

Final Operations Report

on the

***Overseas Energy Holdings Limited
Gravity Survey***

SEL 05 - 2005

December 2010 and February 2011



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**Dynamic Satellite Surveys Pty Ltd has a Quality Management System,
externally certified to AS/NZS ISO 9001:2008 standards by
SAI Global Pty Ltd (Lic# QEC10046).**

This project was undertaken for Overseas Energy Holdings Limited.

The sole purpose of the job was to observe gravity surrounding three (3) well sites within the SEL 05-2005 tenement and traverse a line of gravity observations along Belle Vue Road, Barton Road, West Tamar Highway, Pipers Rivers Road, Lilydale Road, Meander Valley Highway and the Midland Highway. The use of the data for any other purpose is not authorised.

All data contained in this report and on the attached DVD is deemed to be final and overrides any previous data received from DSS, unless otherwise stated.

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1

INTRODUCTION

The following report describes the **SEL 05-2005 Gravity Survey**, completed between December 2010 and February 2011, performed by **Dynamic Satellite Surveys Pty Ltd** (DSS) whilst contracted to **Overseas Energy Holdings Limited** (OEHL).

Three observation grids were set-up around well locations Westwood, Weymouth Road and Bass Highway. The dimensions of each grid were a two-kilometre radius from the well location, splitting observations into a 250m by 250m grid.

In addition to the well grids surveyed, Dynamic Satellite Surveys were required to observe gravity readings every 450 metres between points of interest along Belle Vue Road, Barton Road, West Tamar Highway, Pipers Rivers Road, Lilydale Road, Meander Valley Highway and the Midland Highway.

The survey operations were completed between 6th of December 2010 and 11th of February 2011.



2

INSTRUMENTATION AND PERSONNEL

2.1 *Personnel and Logistics*

DSS personnel involved in the survey were as follows.

| | |
|-------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Mark Green | <ul style="list-style-type: none">- Bachelor of Geomatics (RMIT)- Project Manager- 5 years Seismic experience |
| Leigh Franks | <ul style="list-style-type: none">- Bachelor of Science - Topographic Science (University of Glasgow)- Surveyor/Gravity Operator- 21 years Seismic experience |
| Yuri Marinovich | <ul style="list-style-type: none">- Bachelor of Surveying (University of Otago)- Surveyor/Gravity Operator |
| Stewart Thompson | <ul style="list-style-type: none">- Bachelor of Surveying (University of Otago)- Surveyor/Gravity Operator |
| Tom Searl | <ul style="list-style-type: none">- Student Surveyor (USQ)- Surveyor/Gravity Operator |

Personnel and equipment logistics were supported by the DSS Yeppoon office.
Survey operations were based from Launceston and Devonport, Tasmania.

2.2 Equipment

Equipment provided by DSS and used on this project:

| | Description | Qty |
|-----------------------|------------------------------------------|----------|
| Vehicles | Isuzu D-max Ute (DSS Vehicle - 556 RAC) | 1 |
| | Nissan X-Trail (Hire) | 2 |
| | | |
| Communications | Apple iPhone | 2 |
| | | |
| GPS receivers | NovAtel GPS receivers with VHF telemetry | 3 |
| | | |
| Gravity Meter | LaCoste / Romberg Gravity Meter | 2 |
| | | |
| Computers | Toshiba Laptop - Windows 7 | 2 |
| | Viliv Field - Windows XP | 2 |
| | | |
| Software | NAV05 field software - DSS | Ver 4.60 |
| | NavMini - DSS | Ver 2.30 |
| | MapInfo Professional | Ver 8.5 |
| | GrafNet | Ver 8.20 |
| | GravMaster | Ver 1.43 |
| | | |
| Printer | Canon iX4000 | 1 |
| | | |
| Miscellaneous | Digital Camera | 1 |
| | GPS batteries and Chargers | 3 |
| | Field and Office Consumables | 1 |
| | | |



3

SURVEY REFERENCE SYSTEMS

3.1 Geodetic Datum

This project was based on the Geocentric Datum of Australia 1994 (GDA94), which is based on the Geodetic Reference System 1980 (GRS80) model defined by the following parameters:

| | |
|--------------------------------|----------------------------------------------------|
| <i>Datum:</i> | GDA94 (Geocentric Datum of Australia 1994) |
| <i>Spheroid:</i> | GRS80 |
| <i>Reference Frame:</i> | ITRF92 (International Terrestrial Reference Frame) |
| <i>Semi-Major Axis Length:</i> | 6 378 137.0 |
| <i>Inverse Flattening:</i> | 298.257222101 |
| <i>The Unit of Measure:</i> | International Metre |

3.2 Map Projection

Final rectangular coordinates were based on the Map Grid of Australia 1994 (MGA94). Parameters for this projection are as follows:

| | |
|-------------------------------|---------------------------------------------|
| <i>Projections:</i> | Universal Transverse Mercator (MGA Zone 55) |
| <i>Latitude of Origin:</i> | 0° |
| <i>Central Meridian (CM):</i> | 147° E |
| <i>Scale Factor at CM:</i> | 0.9996 |
| <i>False Easting:</i> | 500 000 |
| <i>False Northing:</i> | 10 000 000 |
| <i>The Unit of Measure:</i> | International Metre |

3.3 Height Datum

All elevations obtained relative to GDA94 have been reduced to the Australian Height Datum (AHD) using the AUSGeoid98 Geoid - Spheroid separation model to determine the geoid-ellipsoid separation (N) for the particular area.

GPS observations are made on the GDA94 datum. The height associated with this datum is an ellipsoidal height (h). The Australian Height Datum (AHD), the height datum associated with MGA94, is an orthometric height, which is measured as the height above mean sea level, or the geoid (H).

The function that defines the relationship between the ellipsoid and orthometric heights is:

$$H = h - N$$

Or

$$\text{AHD} = \text{GDA94} - (\text{Geoid / Ellipsoid Separation})$$

The value for the geoid/spheroid separation is interpolated from a national model called AUSGeoid98.

AUSGeoid98 is the third in a series of national geoid models produced for Australia by the Australian Surveying and Land Information Group (AUSLIG). The geoid-ellipsoid data is prepared for the Australian region from:

- EGM96 Global Geopotential Model;
- 1996 Australian Gravity DataBase, from the Australian Geological Survey Organisation (AGSO);
- AUSLIG / AGSO GEODATA nine-second digital elevation model;
- Satellite altimeter - derived free air gravity anomalies offshore;
- Theories, techniques and software developed by Associate Professor Will Featherstone, Curtin University of Technology¹.

AUSGeoid98 N values were interpolated using the GrafNet Version 8.20 software, distributed by Waypoint Consulting Inc.

¹ Johnston, G.M., Featherstone, W.E. (1998) AUSGeoid98: A New Gravimetric Model for Australia



4

CONTROL

4.1 Survey Control

Survey control was established by adopting state survey marks as follows:

| Grid / Highway Line | Station | Easting | Northing | AHD |
|----------------------|----------|------------|-------------|---------|
| Westwood | SPM8249 | 503304.778 | 5402287.987 | 153.689 |
| Weymouth Road | SPM9763 | 505892.063 | 5449781.332 | 94.604 |
| Bass Highway | SPM9763 | 505892.063 | 5449781.332 | 94.604 |
| Highway Line 1 and 6 | SPM11162 | 528896.368 | 5377208.424 | 197.414 |
| Highway Line 2 | SPM10032 | 504846.603 | 5404004.554 | 142.933 |
| Highway Line 3 | SPM9763 | 505892.063 | 5449781.332 | 94.604 |
| | SPM10642 | 511777.270 | 5420344.300 | 103.636 |
| Highway Line 4 | SPM9835 | 502930.644 | 5421395.815 | 23.798 |
| | SPM9844 | 488686.944 | 5435105.166 | 61.848 |
| Highway Line 5 | SPM9226 | 524091.943 | 5383640.000 | 183.190 |

All station information is listed in **Appendix A - Survey and Gravity Control**.

4.2 Gravity Control

Known **AFGN** gravity base stations with **AAGD07** values were used as the basis for control. Their base values were adopted as Datum origins for each prospect.

Gravity Control Stations used were:

| Grid / Highway Lines | Station Description | Gravity Station |
|--------------------------------------------------|---------------------------------|-----------------|
| Westwood, Weymouth Road and all Highway Lines | Airport Terminal, Launceston | 1968500271 |
| Bass Highway | Airport Terminal, Devonport | 1985911141 |

The total number of gravity points gathered throughout the entire gravity program resulted in **506** readings, with **68** check readings within the well sites and an additional **331** points and **31** checks along the highway lines. Additional base stations were installed at the Penny Royal Inn in Launceston and at the Devonport Oval in Devonport. See descriptions of the bases in **Appendix E - Gravity Control Diagrams**.



Mark observing gravity at Launceston Airport for establishing control



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MONUMENTATION

Monumentation on the OEHL job was minimal. In cases where gravity stations needed to be revisited, such as check shots, these were marked using spray paint at the location of the observation.

Where gravity base stations were installed, a Tag was stamped with DSS job number, client, contractor, type and identity code and glued to the pavement.



Base ID tag at Devonport Oval



6

METHOD OF SURVEY

6.1 *Landholder Liaison*

As there had only been contact between OEHL and the property owners of the well sites, it was necessary for Mark Green to conduct additional landholder liaison. For all three wells the initial approach was to make contact with the landholders on the proposed well sites. Information about surrounding neighbours and the best method to contact them was determined from these initial discussions.

A memorandum was formulated and a letter-drop for all affected properties explained the purpose of the gravity survey. Once landholders had been given a day to read through this information, Mark visited each one to find out whether entry approval was granted. There were only a few instances where access was not granted but, in these cases, it was possible to offset the required gravity points into neighbouring properties.

There were cases on Westwood and Weymouth Roads where state officials needed to be made aware of DSS' operations as the grids surveyed passed over State Forest and Crown Land.

Shane Bartel was useful in providing initial information of landholders on the proposed well sites and for providing a cadastral map of the areas. Shane also undertook organising land access along all highways and organising the work program on the behalf of OEHL.

6.2 GPS Surveying

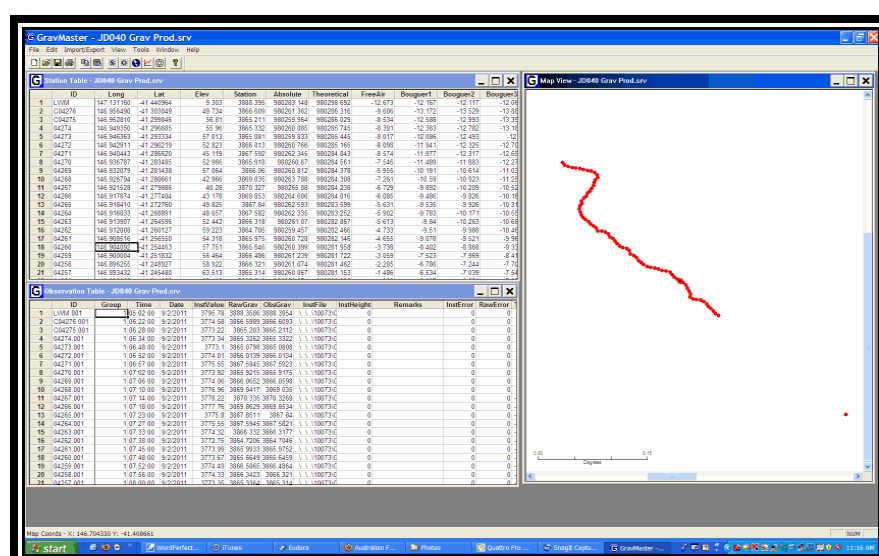
There are three modes of use in GPS surveying; static, kinematic and real-time kinematic. The survey was completed using DSS' OEMV-3 real-time kinematic (RTK) surveying technique. This method enabled both position and elevation coordinates to be acquired in real-time and on the appropriate datum.

NovAtel real-time kinematic methods can achieve accuracies of better than +/-0.05m in position and elevation, depending on base line length. The expected precision for locating pegged positions is better than 0.3 metres and is generally better than 0.2 metres.

Initialisation of the OEMV-3 rover GPS usually takes as little as one minute, although this is greatly dependant on satellite geometry, availability and base line length.

6.3 Gravity Surveying

Gravity surveying consisted of using a LaCoste and Romberg Model G gravity meter to observe gravity on a 250 by 250-metre grid within a two-kilometre radius for wells at Westwood, Weymouth Road and Bass Highway. Ten percent (10%) of field observations were checked every day and terrain corrections noted. All processing of gravity data was completed using GravMaster software.



GravMaster Software- you can see all tables related to observations, stations and a map of work completed on the day.

Establishing a base station is the first order of business on a gravity survey. As there were no easily accessible base stations within Launceston city itself, the survey crew observed control from the Launceston Airport. Control loops work as follows: if the known gravity station is known as 'A' and your new base station as 'B', the reading sequence is 'A, B, A, B, A'. It is ideal to keep drive-times down to an hour between stations to ensure that there are only small drift corrections. Completing the second loop is done as a check to ensure the quality of the observations.

To begin a gravity observation session, the observer takes an initial reading at the base station and then uses this same station to close to at the end of the day. Each base station has a known absolute gravity value which is used when processing the new data. Observers aim to record all points on the design set-out given but in some cases have to move points due to conditions of entry given by landholders. In many cases, land holders had Poppy fields growing on their land and under no circumstances were the observers to enter these areas.

It is best practice that 10% of gravity observations are checked. Both observations from previous days (external) and from the current day (internal) are observed as part of each gravity observation loop.

Terrain corrections for the job were broken up into five zones: A (0m-1m), B (1m-15m), C (15m-50m), D (50m-100m), and E (100m-200m). If there was a significant change in elevation from the station being observed, the first option would be to move the station up to twenty-five metres from the design point, to avoid the terrain change. If this was not an option, it would be up to the observer to make an assessment of the change in elevation and note this in the field notes. Terrain corrections beyond 200 metres were computed using a 30-second DEM file, within the GravMaster software.



Tom and Stu taking an observations on the Westwood Grid.

6.4 Survey Processing and Quality Control

All survey data was immediately recorded internally on the Viliv Computer and subsequently downloaded to the office computer each evening.

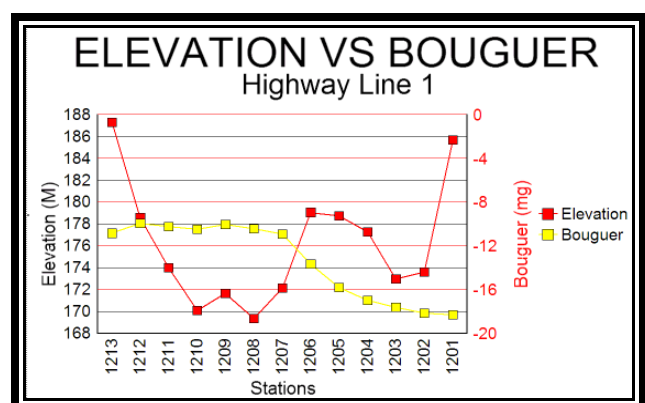
Quality of the satellite data was monitored by careful examination of the various on-screen quality control statistics produced by the NAV05 software. These checks on data integrity are in the form of standard deviation (or sigma) values for Easting, Northing and Height, and are generally better than 0.05 metres.

Any recording of positions where the standard deviation values exceeded 0.1 metres was highlighted to the surveyor at the time of recording. Following this, it was possible to re-initialise the GPS in order to obtain a more accurate solution. Any recorded position falling outside the required tolerances were flagged for further investigation and re-recording if necessary.

Numerous checks on pre-recorded marks were observed during each days survey in order to confirm the integrity of the GPS base receiver and the placed markers.

6.5 Gravity Processing and Quality Control

All observations, whether control or line observations, were processed using the GravMaster software. The software is capable of computing drift and tidal corrections, which are then applied to station observations. Station observations were processed using observation information and GPS data recorded on the station to compute free air and terrain correction to give values for absolute gravity and Bouguer values. In addition to this software, a spreadsheet was created to ensure specifications were met to Geoscience Australia's best practice standards. The spreadsheet was also used to create graphs as each station interval for Corrected Bouguer Anomalies vs Elevation to ensure there are no incorrect values being entered as gravity inputs.



Highway line 1 Elevation Vs Bouguer Graph

In the final spreadsheet the following data are shown under separate tabs:

Raw Data

All data compiled from Gravmaster related to all lines

Gravity Checks

All checks completed for the entire project with relevant differences computed

Sorted Data (area)

Gravmaster data for each area

Final Data (area)

Geoscience Australia Format Corrected Data for each area

Geoscience Australia Corrections applied to the Gravity Data were:

Tidal corrections : Computed in GravMaster Software
 Instrument corrections : Drift correction applied in GravMaster Software
 Terrain correction : Estimated in field and computed in GravMaster GTOP030
 Latitude corrections : Computed using GravMaster Software and DSS Software
 Bouguer corrections : Computed using GravMaster Software and DSS Software
 Free air corrections : Computed using GravMaster Software and DSS Software

To reduce the data, the following formulas were used:

$$NormalGravity(Gn) \mu ms^{-2} = 9780326.7715 * \frac{(1 + 0.001931851353 * \sin^2(\theta))}{\sqrt{1 - 0.006694380229 * \sin^2(\theta)}}$$

$$FreeAirCorrection(FAC) = -(3.08768 - 0.004398) * \sin^2 \phi * h + 7.2125 * 10^{-7} * h^2$$

$$BouguerCorrection = (0.4191 * h * 2.67)$$

Where **h** is the ellipsoidal height on each station.

Thematic maps were compiled to illustrate the grids and are shown in **Appendix C - Thematic Maps**.



7

DATA PRESENTATION

All files were checked and finalised before the survey crew demobilised from the prospect.

All final survey data was in UTM grid coordinate format on the MGA94 projection on the GRS80 reference spheroid. All elevations were on the Australian Height Datum (AHD71).

Final data produced were:

- | | |
|--------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Gravity Data | <ul style="list-style-type: none">- raw Gravity data for each area- final ASCII data for each area- base station diagrams- check observations for each area- thematic elevation vs Corrected Bouguer maps |
| Photographs | <ul style="list-style-type: none">- photographs of gravity stations |
| Survey and Gravity Data | <ul style="list-style-type: none">- csv files of all point data (StnID, East, North, Elev) and reduced gravity observations |

All files are backed up on digital disks in the Yeppoon office for future reference. No hard copy data was provided.



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SAFETY

DSS personnel are aware of safety conditions concerning all exploration seismic surveys. The DSS “**Quality Policy Statement**” and “**Health, Safety and Environment Policy**” were adhered to at all times.

Each vehicle was fitted with an iPhone on Telstra Next G, UHF radio, shovel, first-aid kit, dry powder and water fire extinguishers, vehicle recovery equipment, rotating beacon and weekly vehicle maintenance check lists.

Staying in contact with one another whilst on the line, as well as completing journey management, ensured for a trouble-free survey.

DSS personnel spoke with Tim Franklin prior to commencing work on the Westwood Grid to ensure that there were no outstanding safety issues or other work-related issues that needed to be addressed.

The survey crew made sure that regular breaks were taken whilst working in the extreme heat. When there was excessive rain, the survey crew stopped work to ensure the gravity meter would not be damaged in anyway.

Extreme caution was taken when surveying on the country roads. Whilst working on highway lines, the survey crew ensured that no work was undertaken within six metres of traffic, that flashing beacons and hazard lights were turned on, and that all workers were wearing hi-visibility clothing. The driver of the vehicle acted as a spotter for traffic.



9

OPERATIONAL ASPECTS

On the 6th of December 2010 Mark Green and Stewart Thompson arrived in Launceston to collect vehicles and speak briefly with Tim Franklin. Tim gave the survey crew a list of phone numbers for the landholders around the purposed well sites at Westwood, Weymouth Road and Bass Highway. Tim gave a quick overview of work that had happened previously with drilling but time was cut short as Tim had to leave the country the next day.

The survey crew met with Tom Searl the following morning who had arrived with the DSS vehicle from the mainland via the Spirit of Tasmania vessel. On Tom's arrival, the survey crew set-up gear for both the office and the field survey.

The crew then set out to establish control close to the accommodation which involved two gravity loops from Launceston Airport and back again. From here, the crew headed to the Westwood Grid as Tim Franklin had identified that only a few landholders were in this area.

Mark spent the initial days ensuring that survey and gravity crews were working safely, ensuring that they were getting appropriate checks, that proper care of the gravity meter was taken, and that they were working as efficiently as possible. Mark then used his time to liaise with the remaining landholders to obtain entry approvals. In most cases, landholders welcomed the surveyors entering their properties as DSS used a low impact survey technique of backpacking between observations.

Once the surveyors returned from the field they would close their gravity loop to control stations (always within twelve hours). The crew would then ensure all gear had been put back on charge and the vehicles were ready for the next day's work (filled petrol, water, tape, paint, etc.).

After the crew downloaded data from the Viliv computer the data was processed to ensure that all observations were accurate. This would involve checking Tide and Drift corrections, then comparing the check shot's Bouguer Values and Absolute Values of Gravity. Terrain corrections would then be compensated before converting data into a readable spreadsheet displaying raw data, sorted data, check table and a final data spreadsheet (Geoscience Australia standard).

Data was retrieved from the MRT (Mineral Resources Tasmania) website to illustrate data, which had already been observed within the SEL 05-2005 lease boundary. Topographic maps illustrating changes in Bouguer values of 2.67 were given to the client to help them make decisions on which lines would be better to survey.

Topographic maps were also created from data obtained by DSS on each grid showing the variation between elevation and corrected Bouguer values. On highway lines, the same variation was shown using a graph as lines are in two dimensional format and not the three-dimensional grid format.

Once all final field operations had been processed and checked, the crew packed up all gear and headed back to the mainland on the 11th of February.



10

CONCLUSIONS AND RECOMMENDATIONS

DSS had over-estimated how much work was going to be completed within the time frame given. On arrival at the sites, it soon became apparent that we would only be able to achieve a maximum total of 20 - 30 observations per day. This was due to the terrain, i.e. crossing numerous fences between points meant that surveyors would have to backpack all observations.

The Westwood grid had numerous hills, heavily timbered areas filled with prickly weeds, and a flooded river to work around. The Weymouth Road site had a combination of open paddocks and state forests. The vineyards proved to be slow going as the surveyors had to make sure that they were walking up the right row to the point as there was no cutting between lines. The Bass Highway line was predominantly in open paddocks but again, had sections that went through townships. In these cases, the surveyors offset points to nearby roads.

Work was interrupted on two occasions for reasons outside of Dynamic Satellite Surveys' control. In the first instance, Overseas Energy Holdings Limited failed to obtain a work program with respect to the gravity survey. It was not until a landholder made an enquiry to Mineral Resources Tasmania that this was realised, thus the crew were put on standby for a number of days. The second instance arose when commencing work on the highway lines as local government were taking considerable time to grant access for the gravity survey. Again, the survey crew went on standby. Un-seasonal rain also resulted in numerous days where no survey was able to take place.

When working on the highway lines, the desired spacing was 450 meters but this was not always possible. Two major reasons for this included terrain corrections; when pulling up on the side of the road there would be escarpments that would alter the gravity observations, and there were sections with blind corners where the surveyors deemed it too unsafe to work. In both cases, the surveyors moved stations no more than 100m from the original desired location.

DSS used the resources available to complete the land liaison task quickly and effectively ensuring that locals were kept "in the loop" with the operations. Where special requests were made, the surveyors adhered to them the best they could. These requests included working around poppy fields on both Westwood and Bass Highway sites. The surveyors offset points to the nearest location to the design without entering the field. Mark made phone calls to landowners, when they were required, prior to entry.

The surveyors were, however, able to pick up survey production considerably once working on highway lines. Overall, Dynamic Satellite Surveys completed 506 well observations for an average of 20.32 observations per day, and 331 highway observations for an average of 64.90 observations per day.

It would be recommended in the future to have land access, work programs, and local and state government bodies aware of operations prior to sending out crews to ensure an efficient survey is undertaken, minimising the number of standby days.

Signed,

Dynamic Satellite Surveys Pty Ltd

Mark Green

Senior Surveyor

Checked and edited by,

Dynamic Satellite Surveys Pty Ltd

Denis Williams

Survey Manager



11

APPENDICES

Survey and Gravity Control

Coordinates are Map Grid of Australia (MGA94) Zone 55**Elevations are AHD71 using AUSGeoid98 N Value Model****Grid Control**

| Grid / Highway Line | Station | Easting | Northing | AHD |
|----------------------------|----------------|----------------|-----------------|------------|
| Westwood | SPM8249 | 503304.778 | 5402287.987 | 153.689 |
| Weymouth Road | SPM9763 | 505892.063 | 5449781.332 | 94.604 |
| Bass Highway | SPM9763 | 505892.063 | 5449781.332 | 94.604 |
| Highway Line 1 and 6 | SPM11162 | 528896.368 | 5377208.424 | 197.414 |
| Highway Line 2 | SPM10032 | 504846.603 | 5404004.554 | 142.933 |
| Highway Line 3 | SPM9763 | 505892.063 | 5449781.332 | 94.604 |
| | SPM10642 | 511777.270 | 5420344.300 | 103.636 |
| Highway Line 4 | SPM9835 | 502930.644 | 5421395.815 | 23.798 |
| | SPM9844 | 488686.944 | 5435105.166 | 61.848 |
| Highway Line 5 | SPM9226 | 524091.943 | 5383640.000 | 183.190 |

GPS Checks

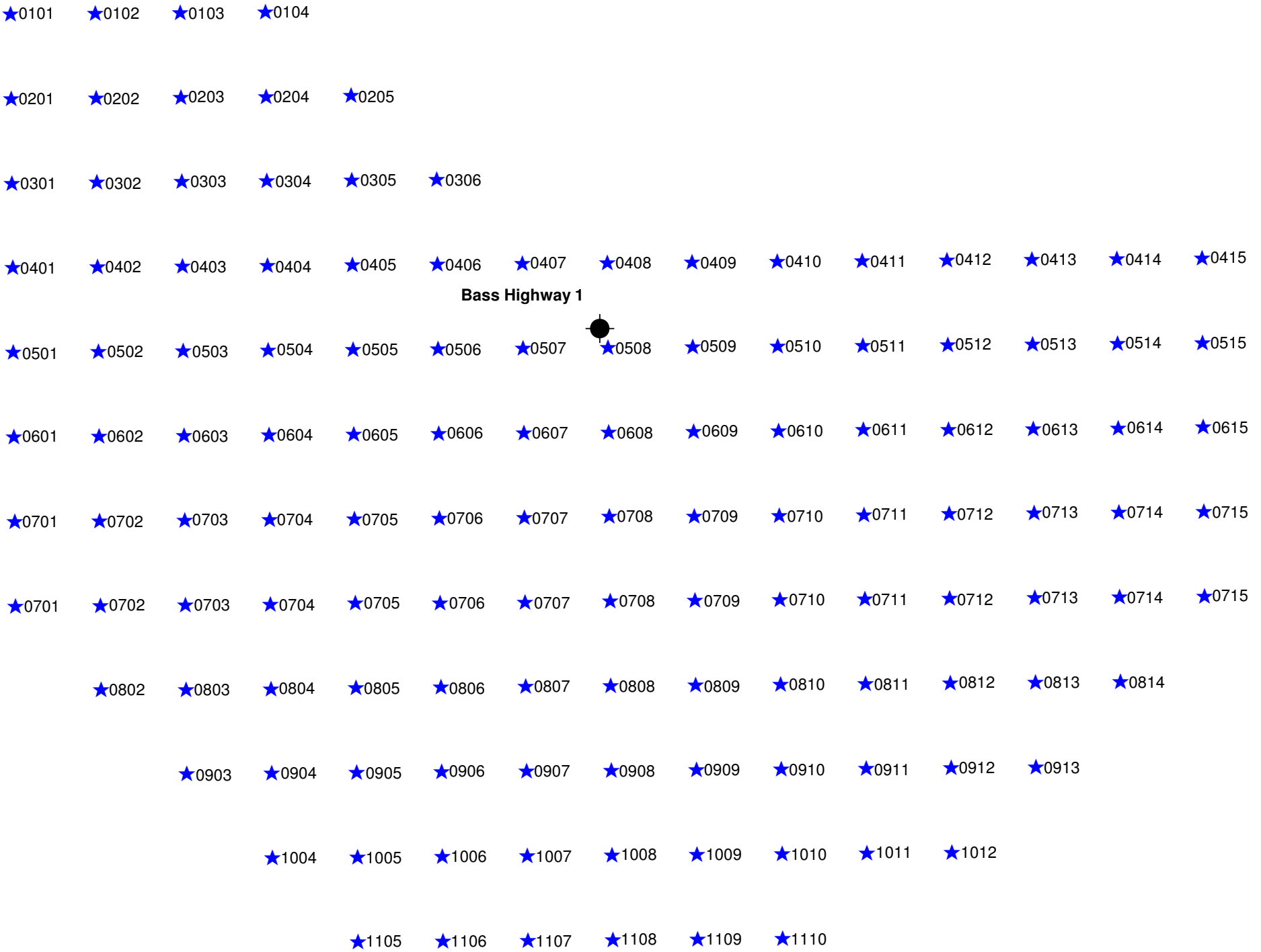
| Name | Easting | Northing | Height | Comments |
|-------------|----------------|-----------------|---------------|-------------------|
| SPM8240 | 502459.105 | 5402933.853 | 142.368 | GIVEN |
| | 502459.058 | 5402933.955 | 142.312 | RTK Survey |
| | -0.047 | 0.102 | -0.056 | Difference |
| SPM9766 | 506337.373 | 5450179.230 | 81.695 | GIVEN |
| | 506337.319 | 5450179.233 | 81.644 | RTK Survey |
| | -0.054 | 0.003 | -0.051 | Difference |
| SPM10485 | 437521.985 | 5442885.119 | 12.082 | GIVEN |
| | 437521.782 | 5442885.169 | 12.027 | RTK Survey |
| | -0.203 | 0.050 | -0.055 | Difference |
| SPM11163 | 529212.535 | 5376817.666 | 198.145 | GIVEN |
| | 529215.405 | 5376819.244 | 197.855 | RTK Survey |

| Name | Easting | Northing | Height | Comments |
|-------------|----------------|-----------------|---------------|-------------------|
| | 2.870 | 1.578 | -0.290 | Difference |
| SPM6267 | 530942.100 | 5374747.742 | 189.508 | GIVEN |
| | 530942.868 | 5374748.486 | 189.348 | RTK Survey |
| | 0.768 | 0.744 | -0.160 | Difference |
| SPM762 | 533700.699 | 5371707.503 | 207.287 | GIVEN |
| | 533700.497 | 5371706.668 | 207.428 | RTK Survey |
| | -0.202 | -0.835 | 0.141 | Difference |
| SPM10031 | 505529.290 | 5404441.058 | 151.672 | GIVEN |
| | 505529.423 | 5404441.311 | 151.653 | RTK Survey |
| | 0.133 | 0.253 | -0.019 | Difference |
| SPM10028 | 505908.114 | 5405421.128 | 144.420 | GIVEN |
| | 505908.106 | 5405421.092 | 144.324 | RTK Survey |
| | -0.008 | -0.036 | -0.096 | Difference |
| SPM9766 | 506337.373 | 5450179.230 | 81.695 | GIVEN |
| | 506337.201 | 5450179.971 | 81.503 | RTK Survey |
| | -0.172 | 0.741 | -0.192 | Difference |
| SPM10028 | 511702.942 | 5420160.277 | 105.849 | GIVEN |
| | 511702.814 | 5420160.350 | 105.842 | RTK Survey |
| | -0.128 | 0.073 | -0.007 | Difference |
| SPM11021 | 505551.897 | 5418429.264 | 7.100 | GIVEN |
| | 505551.857 | 5418429.391 | 6.966 | RTK Survey |
| | -0.040 | 0.127 | -0.134 | Difference |

Gravity Bases Used

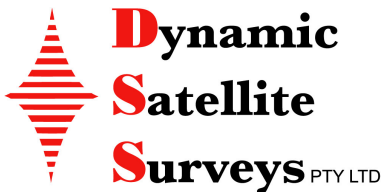
| Station | Number | Adopted Value | Units | Datum |
|-----------------------|---------------|----------------------|--------------|--------------|
| Launceston Airport | 1968500271 | 980261.852 | mGals | AAGD07 |
| Devonport Airport | 1985911141 | 980270.842 | mGals | AAGD07 |

Project Maps



Legend

- Well Site
- Gravity Observations



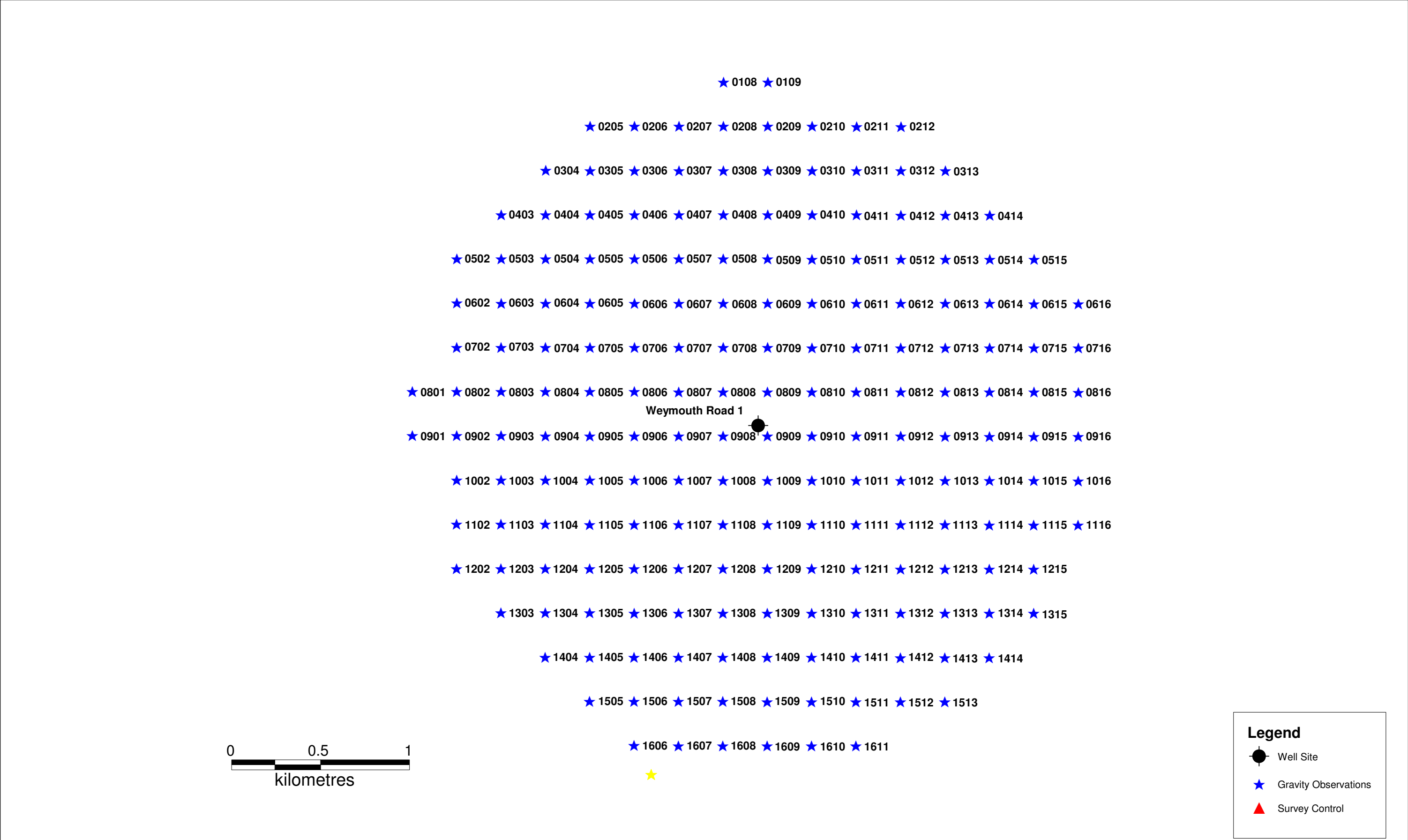
The purpose of this map is to represent the surveyed digital data in a pictorial manner only. The accuracy of the underlying topographic image in no way relates to the accuracy of the surveyed digital data. Features on the topographic map have not necessarily been surveyed by DSS. Any use of this map for reasons other than the purpose for which it was created is not authorised.

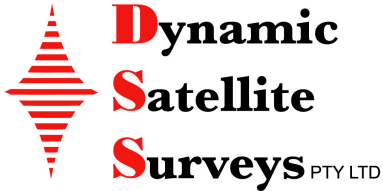
Dynamic Satellite Surveys : Phone 1800 060 407

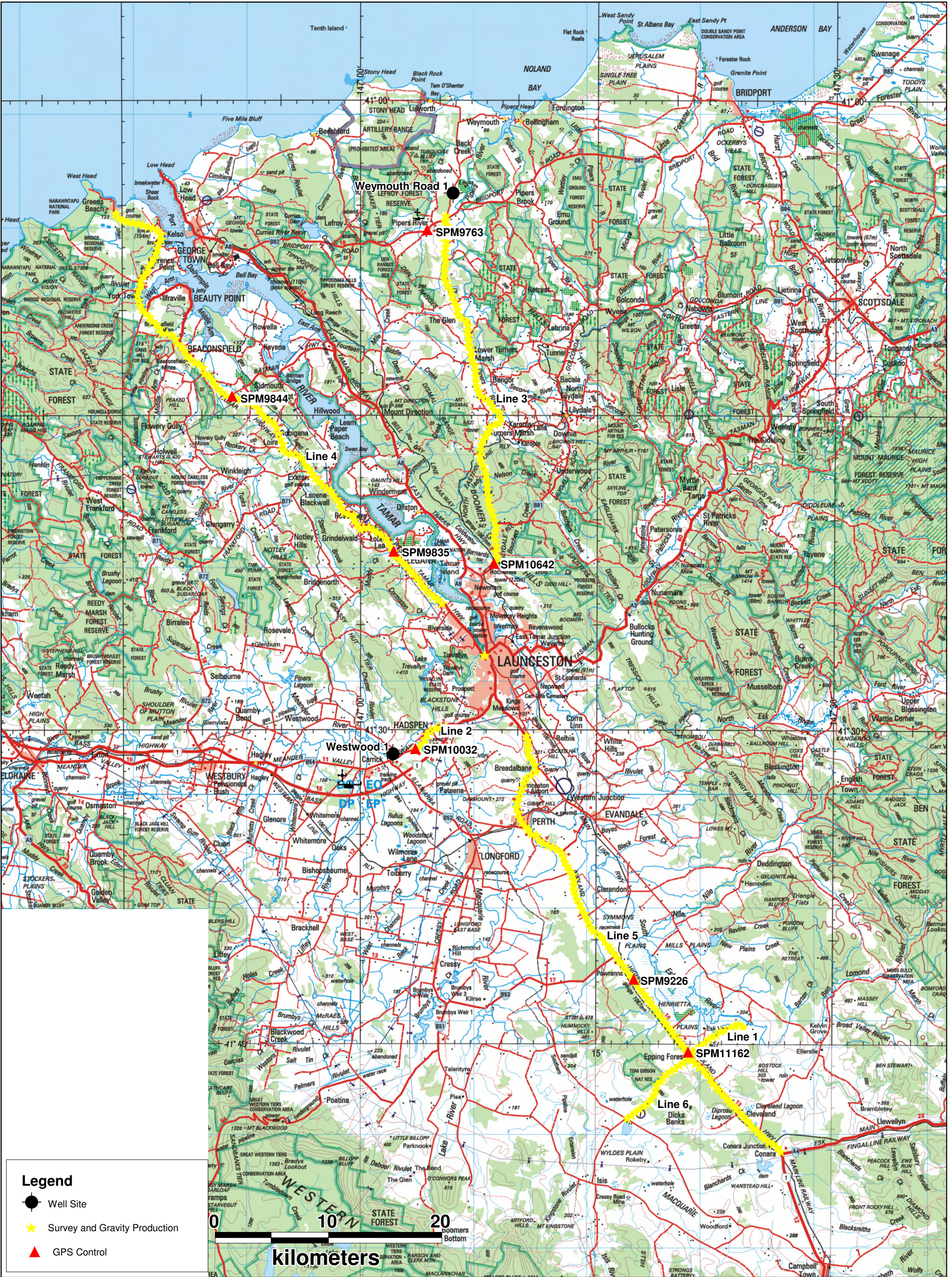
Overseas Energy Holdings Limited

Gravity Survey - Bass Highway #1

| | |
|--------|-----------------|
| Scale | 1:15,000 (A3) |
| Drawn | D Williams |
| File | Bass Highway #1 |
| Job #: | 10073 |
| Date | 02-03-2011 |

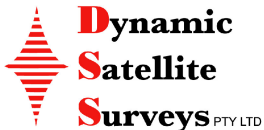


| | | | | | |
|-------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------|--|--------|------------------|
|  | <p>The purpose of this map is to represent the surveyed digital data in a pictorial manner only. The accuracy of the underlying topographic image in no way relates to the accuracy of the surveyed digital data. Features on the topographic map have not necessarily been surveyed by DSS. Any use of this map for reasons other than the purpose for which it was created is not authorised.</p> <p>Dynamic Satellite Surveys : Phone 1800 060 407</p> | Overseas Energy Holdings Limited | | Scale | 1:20,000 (A3) |
| | | | | Drawn | D Williams |
| | | Gravity Survey - Weymouth Road #1 | | File | Weymouth Road #1 |
| | | | | Job #: | 10073 |
| | | | | Date | 02-03-2011 |



Legend

- Well Site
- Survey and Gravity Production
- GPS Control



The purpose of this map is to represent the surveyed digital data in a pictorial manner only. The accuracy of the underlying topographic image in no way relates to the accuracy of the surveyed digital data. Features on the topographic map have not necessarily been surveyed by DSS. Any use of this map for reasons other than the purpose for which it was created is not authorised.

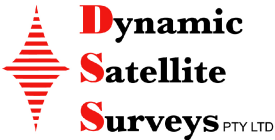
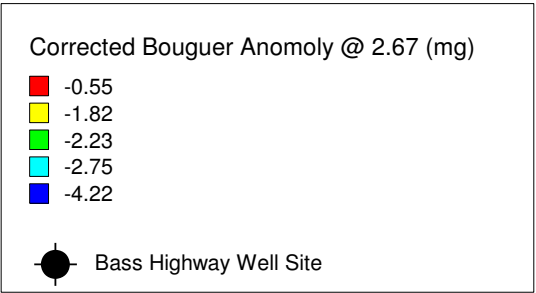
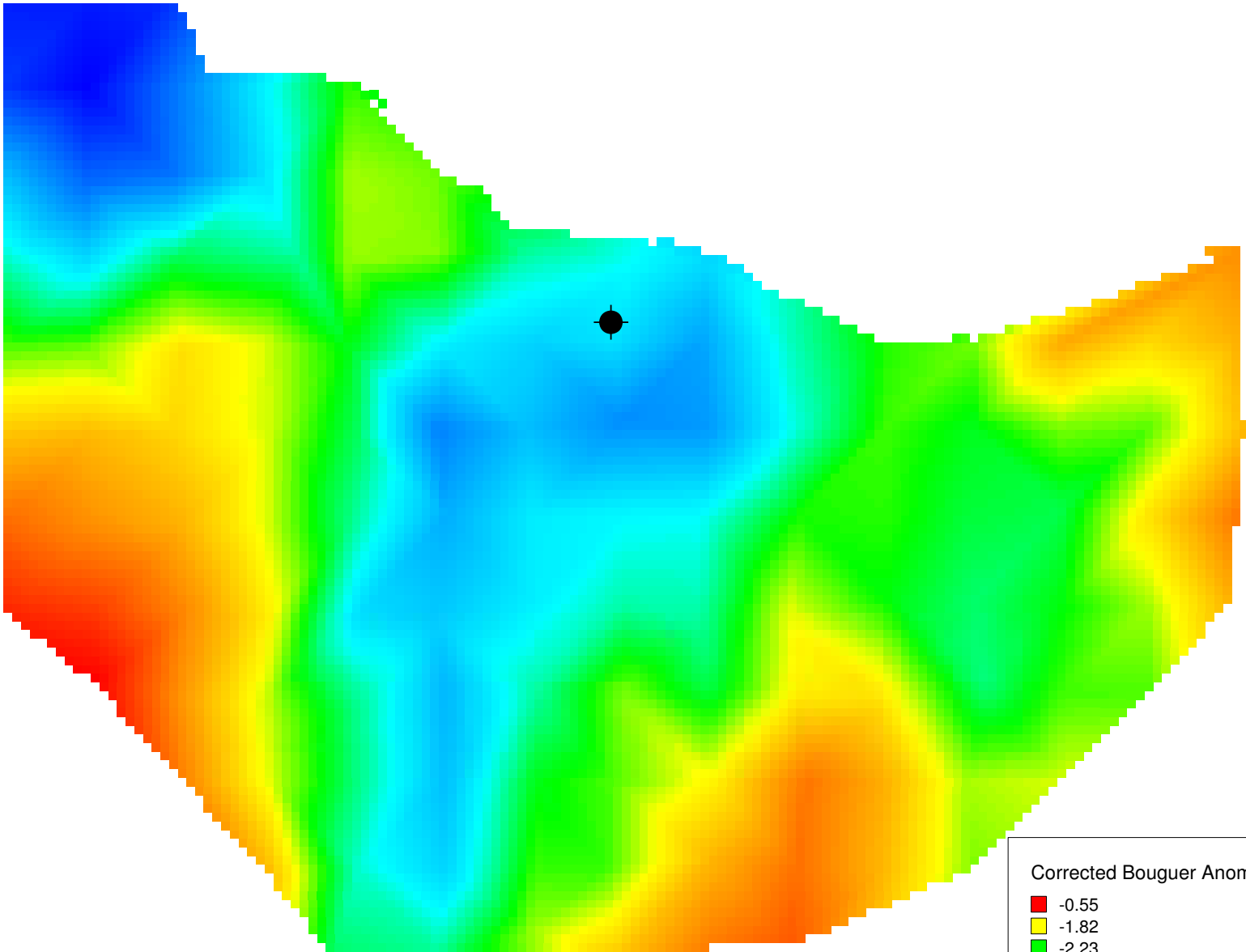
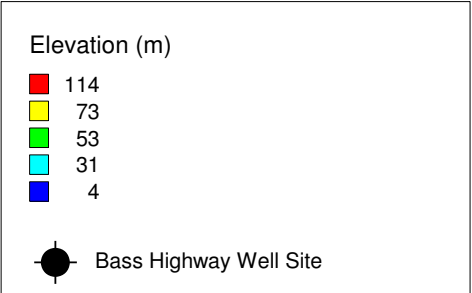
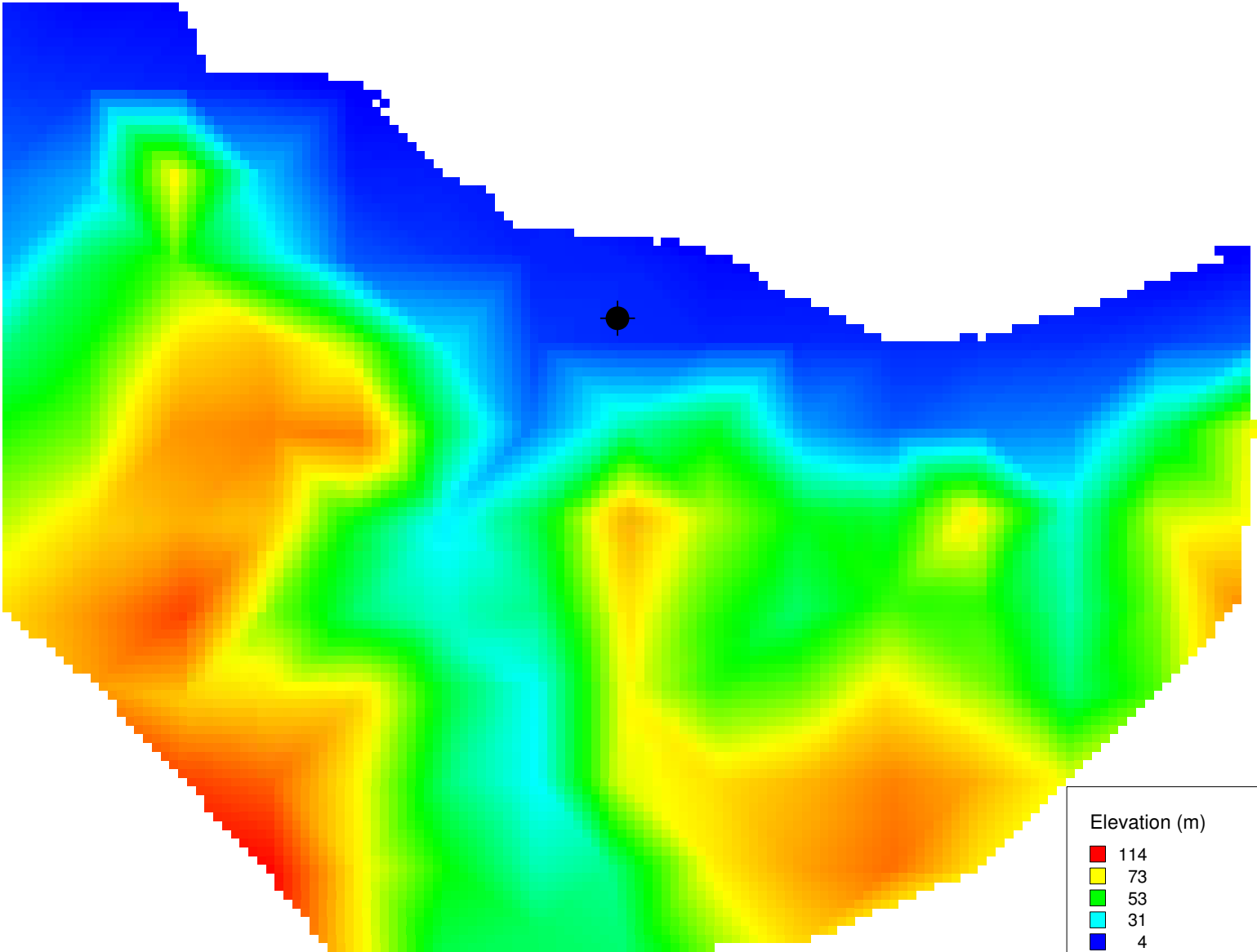
Dynamic Satellite Surveys : Phone 1800 060 407

Overseas Energy Holdings Limited

Gravity Survey - Highway Lines

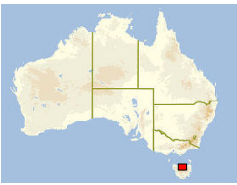
| | |
|-------|----------------|
| Scale | 1:300,000 (A3) |
| Drawn | D Williams |
| File | Highway Lines |
| Job# | 10073 |
| Date | 02-03-2011 |

Thematic Maps



The purpose of this map is to represent the surveyed digital data in a pictorial manner only. The accuracy of the underlying topographic image in no way relates to the accuracy of the surveyed digital data. Features on the topographic map have not necessarily been surveyed by DSS. Any use of this map for reasons other than the purpose for which it was created is not authorised.

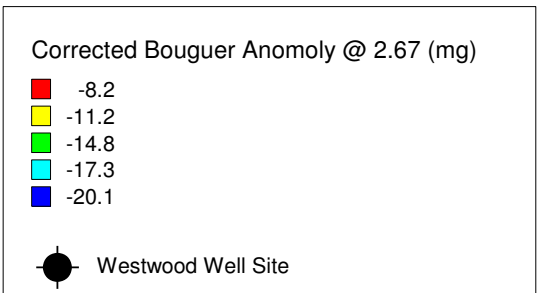
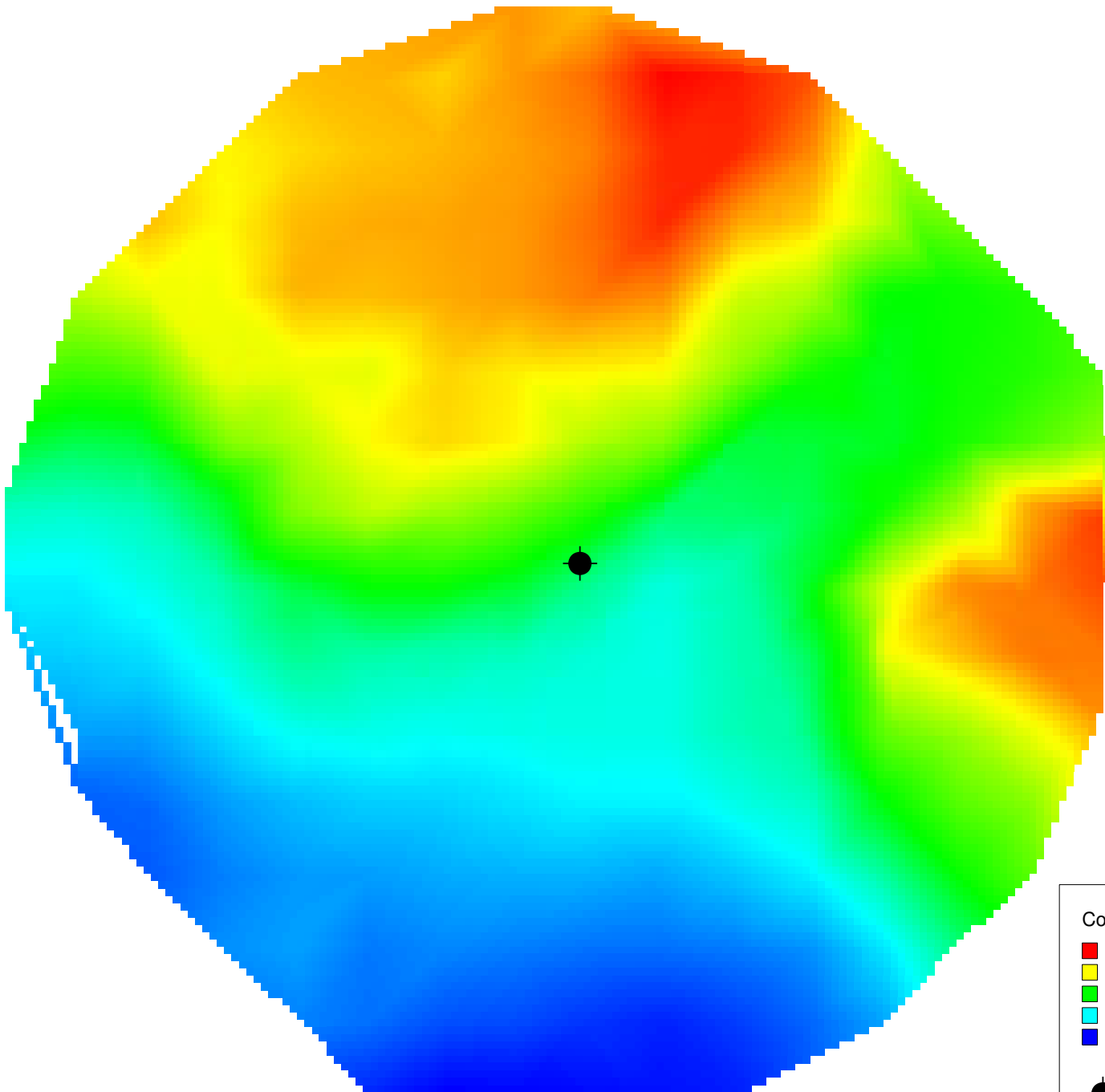
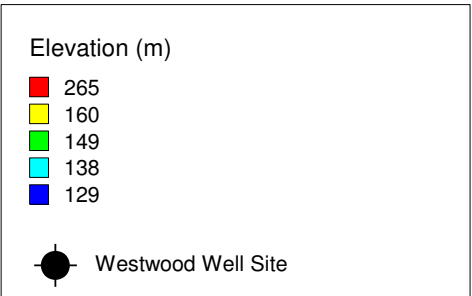
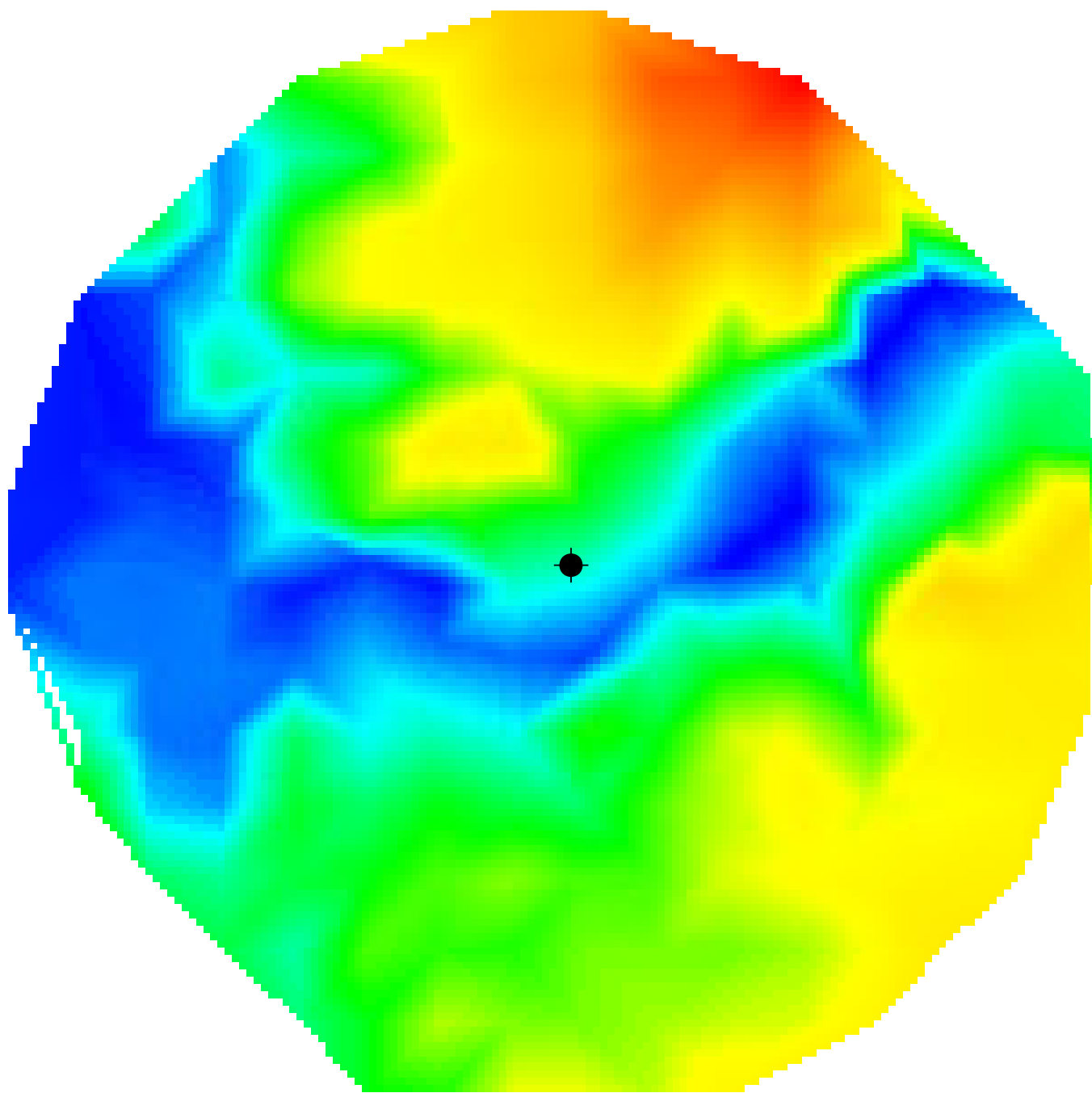
Dynamic Satellite Surveys : Phone 1800 060 407

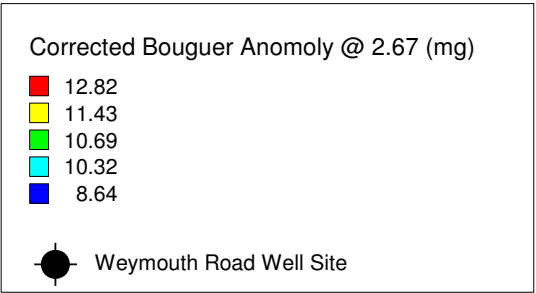
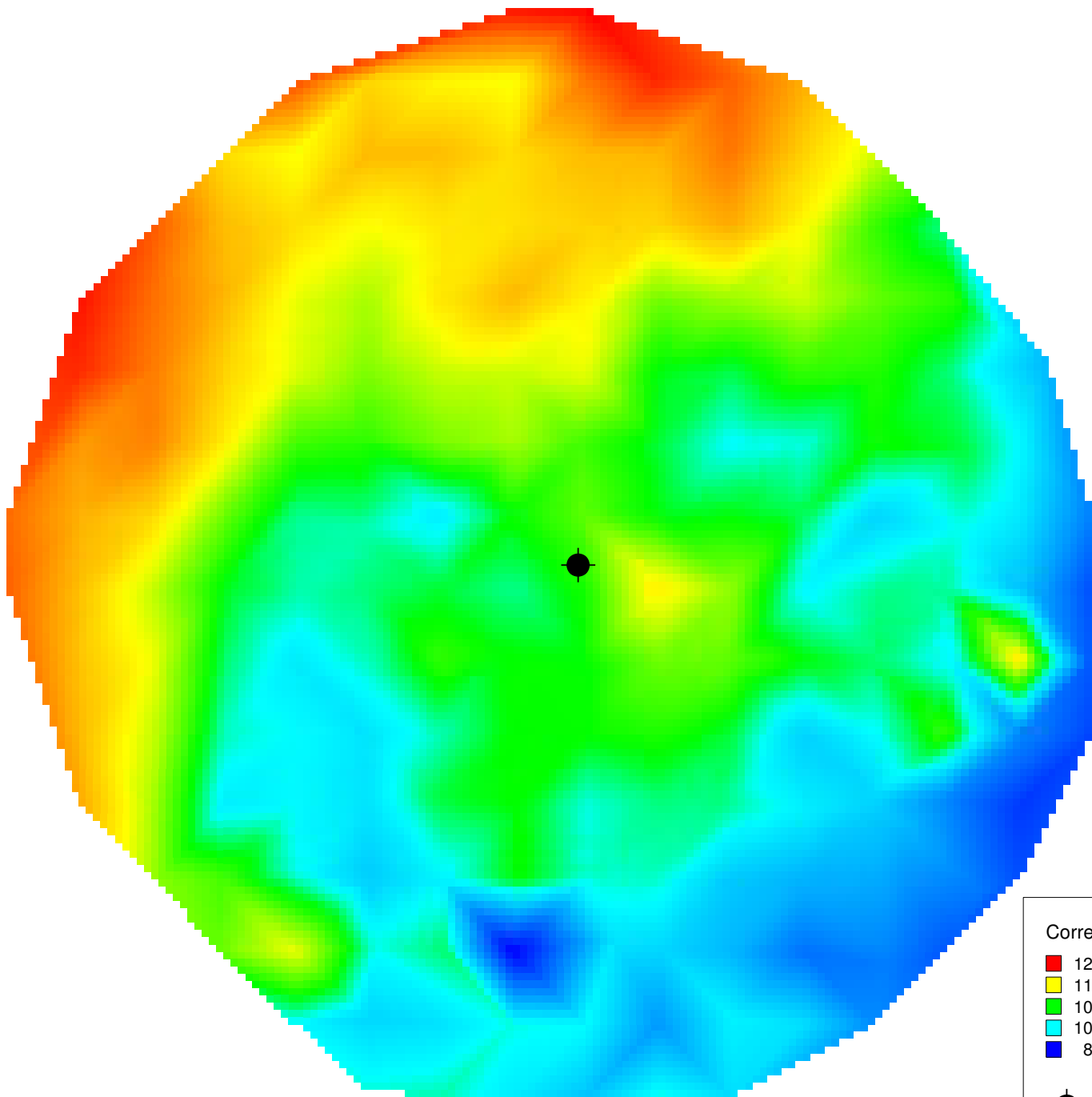
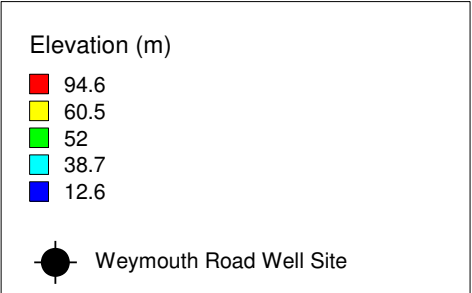
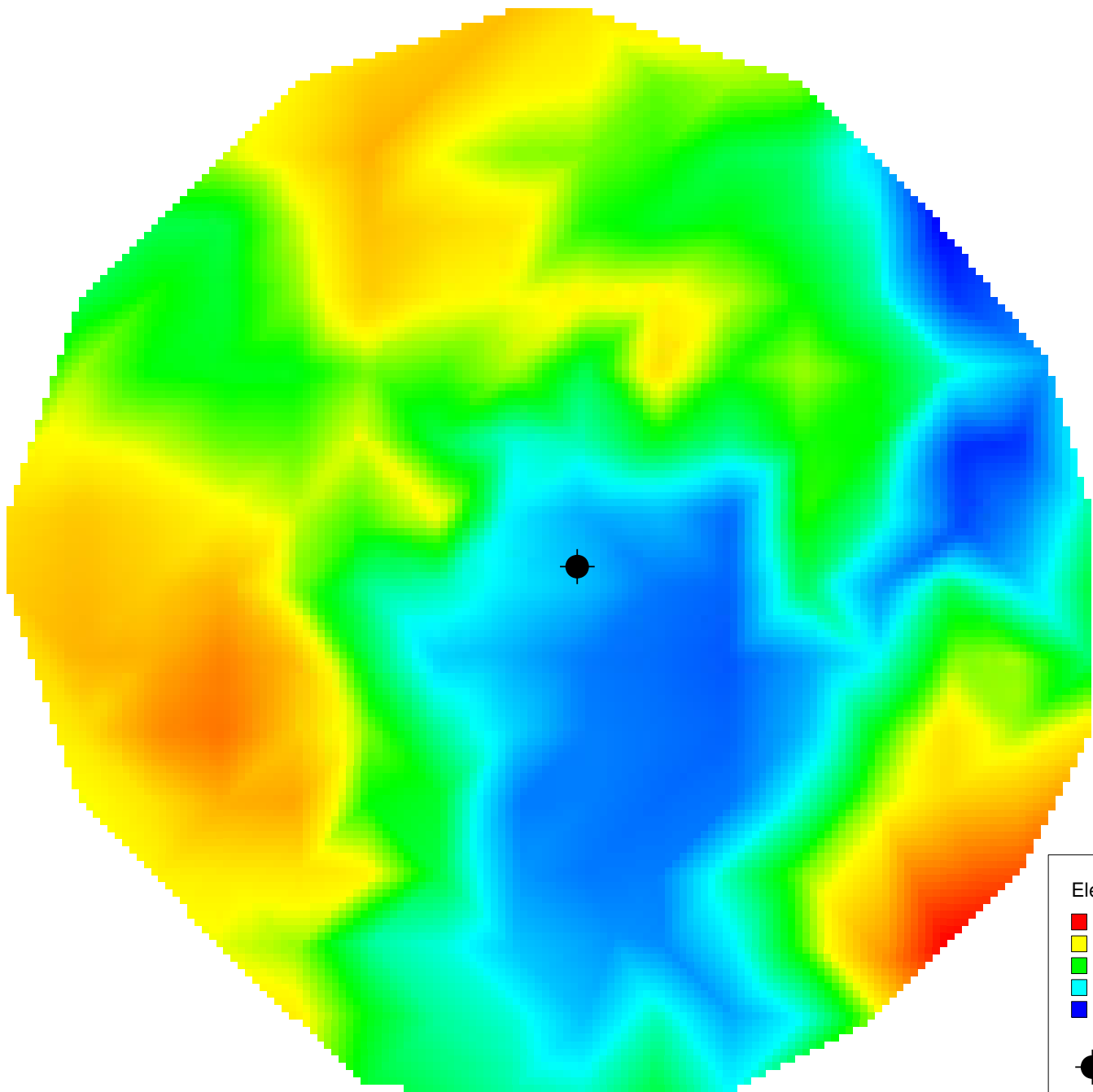


OEHL

Bass Highway

| | |
|-------|----------------|
| Scale | 1 : 1,750 (A3) |
| Drawn | Mark Green |
| File | Elev Vs CBA |
| Job# | 10073 |
| Date | 22-02-11 |

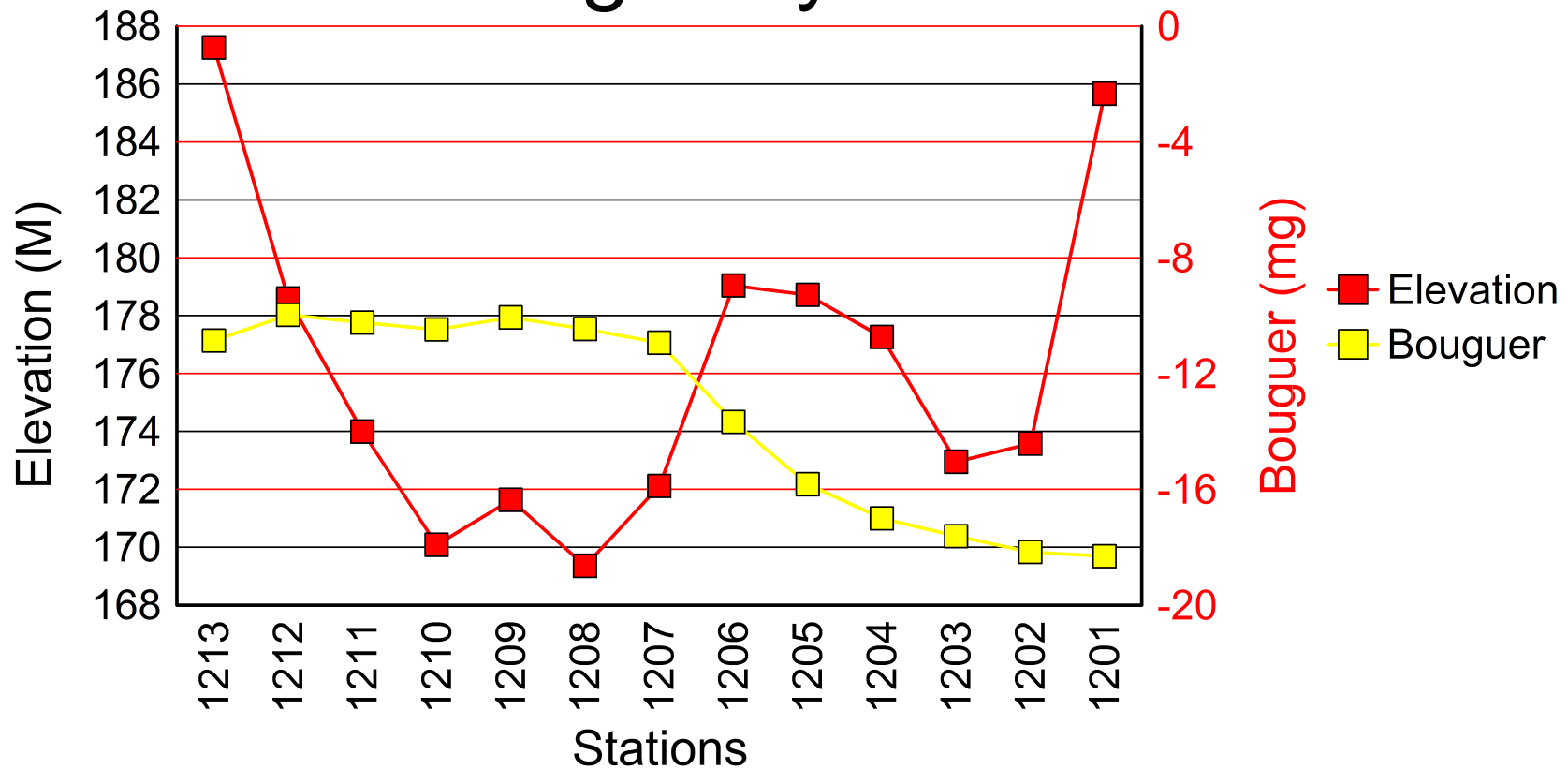




Highway Elevation vs CBA Graphs

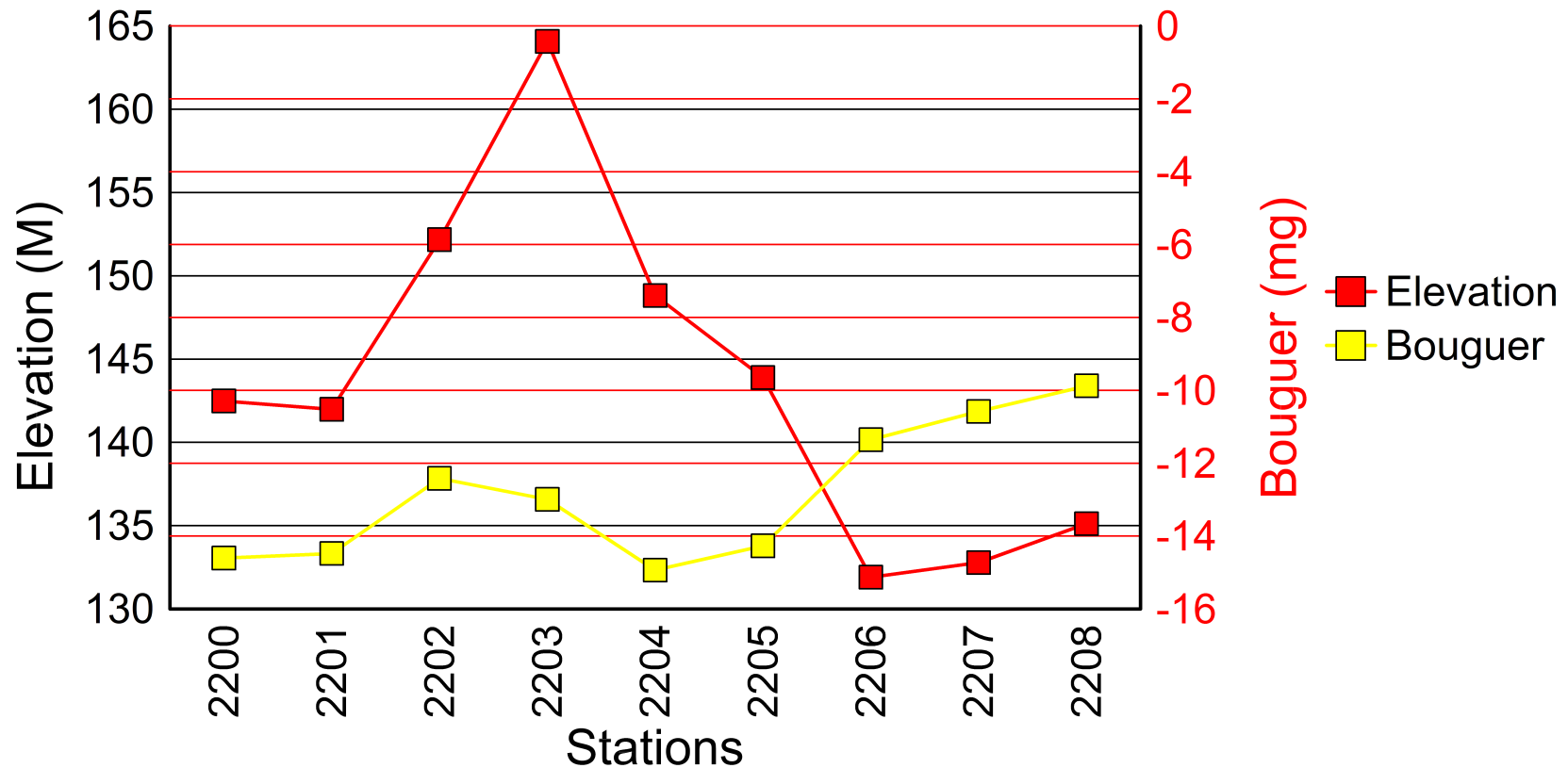
ELEVATION vs CBA 2.67

Highway Line 1



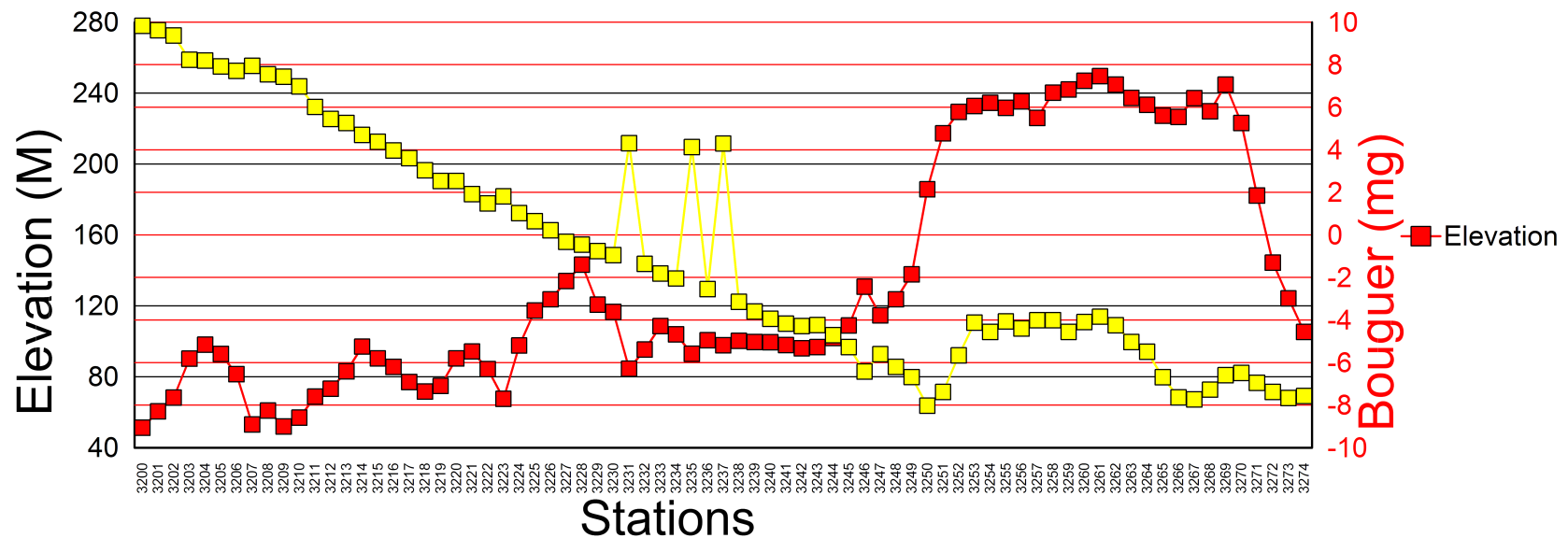
ELEVATION vs CBA 2.67

Highway Line 2



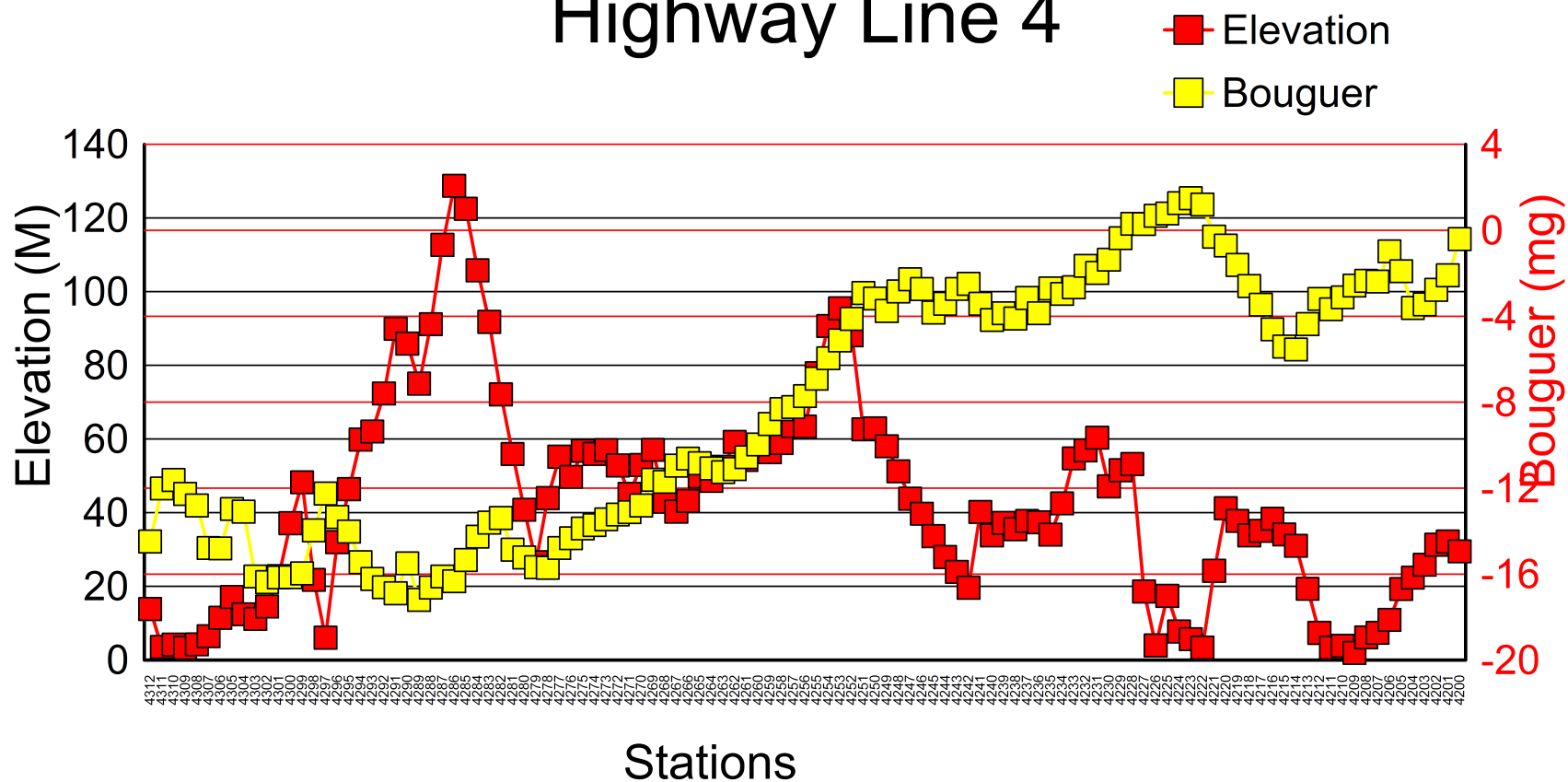
ELEVATION vs CBA 2.67

Highway Line 3



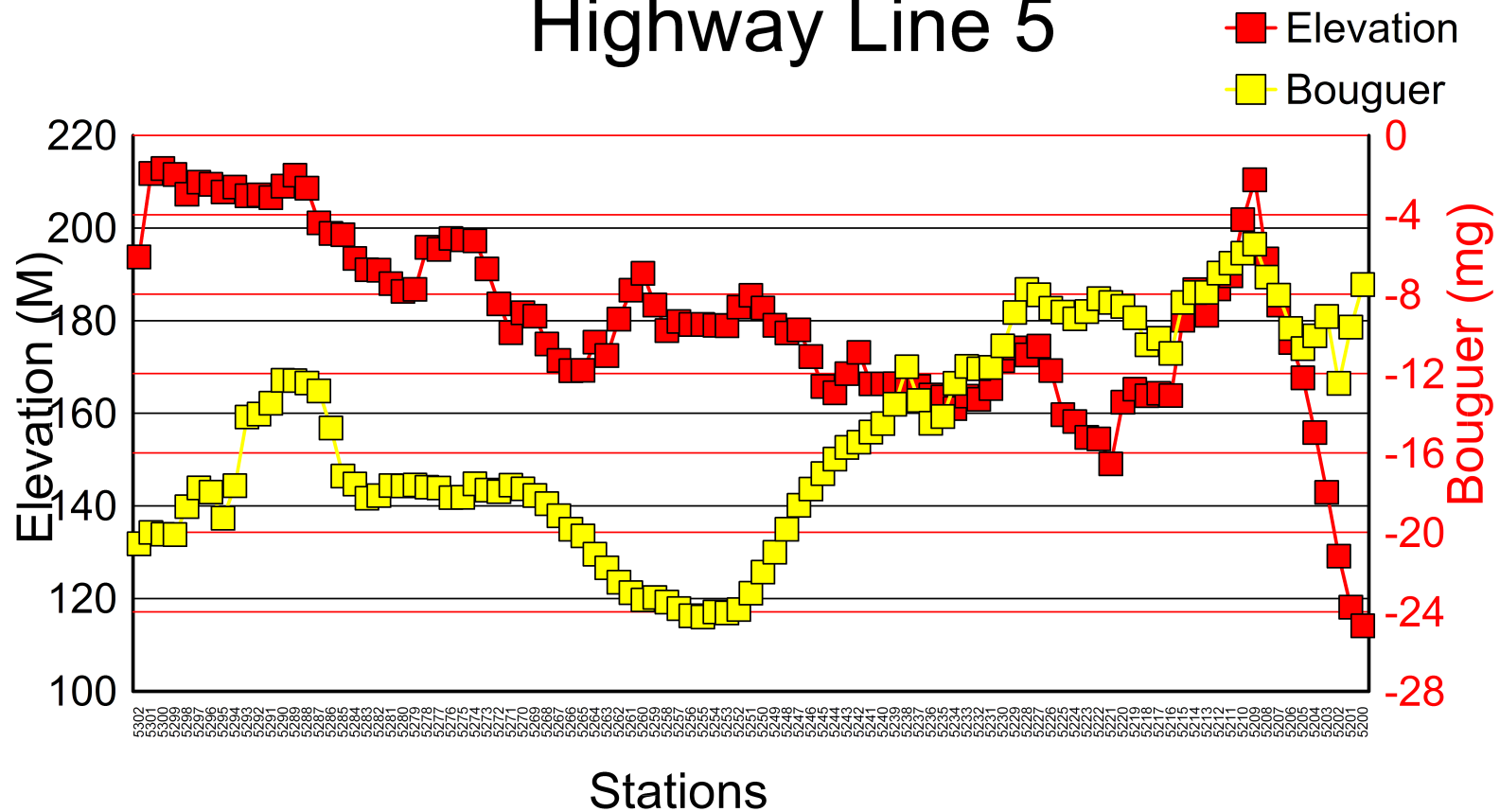
ELEVATION vs CBA 2.67

Highway Line 4



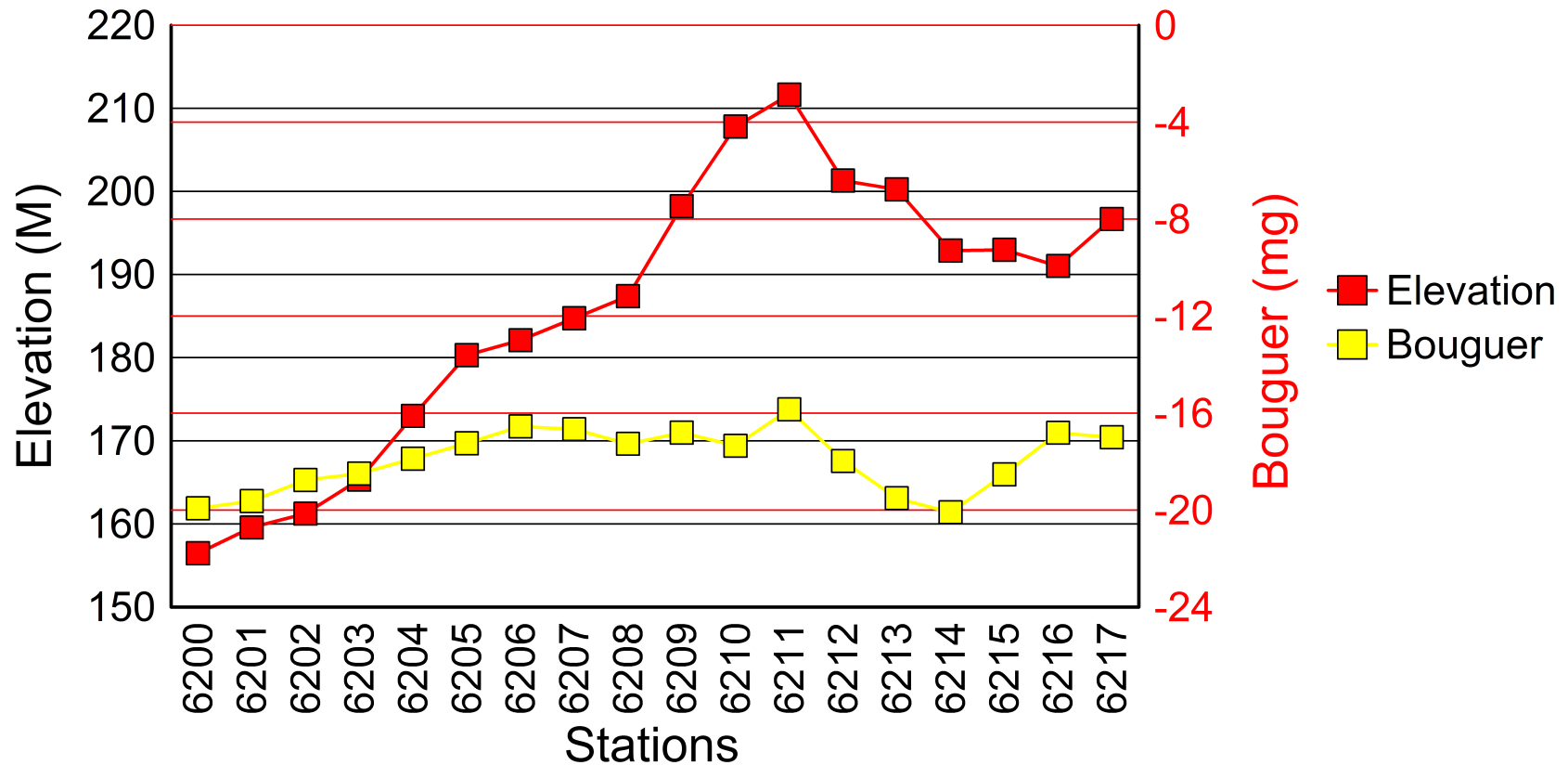
ELEVATION vs CBA 2.67

Highway Line 5



ELEVATION vs CBA 2.67

Highway Line 6



Gravity Control Diagrams

GRAVITY BASE DESCRIPTION

DSS-FF-39

REV 1.0

June 2008

PROJECT / JOB # 10073 CLIENT OEHL DAY / DATE DEC 2010

STATION NAME: LWM TAGGED AS: 10073 OEHL DSS
GRAV BASE LWM

Date Installed: 07-12-2010 Installed By: Mark Green OBSERVED GRAVITY: 980283.148 mg

Grid Coordinates

Easting: 510956.9

Northing: 5412281.6

Datum: MGA94 Zone: 55

AHD (H): 9.303m Geoid Separation: (N): -0.61

Geographical Coordinates

Latitude: -41°26' 27.5"

Longitude: 147°07' 52.2"

Datum: GDA94

Ellipsoid Ht (h): 8.693m Geoid Model: AusGeoid98

Mark Description: **Located in the car park of the Leisure Inn Penny Royal, in the eastern end of the car park there is a garden bed at the foot of the Windmill. The location of the gravity control station is at the base of the garden bed in the south east corner.**

Photograph looking North at station.



Photograph looking South at station.



Photograph looking East at station.



Photograph looking West at station.



GRAVITY BASE DESCRIPTION

DSS-FF-39

REV 1.0

June 2008

PROJECT / JOB # 10073 CLIENT OEHL DAY / DATE JAN 2011

STATION NAME: DO TAGGED AS: 10073 OEHL DSS
GRAV BASE DO

Date Installed: 26-01-2011 Installed By: Mark Green OBSERVED GRAVITY: 980271.986 mg

| <u>Grid Coordinates</u> | | <u>Geographical Coordinates</u> | |
|-------------------------|----------------|---------------------------------|-----------------|
| Easting: | 446378.90 | Latitude: | -41° 10' 18.48" |
| Northing: | 5442464.00 | Longitude: | 146° 25' 35.04" |
| Datum: | MGA94 Zone: 55 | Datum: | GDA94 |
| AHD (H): | 10.00m | Ellipsoid Ht (h): | 8.840m |
| Geoid Separation: (N): | -1.160 | Geoid Model: | AusGeoid98 |

Mark Description: **Located at the base of the ticket booth at the entrance of the Devonport Oval, base is located at the north east corner of the ticket booth.**

Photograph looking North at station.



Photograph looking South at station.



Photograph looking East at station.



Photograph looking West at station.



Observations Summary

GRID SUMMARY

2010-11 OEHL Gravity Survey
Station Interval = 250m by 250m grid

| Grid Name | Observations | Checks |
|------------------|---------------------|---------------|
| Westwood | 195 | 24 |
| Weymouth Rd | 188 | 28 |
| Bass Highway | 123 | 16 |
| TOTAL | 506 | 68 |

HIGHWAY SUMMARY

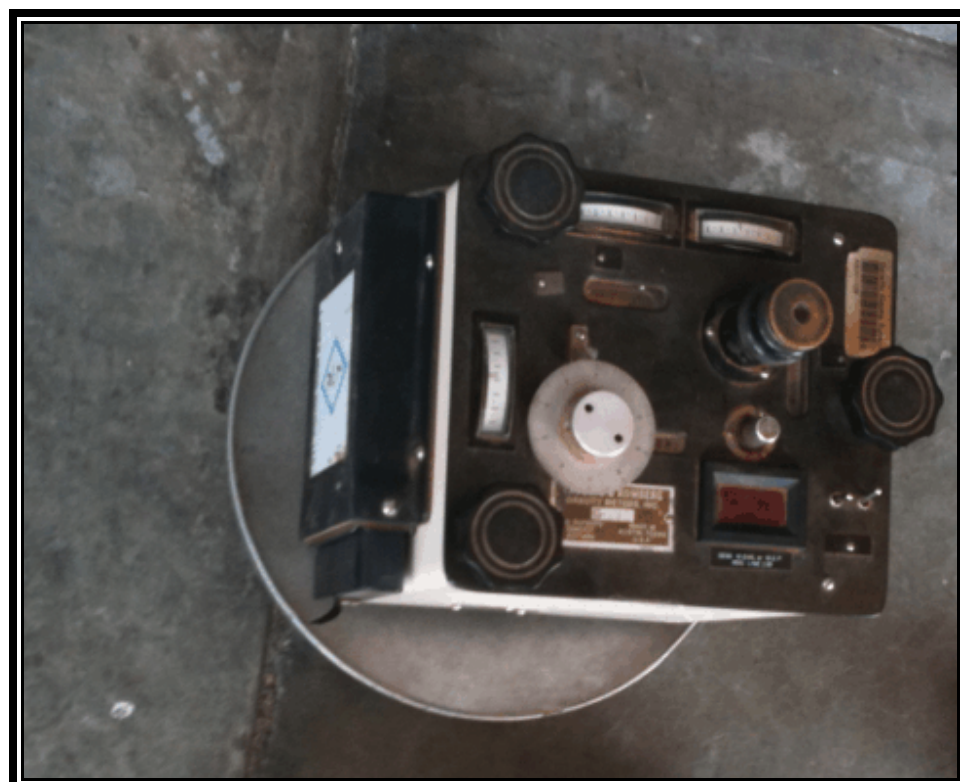
2010-11 OEHL Gravity Survey
Station Interval = 450m

| Line Name | Observations | Checks |
|------------------|---------------------|---------------|
| Line 1 | 13 | 2 |
| Line 2 | 9 | 1 |
| Line 3 | 75 | 8 |
| Line 4 | 113 | 8 |
| Line 5 | 103 | 10 |
| Line 6 | 18 | 2 |
| TOTAL | 331 | 31 |

Photographs



Mark Green observing gravity for control loop at Launceston Airport



Gravity meter G-692



Example of section on highway lines where surveyors deemed it unsafe due to limited space to pull off road.



Example of where observation on highway line has been moved to reduce terrain correction.



Fence crossing through thick gauze country on Westwood prospect.



Leigh Franks and Yuri Marinovich observing at Westwood prospect.



Example of bushland on Weymouth Road prospect.



Majestic views on Bass Highway prospect