thorium	cps	99999.99	206	214	F9.2
Final DTM	metres	99999.9	215	222	F8.1

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DATA PROCESSING

COORDINATE DATA

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- 1) A 'smooth' edge outside the area boundary.
- 2) Maximum line overlap of 0 fiducials within the area boundary.

The local projection is a UTM projection based on the WGS84 spheroid with a central meridian of 147 East degrees. System parallax of 0.6 fiducial has been removed.

MAGNETIC DATA

The magnetic data has been corrected for regional gradient by subtraction of IGRF model 2005 computed continuously over the whole area based on the GPS height.

Diurnal magnetic variations have been removed.

System parallax of 1.6 fiducial has been removed.

Tie-line levelling has been applied.

Microlevelling has been applied.

A base value of 61900 nT has been added to the data.

RADIOMETRIC DATA

Raw channel data provided has been energy calibrated

NASVD has been applied to channel data prior to windowing

System parallax of 0.0 fiducial has been removed.

Height attenuated to 80m AGL

Airborne radon has been removed

AIRCRAFT BACKGROUND

		UNITS
Total Count	81.67	cps
Potassium	23.35	cps
Uranium	0.59	cps
Thorium	0.67	cps

COSMIC STRIPPING RATIOS

Total Count	0.811201
Potassium	0.044663
Uranium	0.038646
Thorium	0.043791

COMPTON STRIPPING RATIOS

alpha	0.250
beta	0.400
gamma	0.810
a	0.060

HEIGHT ATTENUATION COEFFICIENT

Total Count	0.006928	per metre
Potassium	0.009043	per metre
Uranium	0.007186	per metre
Thorium	0.006892	per metre

WINDOW ENERGY LEVELS

	Low Energy	High Energy	
Total Count	410.0	2810.0	keV
Potassium	1370.0	1570.0	keV
Uranium	1660.0	1860.0	keV
Thorium	2410.0	2810.0	keV

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DIGITAL TERRAIN MODEL DATA

DIGITAL TERRAIN MODEL CALCULATION

The radar altimeter data was subtracted from the GPS heights to provide a digital elevation model which is height above the WGS84 spheroid. Using interpolation on the 120 second DMA Geoid model, a correction was computed and subtracted from the WGS84 data to convert to height above the geoid.

DATA RELIABILITY

This Digital Terrain Model (DTM) has been computed from data generated during the course of an airborne geophysical survey flown at a nominal spacing of 50m and data has been interpolated between such lines. Every effort has been made to make this model a useful general reference. No guarantee can be made that this model is a true representation of height above sea level as it can contain radar altimeter responses from buildings and in some instances dense timber. Users of the product should be aware of the topographic limitations mapped herewithin. Do not use this DTM for navigation purposes.

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Located data type 1 Second Radiometric Data

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Raw potassium	cps	9999	112	116	F5.0
Raw uranium	cps	9999	117	121	F5.0
Raw thorium	cps	9999	122	126	F5.0
Raw cosmic	cps	99999.9	127	131	F5.0
Final total count	cps	99999.99	132	140	F9.2
Final potassium	cps	99999.99	141	149	F9.2
Final uranium	cps	99999.99	150	158	F9.2
Final thorium	cps	99999.99	159	167	F9.2
Raw 256 channel data	cps	999	168	1191	I4
Energy calibrated 256 channel	cps	9999.9	1192	2983	F7.1

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HEIGHT ATTENUATION COEFFICIENT

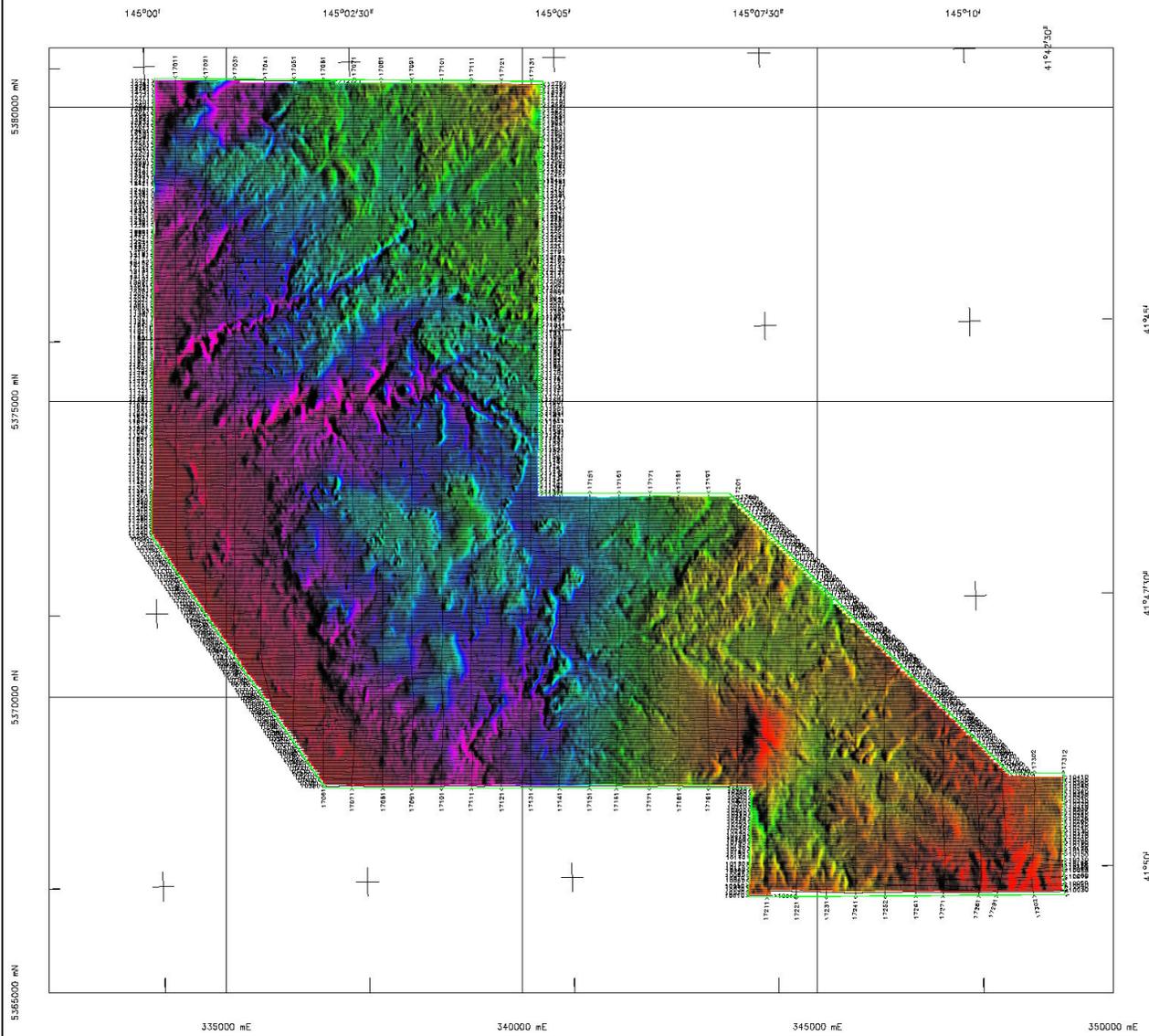
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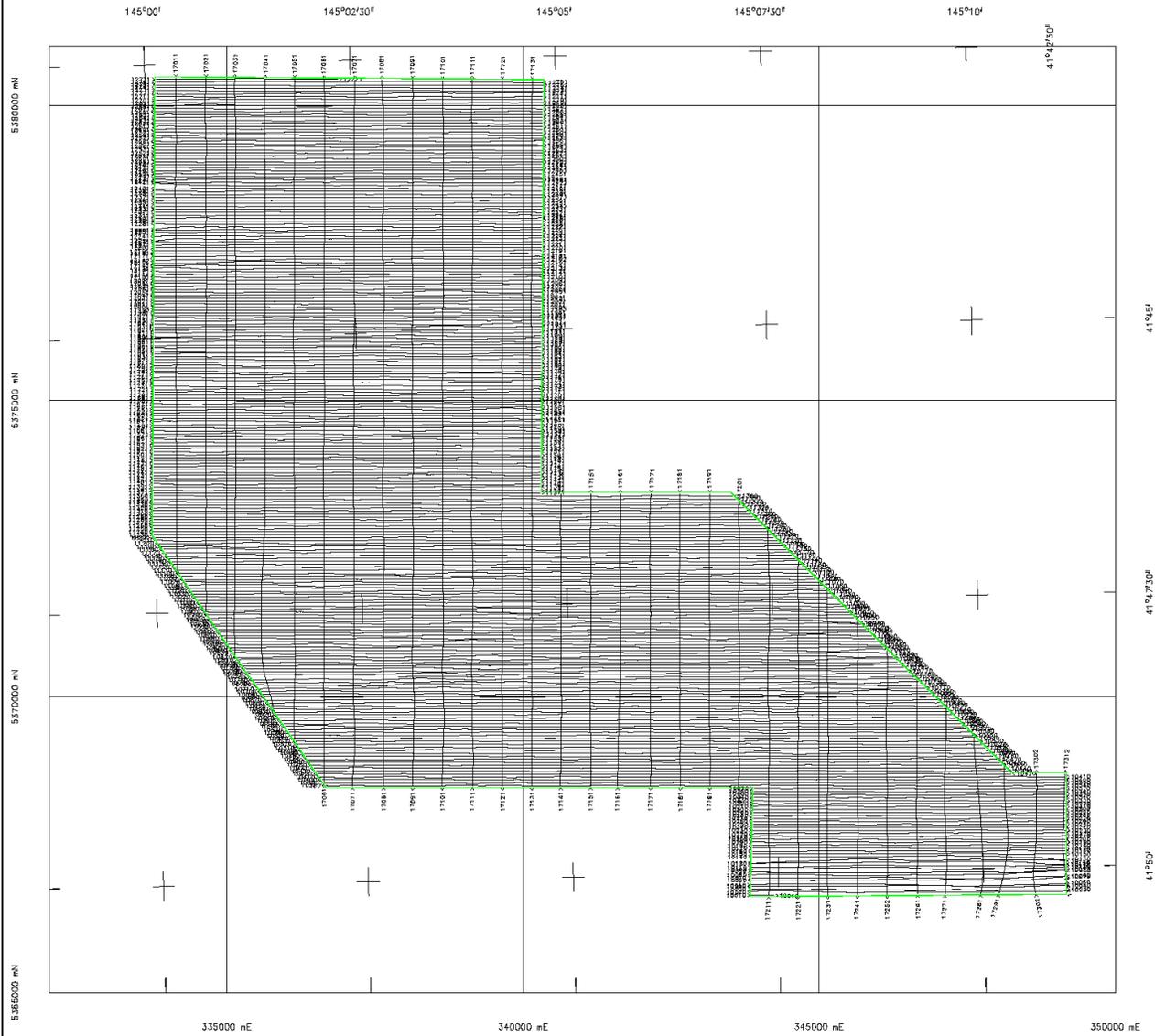
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HEEMSKIRK NW TASMANIA: Digital Elevation Model



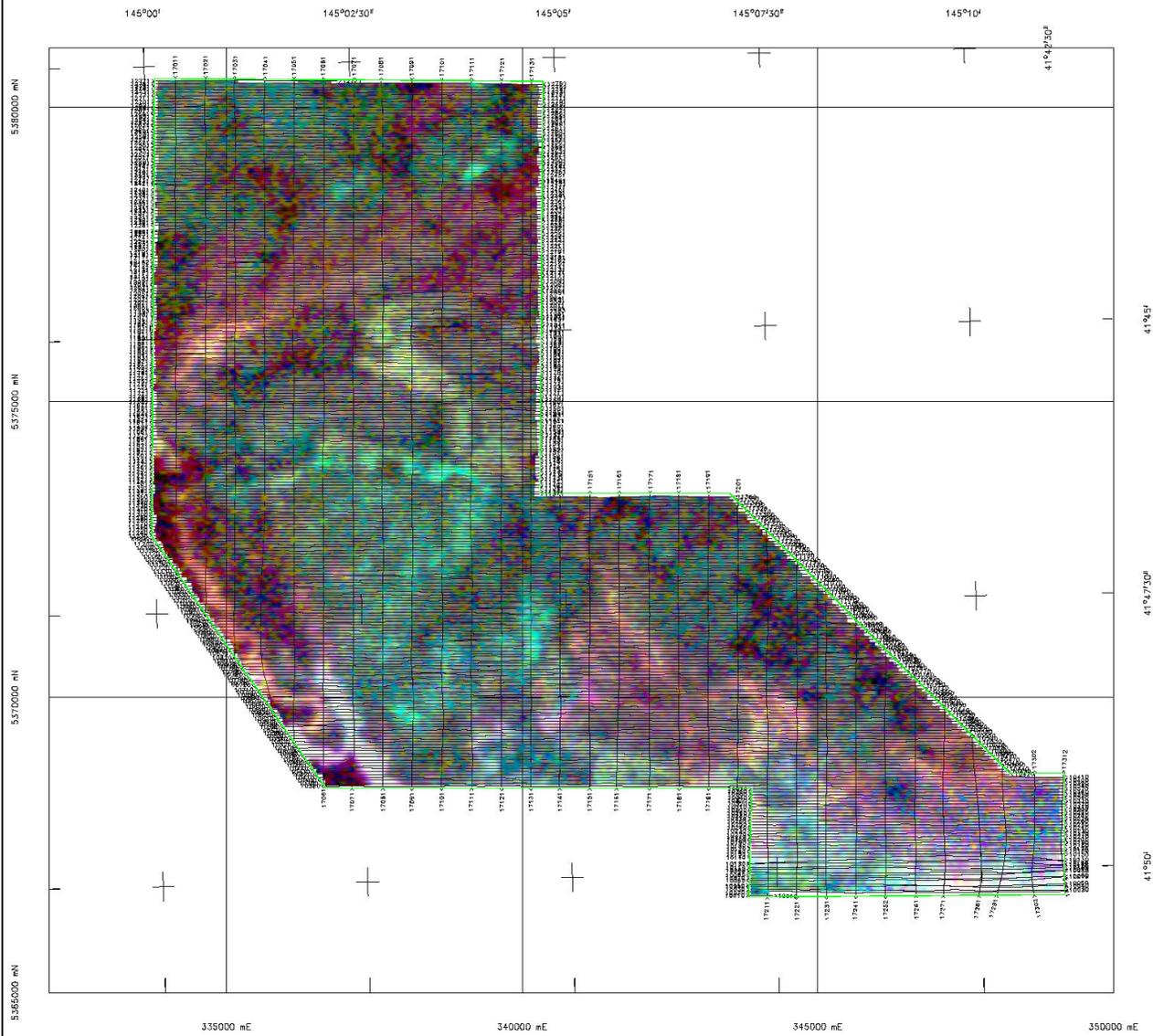
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HEEMSKIRK NW TASMANIA: Flight Path

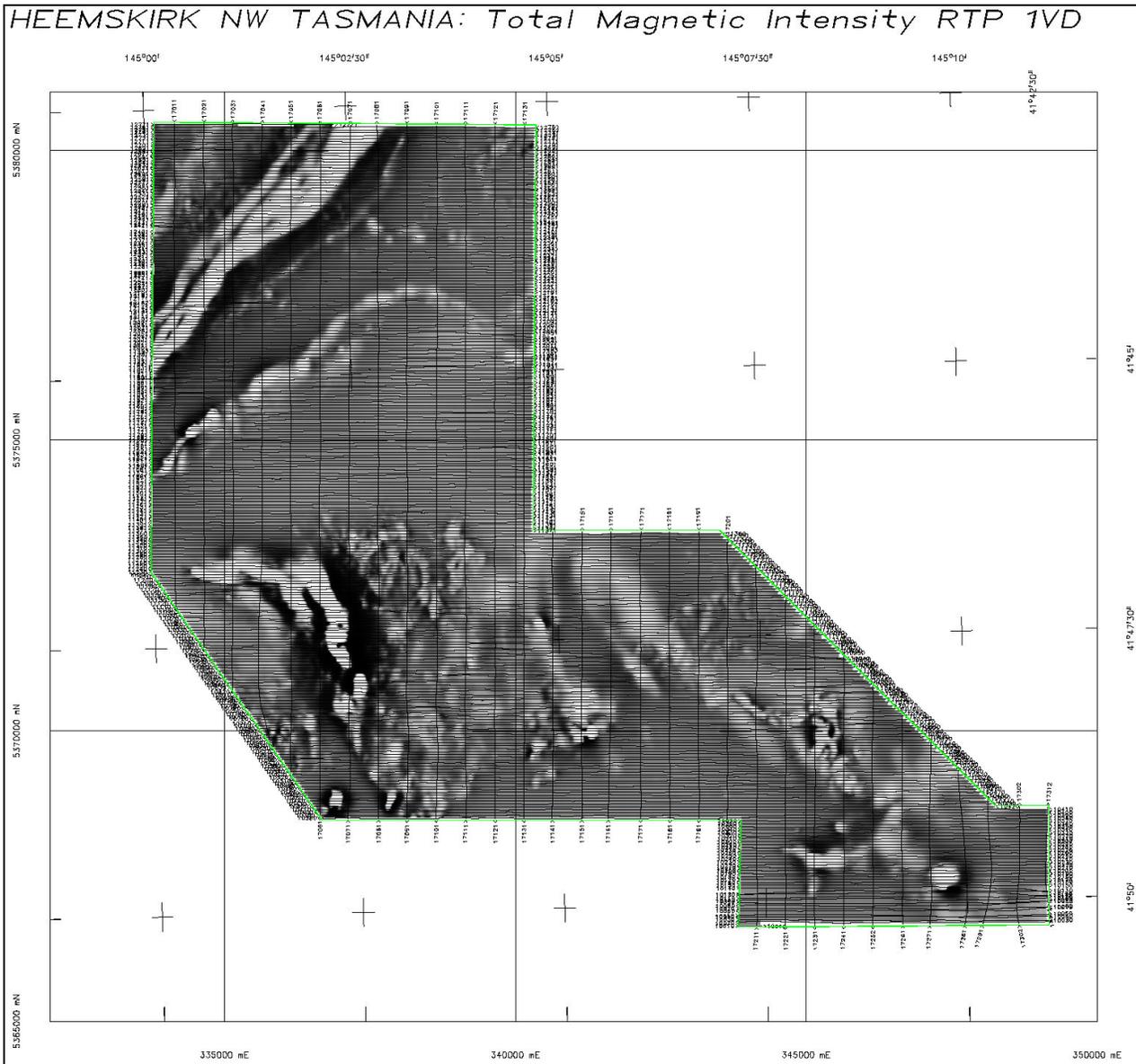


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HEEMSKIRK NW TASMANIA: Radiometric Ternary

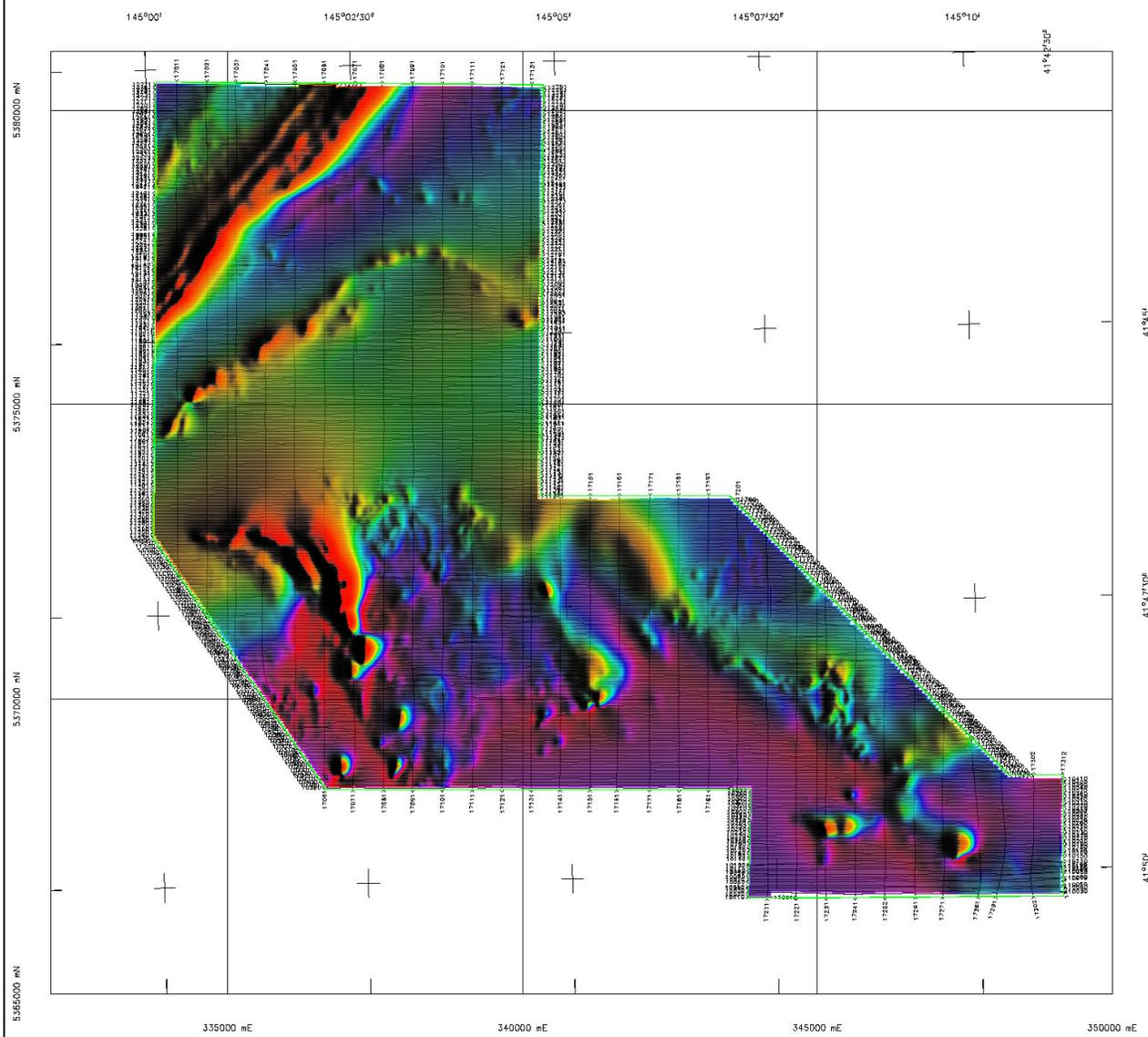


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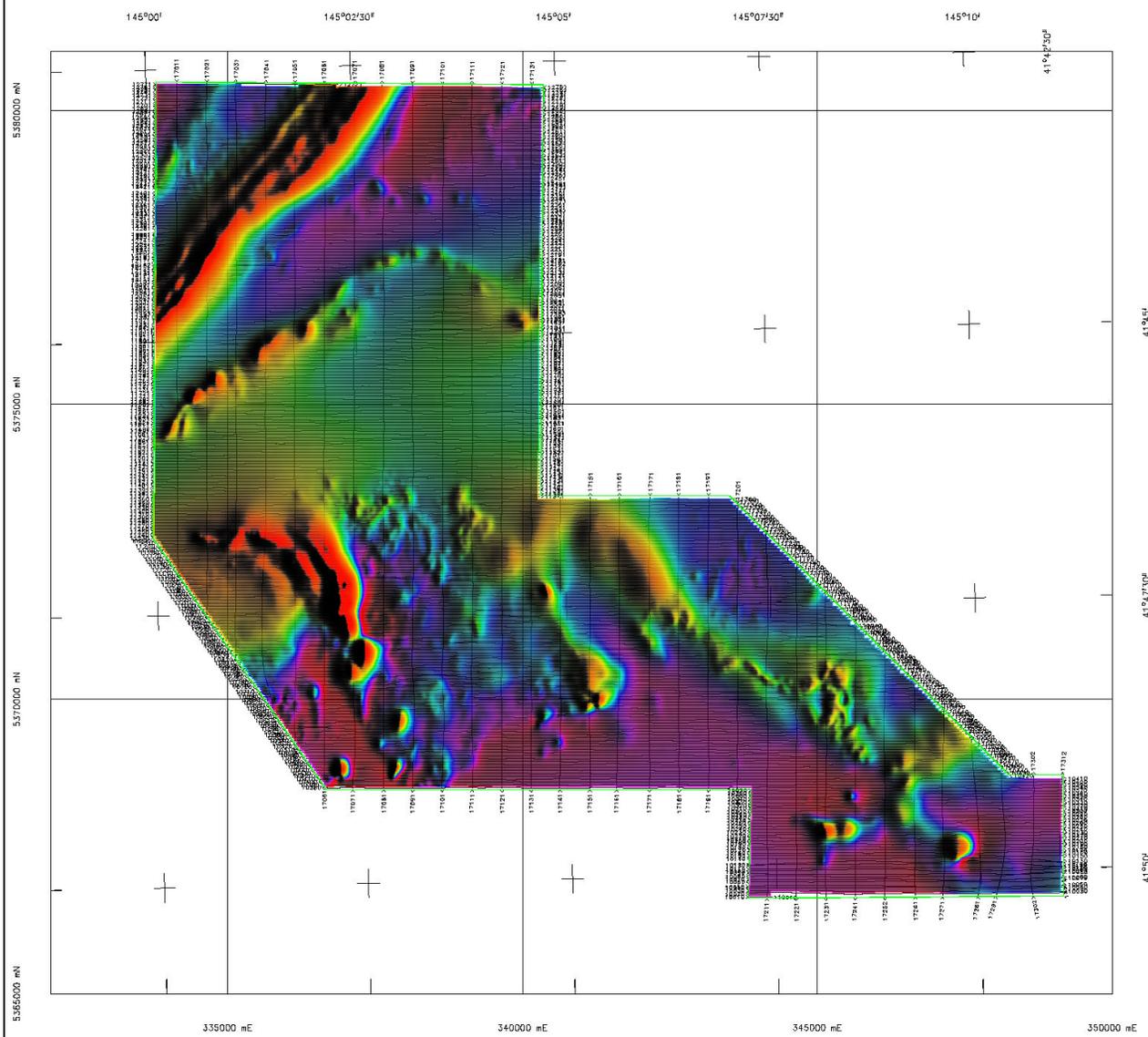
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HEEMSKIRK NW TASMANIA: Total Magnetic Intensity



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HEEMSKIRK NW TASMANIA: Total Magnetic Intensity RTP



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HEEMSKIRK NW TASMANIA: Total Count

