

Australian Desalinated Water Pty Ltd

**PO Box 402 Angaston, South Australia
5353**

ABN 008 064 211

FINAL TECHNICAL REPORT

EXPLORATION LICENCE 5203

Alice Park

for the period 4 April 2013 to

Surrender

**Distribution: DSD
Australian Desalinated Water**

10 December 2014

CONTENTS

1. INTRODUCTION

2. TENURE

3. LOCATION

4. GEOLOGY

5. WORK UNDERTAKEN

5.1 Geological Synthesis and Drill Programme Design

5.2 Drilling and Results of Drilling

6. PROPOSED WORK

7. ENVIRONMENTAL MANAGEMENT

8. EXPENDITURE

9. REFERENCES

TABLES

Table 1	EL 5203	2013 Drillhole Data
---------	---------	---------------------

APPENDICES

Appendix 1	Geological Logs
Appendix 2	Exploration Expenditure
Appendix 3	Drillhole Location Plans

1. INTRODUCTION

This report describes exploration activities on EL 5203 for the period from 4 April 2013 to surrender of tenure.

Australian Desalinated Water Pty Ltd 'ADW' is the Licensee and Operator of the tenement.

ADW took up the Licence to explore for economic accumulations of heavy mineral sands – principally zircon and the titanium minerals rutile, leucoxene and ilmenite - in the Loxton-Parilla Sands, a unit contained within the Tertiary-aged Murray Basin succession.

Preliminary work comprised analysis of existing geological and geophysical data, geological synthesis and geological reconnaissance.

Between 30 April and 3 May 2013 targets generated were tested by aircore drilling. Drill returns were sampled, geologically logged and panned for concentrations of heavy minerals.

2. TENURE

Exploration Licence 5203 was granted to ADW on 4 April 2013 for a period of two years with standard licence conditions.

The tenement covers an area of 902 square kilometres.

3. LOCATION

EL 5203 is located in the south east of South Australia. It abuts the Victorian border and its southern boundary lies approximately 10 kilometres north of Bordertown township.

Access to the district is via the Princes Highway which links Adelaide and Melbourne and which passes through Bordertown south of the Licence area. Numerous unsealed roads allow good access within the Licence area.

4. GEOLOGY

EL 5203 covers a portion of the southern section of the Tertiary-aged Murray Basin where marginal-marine and open-marine Murray Basin strata overlie the Otway Basin succession.

The reader is referred to The Geology of South Australia Volume 2: 'The Phanerozoic', for a description of the regional geology (Drexel, J.P., Preiss, W.V. and Parker, A.J., 1993).

5. WORK UNDERTAKEN

5.1 Geological Synthesis and Drill Programme Design

The focus for exploration was the discovery of economic accumulations of heavy mineral sand. Concentrations of zircon and the titanium minerals were particularly targeted.

The results of earlier drill programmes were reviewed. Particular attention was paid to the results of mineral sand exploration drilling programmes undertaken by Basin Minerals and Iluka Resources.

The results of drilling reported by Basin and Iluka of were integrated with the results of airborne magnetic survey and digital terrain modelling data to derive the geological model described below. This model formed the basis for selection of exploration drill targets.

It was concluded that:

- The strike of individual sediment packages within the Loxton Parilla Sand in the tenement area is approximately northwest-southeast.

Stratigraphic correlation is apparent between the sedimentary succession intercepted by Basin Minerals' drillholes BT56 and BT67 and the sequences intercepted in Basin Minerals drillholes BT70 and BT64.

- Within the Loxton-Parilla sediment packages, high-energy beach or 'surfzone' environments of deposition were not recognised to occur southwest of an alignment between Basin Minerals' drillholes BT69 and BT62.

Loxton-Parilla sediments to the southwest of this alignment were assigned a low exploration priority.

- Northeast of a northwest-southeast alignment through Basin Minerals' drillhole BT55, the only high-energy 'surfzone' environments of deposition recognised in the Loxton-Parilla Sand were found to occur at depths in the order of 20 metres.

Loxton-Parilla sediments to the northeast of this alignment were also assigned a low exploration priority.

- In the area between these alignments, Basin Minerals and Iluka drilling intersected high-energy sand packages within the Loxton-Parilla Sand at shallow depths. This zone was considered prospective for the discovery of heavy mineral accumulations and it was designated the 'Exploration Fairway'.

Intercepts of very fine-grained micaceous sands were also noted within the Exploration Fairway. These sequences were interpreted to be the products of offshore environments of deposition. Major heavy mineral deposits have been found to occur in very fine grained sands near Horsham in western Victoria – the WIM-style mineralisation.

- Within the Exploration Fairway, magnetic basement magnetic features (which trend in a northerly or northeasterly direction) were found to be overprinted at a series of localities by weakly-developed northeasterly oriented magnetic highs, each of limited strike extent, in the order of 3 kilometres.
- These weak northeasterly-oriented magnetic highs aligned with the probable strike direction of Loxton-Parilla sedimentation and it was noted that the paramagnetic heavy mineral ilmenite is commonly associated with zircon, rutile and leucoxene accumulations in Murray Basin strata.

It was further noted that magnetic responses from ilmenite - most notably near Balranald in New South Wales- have proved a useful guide to discovery of heavy mineral accumulations in the Murray Basin.

- It was hypothesised that the weak magnetic features within the Exploration Fairway might reflect the presence of magnetic minerals contained within heavy mineral accumulations in Loxton-Parilla sediments.
- The seven most clearly defined 'magnetic overprint' anomalies within the Exploration Fairway were selected for drill-testing by a single traverse of shallow aircore drilling. The objective of this drilling was to test for the occurrence of heavy mineral accumulations in beach, in the Loxton-Parilla Sand.

5.2 Drilling and Results of Drilling

5.2.1 Conduct of drill programme

556 metres of aircore drilling were completed in 23 holes on 7 traverses drilled along road verges and in paddocks for a total drill traverse distance of approximately ten kilometres.

Drilling was conducted by McLeod Drilling using a KD150 drilling rig mounted on a Hino 4X4 truck. A 4X4 Isuzu truck carried diesel, water, drill rods and equipment in support.

The drillrig was set up for aircore blade drilling to blade refusal. A face sampling aircore hammer was available to penetrate hard bands but was not required. All drilling was completed using a blade bit.

Holes were positioned to avoid site preparation and to minimise disturbance. Each hole was back filled, plugged using an octa plug, levelled and raked to restore it to its original state before the site was vacated.

Site operations were supervised by contract geologist Tony Mason and ADW geologist David Clarke.

Representative samples were taken from each metre of drill returns for geological logging and panning to search for traces of heavy minerals. A full suite of samples of one hole from each drill traverse were retained for submission to DSD Corestore.

Drillhole details are presented in Table 1 and copies of all geological logs are contained in Appendix 1. Drillholes were numbered by reference to year (13) and Exploration Licence Number (5203) to create a prefix of 135203.

Thereafter each drillhole was numbered consecutively in the order of drillingfrom Drillhole 135203-001 to Drillhole 135203-023.

TABLE 1 EL 5203: 2013 DRILLHOLE DATA

Traverse 001-005

HOLE	DATE DRILLED	TD m	DRILLING METHOD	DIP	MGA GDA94 Zone 53 (GPS accuracy ± 3m)
135203-001	1/5/2013	24	AC Blade	-90°	E 463520 N 6020975
135203-002	1/5/2013	21	AC Blade	-90°	E 463630 N 6021161
135203-003	1/5/2013	24	AC Blade	-90°	E 463760 N 6021377
135203-004	1/5/2013	12	AC Blade	-90°	E 463862 N 6021570
135203-005	1/5/2013	15	AC Blade	-90°	E 464000 N 6021808

Traverse 006-008

HOLE	DATE DRILLED	TD m	DRILLING METHOD	DIP	MGA GDA94 Zone 53 (GPS accuracy \pm 3m)
135203-006	1/5/2013	20	AC Blade	-90°	E 478839 N 6008648
135203-007	1/5/2013	20	AC Blade	-90°	E 478960 N 6008834
135203-008	1/5/2013	18	AC Blade	-90°	E 479080 N 6009000

Traverse 009-011

135203-009	1/5/2013	27	AC Blade	-90	E 4766961 N 6006392
135203-010	1/5/2013	21	AC Blade	-90°	E 476854 N 6006216
135203-011	1/5/2013	21	AC Blade	-90°	E 476759 N 6006105

Traverse 012-014

135203-012	2/5/2013	24	AC Blade	-90°	E 476003 N 5993034
135203-013	2/5/2013	24	AC Blade	-90°	E 476169 N 5993024
135203-014	2/5/2013	24	AC Blade	-90	E 475833 N 5993059

Traverse 015-017

135203-015	2/5/2013	24	AC Blade	-90°	E 472813 N 5992972
135203-016	2/5/2013	24	AC Blade	-90°	E 472657 N 5992880
135203-017	2/5/2013	24	AC Blade	-90°	E 472875 N 5993085

Traverse 018-020

HOLE	DATE DRILLED	TD m	DRILLING METHOD	DIP	MGA GDA94 Zone 53 (GPS accuracy \pm 3m)
135203-018	2/5/2013	30	AC Blade	-90°	E 494690 N 6014150
135203-019	2/5/2013	42	AC Blade	-90°	E 494830 N 6014295
135203-020	2/5/2013	36	AC Blade	-90°	E 494548 N 6014004

Traverse 021-023

135203-021	2/5/2013	30	AC Blade	-90°	E 493450 N 5998440
135203-022	3/5/2013	30	AC Blade	-90°	E 493592 N 5998582
135203-023	3/5/2013	21	AC Blade	-90	E493308 N5998300

5.2.2 Results of Drilling

Although traces of heavy mineral were encountered in the drill returns at several locations the tenor of mineralisation was assessed to be uneconomic and no samples were submitted for heavy mineral determination. Details are contained in the attached geological logs.

It was concluded that the weak magnetic anomalies targeted by the 2013 drill programme reflect basement rock characteristics rather than mineralisation contained in the Loxton-Parilla Sand.

The EL 5203 exploration concept was considered to have been sufficiently tested and no further work was considered warranted.

6. PROPOSED WORK

No further work is proposed and application has been made to relinquish the tenure.

7. ENVIRONMENTAL MANAGEMENT

ADW has adopted the PIRSA Generic PEPR for all low impact mineral exploration activity (Minerals Regulatory Guideline MG8). Drilling was conducted in accordance with a DSD-approved EWA.

The only activity undertaken which had potential to cause environmental impact was drilling.

The 23 shallow holes completed were drilled along road verges and in paddocks. No access preparation was required. All holes were back filled, octa-plugged and each site was fully rehabilitated before the site was vacated.

No groundwater was encountered in the course of drilling.

An Exploration Compliance Report for the relevant period has been prepared for lodgement with DSD.

8. EXPENDITURE

Exploration expenditure of \$ 85,180 has been spent on EL 5203 during the relevant period.

Details are presented in Appendix 3.

9. REFERENCES

Drexel, J.P., Preiss W.V. and Parker, A.J., 1993. The Geology of South Australia. Vol. 2, The Phanerozoic. South Australia Geological Survey. Bulletin 54.

Appendix 1

GEOLOGICAL LOGS

DRILLHOLE GEOLOGICAL LOG

HOLE: 135203-001

PROJECT: Alice Park Heavy Minerals

Date Started: 1 May 2013

Total Depth: 24 m

Date Completed: 1 May 2013

Drilling Method:

Location: MGA Zone 53

AC Blade to 24m

E 463520

Sample Interval: 1m

N 6020975

Drilling Contractor: McLeod Drilling

Geological Logging: Tony Mason / David Clarke

INTERVAL From – To m	LITHOLOGICAL DESCRIPTION
0 – 3	SAND pale grey, very fine grained, clayey, minor calcrete. Interpretation-Dune
3 - 7	SAND light grey/brown, very fine-medium grained, clayey
7 - 12	SAND light yellow brown, medium to coarse , clayey
12-18	SAND cream/white very fine grained. MINOR TRACE HM 12-13m Interpretation-Offshore facies Loxton-Parilla Sand
18-24 TD	SAND light yellow brown very fine grained. TRACE HM. Interpretation-Offshore facies Loxton-Parilla Sand

DRILLHOLE GEOLOGICAL LOG

HOLE: 135203-002

PROJECT: Alice Park Heavy Minerals

Date Started: 1 May 2013

Total Depth: 21m

Date Completed: 1 May 2013

Drilling Method: AC Blade to 21m

Location: MGA Zone 53

E463630

Sample Interval: 1m

N 6021161

Drilling Contractor: McLeod Drilling

Geological Logging: Tony Mason/David Clarke

INTERVAL From – To m	LITHOLOGICAL DESCRIPTION
0 – 6	SAND Cream/white very fine grained, clayey Interpretation-Dune
6 – 10	CLAY, Sandy, grey/green Interpretation-Blanchetown Clay
10 – 13	SAND, Clayey, yellow/brown, fine to coarse, trace gravel 12-13, trace of limestone Interpretation-littoral facies, Loxton-Parilla Sand
13 – 21 TD	SAND, pale pink/yellow to white, very fine grained, trace limestone 17-19m. Interpretation-Offshore facies, Loxton-Parilla Sand

DRILLHOLE GEOLOGICAL LOG

HOLE:135203-003

PROJECT: Alice Park Heavy Minerals

Date Started: 1 May 2013

Total Depth: 24m

Date Completed: 1 May 2013

Drilling Method: AC Blade to 24m

Location: MGA Zone 53

E 463760

Sample Interval: 1m

N 6021377

Drilling Contractor: McLeod Drilling

Geological Logging: Tony Mason/David Clarke

INTERVAL From – To m	LITHOLOGICAL DESCRIPTION
0 – 2	SAND light grey, very fine grained Interpretation-Dune
2 – 5	CLAY and SILT , brown Interpretation- Blanchetown Clay
5-12	SAND light brown, fine to coarse grained , clayey 7-12 , minor gravel 11-12m Interpretation Littoral facies, Loxton-Parilla Sand
12-24 TD	SAND pale yellow brown,very fine grained Interpretation- Offshore Loxton-Parilla Sand

DRILLHOLE GEOLOGICAL LOG

HOLE: 135203-004

PROJECT: Alice Park Heavy Minerals

Date Started: 1 May 2013

Total Depth: 12m

Date Completed: 1 May 2013

Drilling Method: AC Blade to 12m

Location: MGA Zone 53

E 463862

Sample Interval: 1m

N 6021570

Drilling Contractor: McLeod Drilling

Geological Logging: Tony Mason/David Clarke

INTERVAL From – To m	LITHOLOGICAL DESCRIPTION
0 – 2	SAND light brown, very fine grained Interpretation- Dune
2 – 8	CLAY, Sandy, yellow/brown
8 – 9	CLAY, SANDY, red brown Interpretation- Karoonda Surface
9 – 11	SAND, pale yellow brown, medium to coarse grained, clayey.
11 – 12 TD	SAND, pale yellow brown, very fine grained. Interpretation – Offshore facies Loxton-Parilla Sand

DRILLHOLE GEOLOGICAL LOG

HOLE: 135203-005

PROJECT: Alice Park Heavy Minerals

Date Started: 1 May 2013

Total Depth: 15m

Date Completed: 1 May 2013

Drilling Method: AC Blade to 15m

Location: MGA Zone 53

E 464000

Sample Interval: 1m

N 6021808

Drilling Contractor: McLeod Drilling

Geological Logging: Tony Mason/David Clarke

INTERVAL From – To m	LITHOLOGICAL DESCRIPTION
0 – 2	SAND light brown, very fine grained . Interpretation- Dune
2 – 5	CLAY, sandy, brown from 2-4m, light brown clay with fine to medium sand from 4-5.
5 - 12	SAND, light brown, fine to medium grained. Interpretation – Beach/Dune environment
12 – 15 TD	SAND, pale yellow brown very fine grained, with minor clay 13-14 m Interpretation – Offshore facies Loxton Parilla Sand .

DRILLHOLE GEOLOGICAL LOG

HOLE: 135203-006

PROJECT: Alice Park Heavy Minerals

Date Started: 1 May 2013

Total Depth: 21m

Date Completed: 1 May 2013

Drilling Method: AC Blade to 21m

Location: MGA Zone 53

E 478839

Sample Interval: 1m

N 6008648

Drilling Contractor: McLeod Drilling

Geological Logging: Tony Mason/David Clarke

INTERVAL From – To m	LITHOLOGICAL DESCRIPTION
0 – 1	SAND white, very fine grained Interpretation- Dune
1 - 9	CLAY, brown, sandy from 1-3 m, light brown clay with fine to medium sand from 4-5. Interpretation - Blanchetown Clay
9 - 15	CLAY, red/brown, 9-14m, light brown and sandy 14-15. Interpretation – Blanchetown Clay
15 - 21 TD	SAND, white very fine grained Interpretation – Offshore facies Loxton Parilla Sand

DRILLHOLE GEOLOGICAL LOG

HOLE: 135203-007

PROJECT: Alice Park Heavy Minerals

Date Started: 1 May 2013

Total Depth: 21m

Date Completed: 1 May 2013

Drilling Method: AC Blade to 21m

Location: MGA Zone 53

E 478960

Sample Interval: 1m

N 6008834

Drilling Contractor: McLeod Drilling

Geological Logging: Tony Mason/David Clarke

INTERVAL From – To m	LITHOLOGICAL DESCRIPTION
0 – 4	SAND cream to light grey, very fine grained Interpretation- Dune
4 - 7	CLAY, light brown grading to red/brown Interpretation - Blanchetown Clay
7 - 9	CLAY, red/brown and SAND , very fine grained Interpretation – Blanchetown Clay
9 - 21 TD	SAND, cream to light brown, very fine grained Interpretation – Offshore facies Loxton Parilla Sand

DRILLHOLE GEOLOGICAL LOG

HOLE: 135203-008

PROJECT: Alice Park Heavy Minerals

Date Started: 1 May 2013

Total Depth: 18m

Date Completed: 1 May 2013

Drilling Method: AC Blade to 18m

Location: MGA Zone 53

E 479080

Sample Interval: 1m

N 6009000

Drilling Contractor: McLeod Drilling

Geological Logging: Tony Mason/David Clarke

INTERVAL From – To m	LITHOLOGICAL DESCRIPTION
0 – 2	SAND white, very fine grained Interpretation- Dune
2 - 5	CLAY, grey/green to brown Interpretation - Blanchetown Clay
5 - 6	GRAVEL, ferruginous, red/brown and SAND , very fine grained Interpretation – Karoonda Surface
6 – 18 TD	SAND, very fine grained red brown 5 – 7, pale brown 7 – 11, pale yellow 11 – 18 Interpretation – Offshore facies Loxton Parilla Sand

DRILLHOLE GEOLOGICAL LOG

HOLE: 135203-009

PROJECT: Alice Park Heavy Minerals

Date Started: 1 May 2013

Total Depth: 27m

Date Completed: 1 May 2013

Drilling Method: AC Blade to 27m

Location: MGA Zone 53

E 476961

Sample Interval: 1m

N 6006392

Drilling Contractor: McLeod Drilling

Geological Logging: Tony Mason/David Clarke

INTERVAL From – To m	LITHOLOGICAL DESCRIPTION
0 – 6	SAND white grading to pale brown very fine grained
6 - 11	CLAY, brown Interpretation - Blanchetown Clay
11 - 12	SANDY CLAY red/brown Interpretation – Karoonda Surface
12 - 20	SAND ,brown fine to coarse grained, clayey 12-18, red/brown, fine to medium grained 18-20. .
20 – 27 TD	SAND pale yellow/brown, fine to very fine grained. Interpretation – offshore facies, Loxton-Parilla Sand

DRILLHOLE GEOLOGICAL LOG

HOLE: 135203-010

PROJECT: Alice Park Heavy Minerals

Date Started: 1 May 2013

Total Depth: 21m

Date Completed: 1 May 2013

Drilling Method: AC Blade to 21m

Location: MGA Zone 53

E 476854

Sample Interval: 1m

N 6006216

Drilling Contractor: McLeod Drilling

Geological Logging: Tony Mason/David Clarke

INTERVAL From – To m	LITHOLOGICAL DESCRIPTION
0 – 2	SAND cream grading to pale brown very fine grained Interpretation - Dune
2 - 4	CLAY, brown and grey/brown Interpretation - Blanchetown Clay
4 - 6	SANDY CLAY grey/brown
6 - 15	SAND ,red/brown grading to brown fine to medium grained, clayey
15 – 21 TD	SAND pale yellow/brown, fine to medium grained, clayey to 20. From 20-21 very fine grained, interpreted as offshore facies, Loxton-Parilla Sand

DRILLHOLE GEOLOGICAL LOG

HOLE: 135203-011

PROJECT: Alice Park Heavy Minerals

Date Started: 1 May 2013

Total Depth: 21 m

Date Completed: 1 May 2013

Drilling Method: AC Blade to 21 m

Location: MGA Zone 53

E 476759

Sample Interval: 1m

N 6006105

Drilling Contractor: McLeod Drilling

Geological Logging: Tony Mason/David Clarke

INTERVAL From – To m	LITHOLOGICAL DESCRIPTION
0 – 3	SAND white/pale grey very fine grained
2 - 11	SANDY CLAY / CLAYEY SAND , brown 3-8, red/brown 8-11.
11 - 17	SAND , fine to medium grained, yellow brown grading to brown
17 - 21 TD	SAND, very fine grained yellow/brown 17-19, brown 19–21 Interpretation – Offshore facies Loxton Parilla Sand

DRILLHOLE GEOLOGICAL LOG

HOLE: 135203-012

PROJECT: Alice Park Heavy Minerals

Date Started: 2 May 2013

Total Depth: 24 m

Date Completed: 2 May 2013

Drilling Method: AC Blade to 24 m

Location: MGA Zone 53

E 476003

Sample Interval: 1m

N 5993034

Drilling Contractor: McLeod Drilling

Geological Logging: Tony Mason/David Clarke

INTERVAL From – To m	LITHOLOGICAL DESCRIPTION
0 – 1	SAND white/pale grey very fine grained . Interpretation- Dune
2 - 12	CLAY and SANDY CLAY , grey/brown grading to brown .
12 - 13	FERRUGINOUS red/brown fine to coarse clayey SAND , fine to medium grained, yellow brown grading to brown
13 - 18	SAND, fawn, fine to coarse grained, clayey, VERY MINOR TRACE HM from 14-16 .
18 – 24 TD	CLAY grey/brown, grading to yellow/brown Interpretation- Geera Clay

DRILLHOLE GEOLOGICAL LOG

HOLE: 135203-013

PROJECT: Alice Park Heavy Minerals

Date Started: 2 May 2013

Total Depth: 24 m

Date Completed: 2 May 2013

Drilling Method: AC Blade to 24 m

Location: MGA Zone 53

E 476169

Sample Interval: 1m

N 5993024

Drilling Contractor: McLeod Drilling

Geological Logging: Tony Mason/David Clarke

INTERVAL From – To m	LITHOLOGICAL DESCRIPTION
0 – 10	CLAY , brown, grading to grey and yellow/brown 0-2 and to red/brown 9-10
10 - 14	CLAY,SANDY , grey to pale brown, 60-80% clay, with fine/medium sand and a WEAK TRACE HM 11-14m .
14 - 15	SAND white, fine to medium grained,, 15% CLAY
15 - 21	CLAY, black15-19, dark brown 19-20, yellowbrown 20-21. Interpretation Geera Clay .
21 – 24 TD	SAND, clayey, yellow/brown, fine to coarse

DRILLHOLE GEOLOGICAL LOG

HOLE: 135203-014

PROJECT: Alice Park Heavy Minerals

Date Started: 2 May 2013

Total Depth: 24 m

Date Completed: 2 May 2013

Drilling Method: AC Blade to 24 m

Location: MGA Zone 53

E 475833

Sample Interval: 1m

N 5993059

Drilling Contractor: McLeod Drilling

Geological Logging: Tony Mason/David Clarke

INTERVAL From – To m	LITHOLOGICAL DESCRIPTION
0 – 6	CLAY , brown
6 - 11	SAND, clayey, fine to medium grained, pale yellow/brown .
11 - 18	SAND grey/white, very fine grained,, 35% clay, 11-13, grading to 20% clay 13-18 Interpretation - Offshore
18 - 24 TD	SAND clayey, yellow to pale brown, very fine grained, increasingly clay-rich, grading from 70% sand 19-20 to 50% sand 23-24 Interpretation - Offshore

DRILLHOLE GEOLOGICAL LOG

HOLE: 135203-015

PROJECT: Alice Park Heavy Minerals

Date Started: 2 May 2013

Total Depth: 24 m

Date Completed: 2 May 2013

Drilling Method: AC Blade to 24 m

Location: MGA Zone 53

E 472813

Sample Interval: 1m

N 5992972

Drilling Contractor: McLeod Drilling

Geological Logging: Tony Mason/David Clarke

INTERVAL From – To m	LITHOLOGICAL DESCRIPTION
0 – 9	CLAY , yellow/brown grading through brown to red/brown under 1 m of grey very fine dune sand at 0-1m.
9 - 11	SAND, clayey, fine to medium grained, pale yellow/brown .
11- 24 TD	SAND clayey, cream/pale brown, very fine grained, TRACE HM (0.25%) 19-20. Interpretation - Offshore

DRILLHOLE GEOLOGICAL LOG

HOLE: 135203-016

PROJECT: Alice Park Heavy Minerals

Date Started: 2 May 2013

Total Depth: 24 m

Date Completed: 2 May 2013

Drilling Method: AC Blade to 24 m

Location: MGA Zone 53

E 472657

Sample Interval: 1m

N 5992880

Drilling Contractor: McLeod Drilling

Geological Logging: Tony Mason/David Clarke

INTERVAL From – To m	LITHOLOGICAL DESCRIPTION
0 – 4	SAND, pale grey grading to pale brown, very fine grained, clayey 2-4. Interpretation - Dune
4 - 6	CLAY, red/brown and pale yellow/brown gravel, very fine sand and clay Interpretation – Karoonda Surface
6 - 8	SAND 50% very fine to medium grained, 50% CLAY, pale yellow/brown
8 - 20	CLAY, yellow/brown, minor very fine sand from 8-13m, increasing sand 12-13 SAND, clayey pale brown,very fine grained 13-16 SAND, pale brown, medium grained (Beach)16-19, with gravel 19-20.
20 – 24 TD	SAND, pale brown, medium to coarse grained gravel and clay 20-22 SAND,clayey, pale brown, very fine grained, 22-24.

DRILLHOLE GEOLOGICAL LOG

HOLE: 135203-017

PROJECT: Alice Park Heavy Minerals

Date Started: 2 May 2013

Total Depth: 24m

Date Completed: 2 May 2013

Drilling Method: AC Blade to 24m

Location: MGA Zone 53

E 472875

Sample Interval: 1m

N 5993085

Drilling Contractor: McLeod Drilling

Geological Logging: Tony Mason/David Clarke

INTERVAL From – To m	LITHOLOGICAL DESCRIPTION
0 –2	SAND grey grading to pale brown Interpretation - Dune
2 - 5	CLAY, brown Interpretation - Blanchetown Clay
5 - 17	SAND, clayey pale brown, fine to medium grained , 5-10m SAND, pale brown,fine to coarse (Beach) 10-17
17 - 18	SAND ,pale brown very fine grained,with clay and minor gravel
18 – 24 TD	SAND brown to red/brown, very fine grained, clayey

DRILLHOLE GEOLOGICAL LOG

HOLE: 135203-018

PROJECT: Alice Park Heavy Minerals

Date Started: 2 May 2013

Total Depth: 30 m

Date Completed: 2 May 2013

Drilling Method: AC Blade to 30m

Location: MGA Zone 53

E 494690

Sample Interval: 1m

N 6014150

Drilling Contractor: McLeod Drilling

Geological Logging: Tony Mason/David Clarke

INTERVAL From – To m	LITHOLOGICAL DESCRIPTION
0 – 8	SAND grey/yellow Dune 0-2, SANDY CLAY, yellow, 2-5 . SAND, pale grey/orange, 5-8m
8 - 20	CLAY brick red and pale grey 8-16 CLAY red brown and dark grey 16-20.
20 - 28	SAND, orange grading to white, 20-25, medium/coarse grained, TRACE HM 21-25;(BEACH) SAND white, coarse grained with minor granules with TRACE HM 25-27 and with 10% grey clay 27-28m
28 – 30 TD	SAND, yellow, coarse grained, WEAK TRACE HM and 29% grey clay 29-30 .

DRILLHOLE GEOLOGICAL LOG

HOLE: 135203-019

PROJECT: Alice Park Heavy Minerals

Date Started: 2 May 2013

Total Depth: 42 m

Date Completed: 2 May 2013

Drilling Method: AC Blade to 42 m

Location: MGA Zone 53

E 494830

Sample Interval: 1m

N 6014290

Drilling Contractor: McLeod Drilling

Geological Logging: Tony Mason/David Clarke

INTERVAL from...to(m)	LITHOLOGICAL DESCRIPTION
0 – 6	SAND grey/yellow, coarse grained Dune
8 - 22	CLAY grey 6-9, red/brown 9-12 m. SAND, orange, coarse grained 12-13 CLAY, grey 13-14, grey sandy 14-17, pale grey 17-19, dark grey and carbonaceous 19-22 m
22 - 27	SAND, orange grading to white coarse grained CLAY, grey, 24-25 SAND, fawn, coarse, 25-27 with WEAK TRACE HM
27 – 34	SAND, mustard grading to fawn, coarse grained with granules 27-34. SAND, white/brown, granular, unconsolidated 34-39m
39- 42 TD	SAND, very fine grained, trace of mica, WEAK TRACE HM 40-42m Interpretation- Offshore

HOLE: 135203-020

PROJECT: Alice Park Heavy Minerals
 Total Depth: 36 m
 Drilling Method: AC Blade to 36 m

Date Started: 2 May 2013
 Date Completed: 2 May 2013
 Location: MGA Zone 53
 E 494550

Sample Interval: 1m

N 6014010

Drilling Contractor: McLeod Drilling

Geological Logging: Tony Mason/David Clarke

INTERVAL from...to(m)	LITHOLOGICAL DESCRIPTION
0 – 2	SAND , pale grey
2 - 11	CLAY grey/fawn 2-8, red/brown 9-12 m. CLAY, mustard, with coarse sand
15 - 31	SAND, Cream/mustard, coarse grained 11-15 m White, medium/coarse grained, 15 – 27 m with trace granules 24-26 m TRACE HM 15-16, 17-20, 21-26, SAND, coarse grained, 27-31; orange 27-29m, pink 29-31m TRACE HM 27-31.
31- 36 mTD	SAND, white,very fine grained, WEAK TRACE HM 32-33 m Interpretation- Offshore

HOLE: 135203-021

PROJECT: Alice Park Heavy Minerals

Date Started: 2 May 2013

Total Depth: 30 m

Date Completed: 2 May 2013

Drilling Method: AC Blade to 30 m

Location: MGA Zone 53

E 493450

Sample Interval: 1m

N 5998440

Drilling Contractor: McLeod Drilling

Geological Logging: Tony Mason/David Clarke

INTERVAL from...to(m)	LITHOLOGICAL DESCRIPTION
0 – 1	SAND , pale grey
1 - 13	CLAY grey 1-9m CLAY,grey and orange, with coarse sand 9-10m CLAY, fawn,50/50 with fine sand
13 – 30 TD	SAND, Fawn, fine grained 13-20 m Very fine grained, 20-26 m, white & clean 20-21, fawn 21-26m Orange, fine grained, 26-30 m TRACE HM 20-30 m

HOLE: 135203-022

PROJECT: Alice Park Heavy Minerals

Date Started: 3 May 2013

Total Depth: 30 m

Date Completed: 3 May 2013

Drilling Method: AC Blade to 30 m

Location: MGA Zone 53
E 493590

Sample Interval: 1m

N 5998580

Drilling Contractor: McLeod Drilling

Geological Logging: Tony Mason/David Clarke

INTERVAL from...to(m)	LITHOLOGICAL DESCRIPTION
0 – 2	SAND , pale grey
2 - 16	CLAY grey 2-10 m CLAY, grey with dark orange coarse sand 10-11 m CLAY, orange, sandy 11-16 m
16-24	SAND, White, medium grained 16-18 m Orange, medium grained, 18-20 m Yellow, coarse grained, 20-21 m Yellow, medium grained, 21-24 TRACE HM 16-18, 21-24,
24 – 25	CLAY, grey, sandy
25- 30 m TD	SAND, fine grained, clayey; dark orange, 27-30 m WEAK TRACE HM 25-27 m

--	--

HOLE: 135203-023

PROJECT: Alice Park Heavy Minerals

Date Started: 2 May 2013

Total Depth: 21 m

Date Completed: 2 May 2013

Drilling Method: AC Blade to 21 m

Location: MGA Zone 53

E 493310

Sample Interval: 1m

N 5998200

Drilling Contractor: McLeod Drilling

Geological Logging: Tony Mason/David Clarke

INTERVAL from...to(m)	LITHOLOGICAL DESCRIPTION
0 – 1	SAND , pale grey
1 - 13	CLAY grey, sandy 1-5; red/grey 5-6 m; brick red & sandy 6-10; orange & sandy 10-13 m.
13 – 21 TD	SAND, Clean, coarse grained 13-14 m Silty & fine grained, 14-18 m, white & clean very fine grained 18-21 m TRACE HM 14 21 m

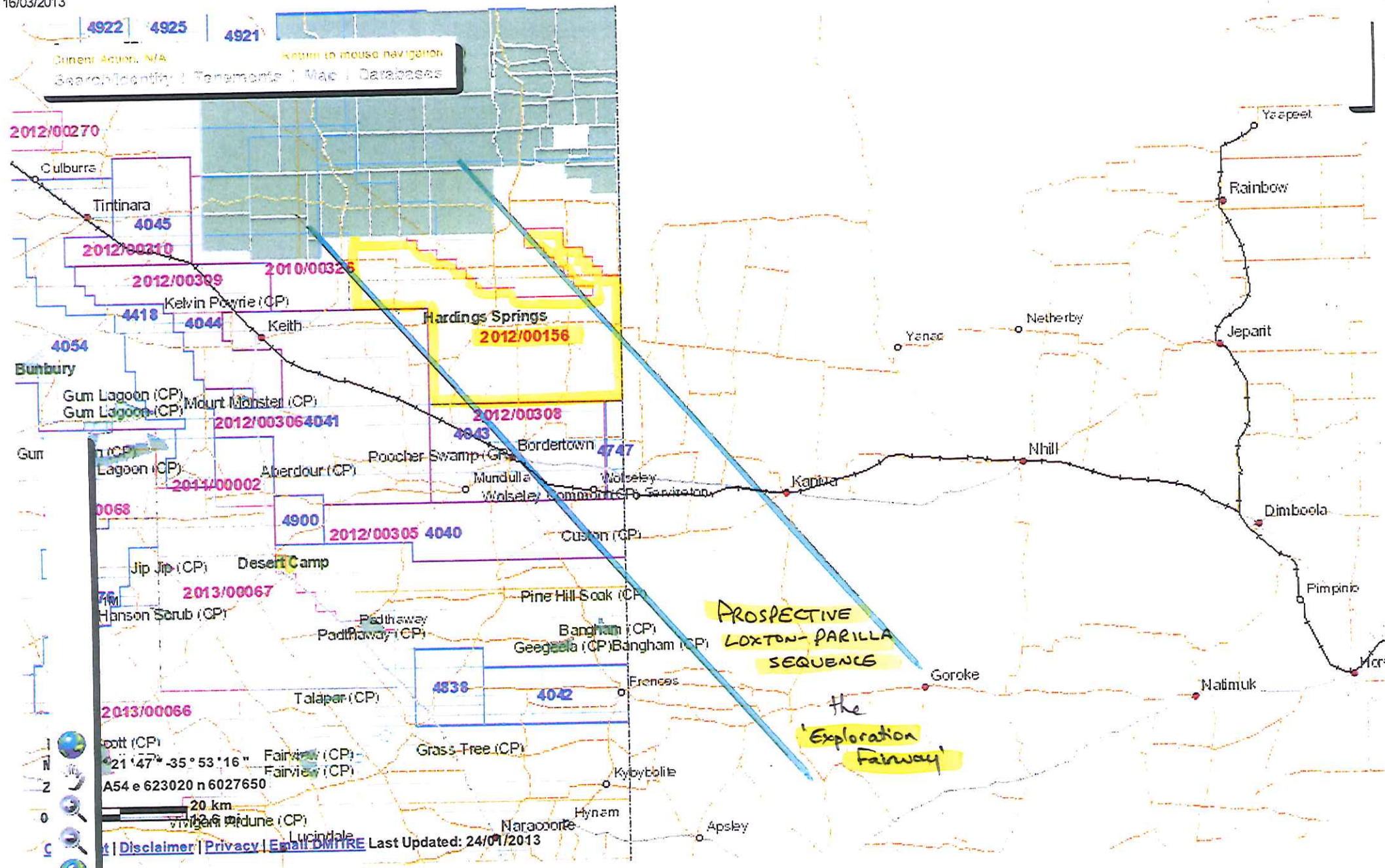
APPENDIX 2 EXPLORATION EXPENDITURE

EL 5203

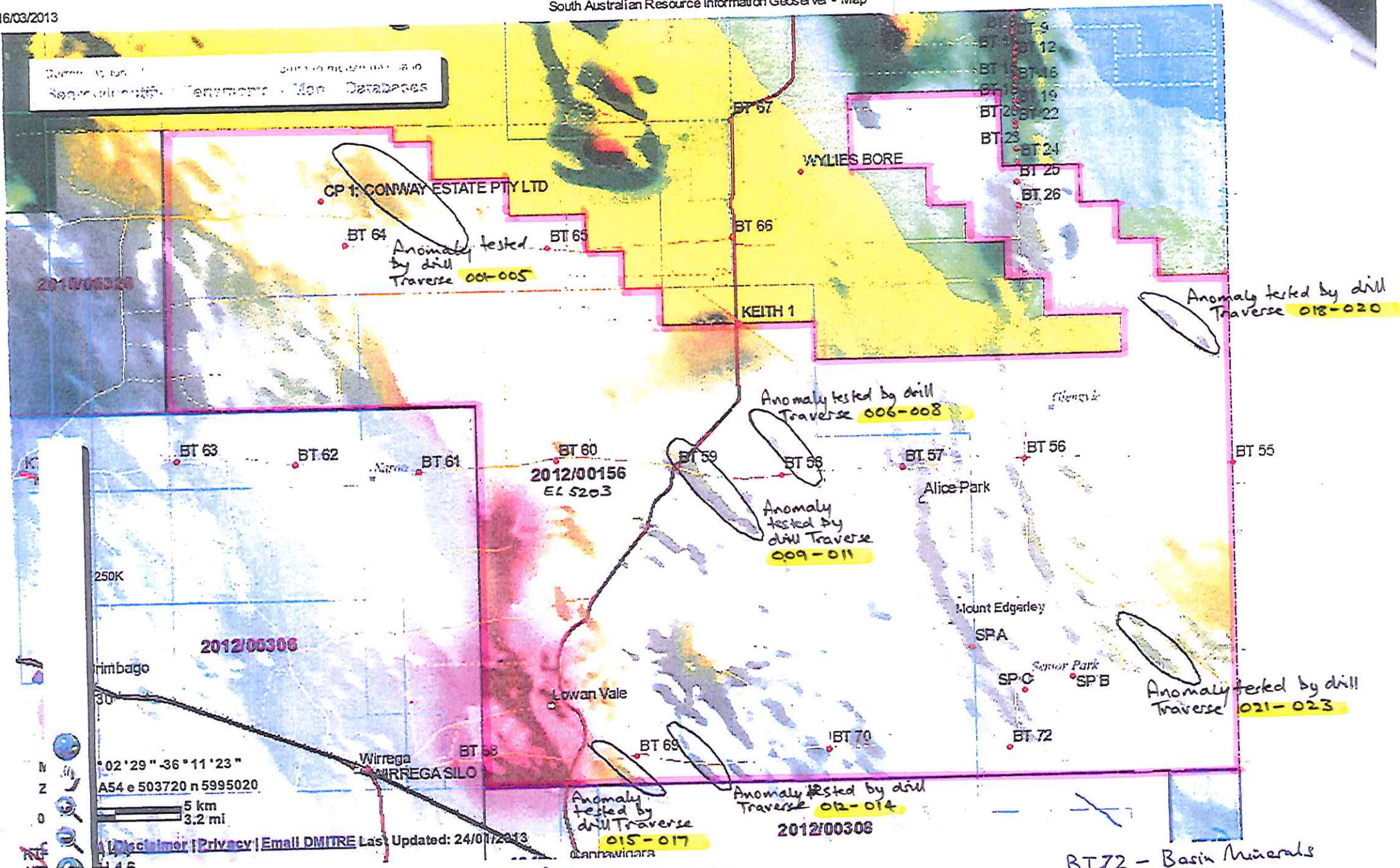
for the period 4 April 2013 to Surrender

Drilling Programme	26,613
Geophysical costs	5,202
Exploration Management and ADW and Marathon Geological costs	47,250
Exploration Administration	18,290
Total	\$ 97,355

APPENDIX 3 DRILLHOLE LOCATION PLANS

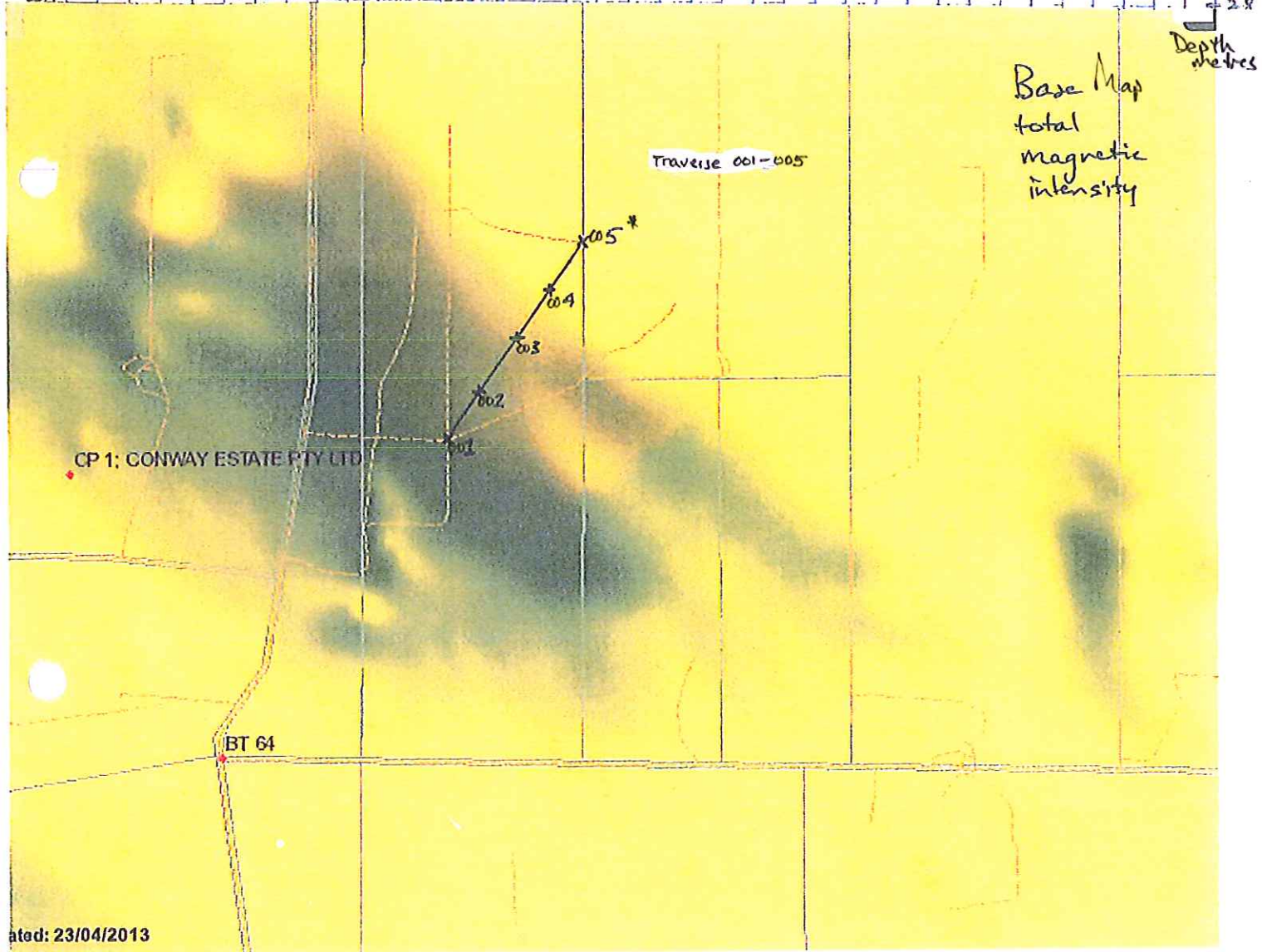
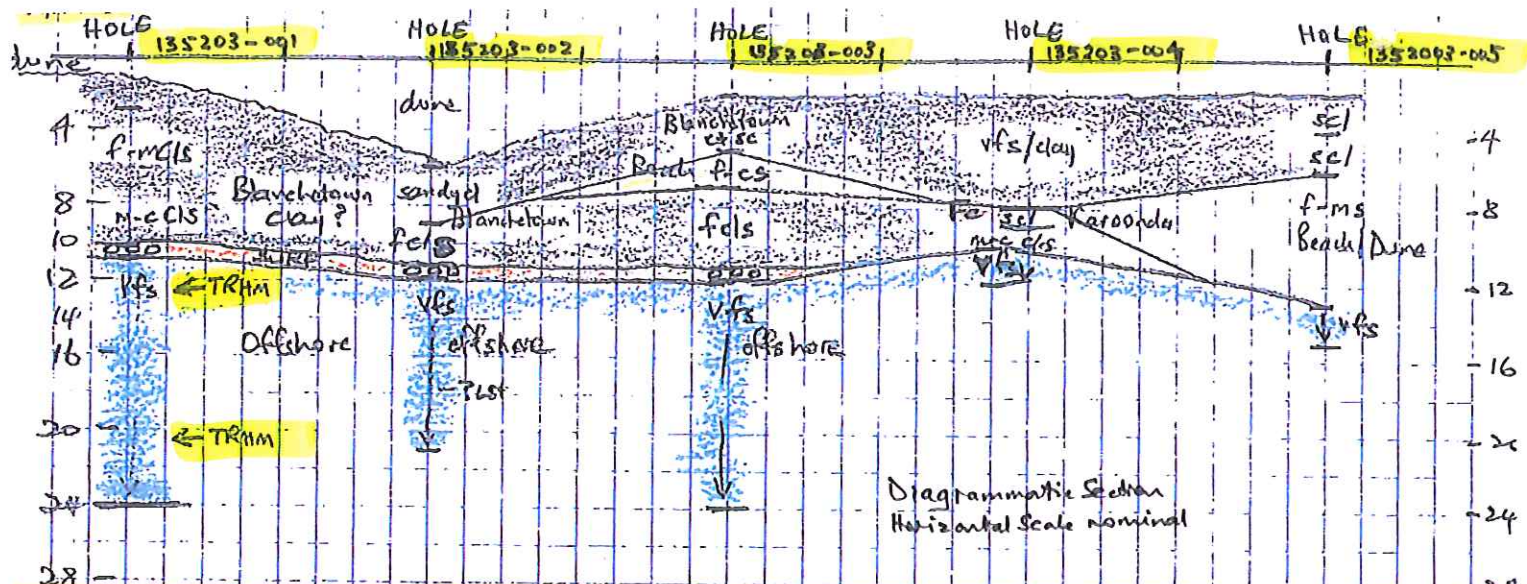


16/03/2013



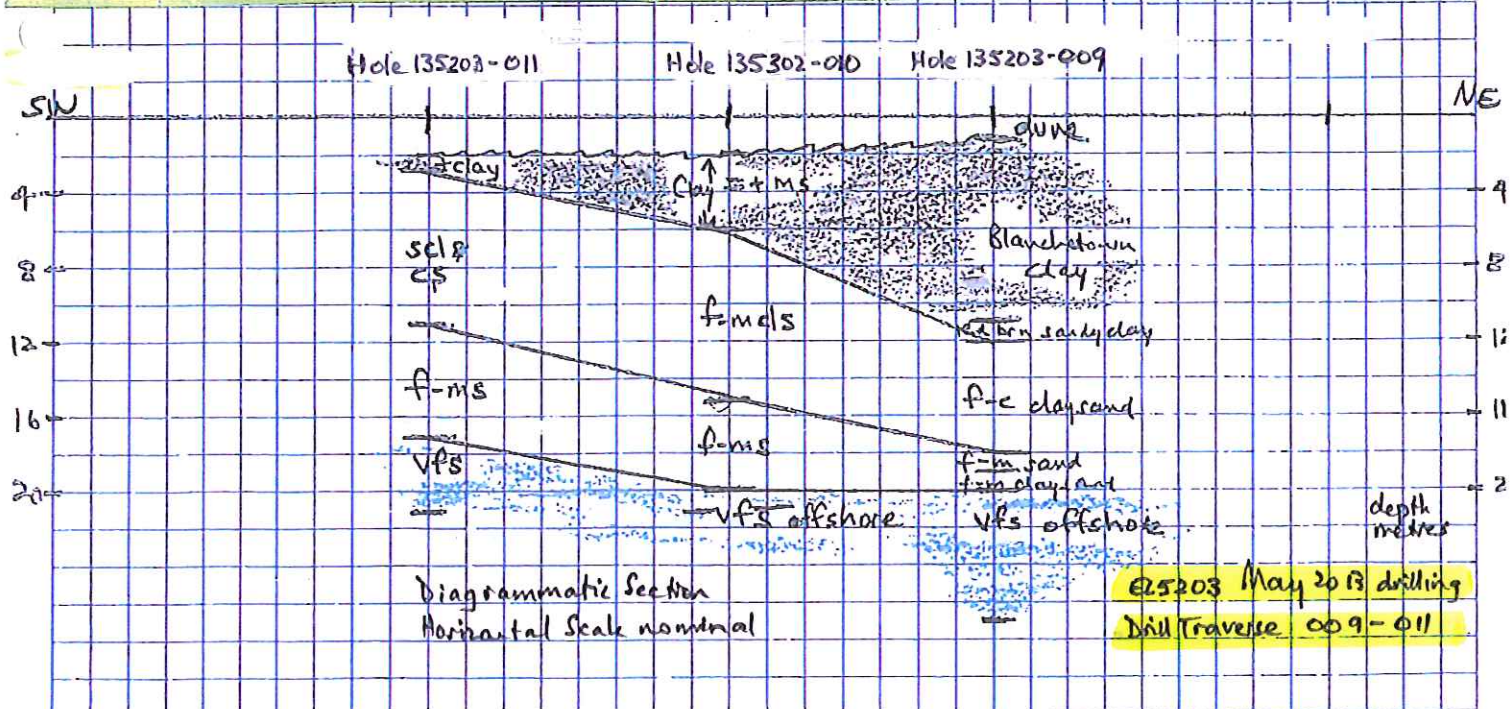
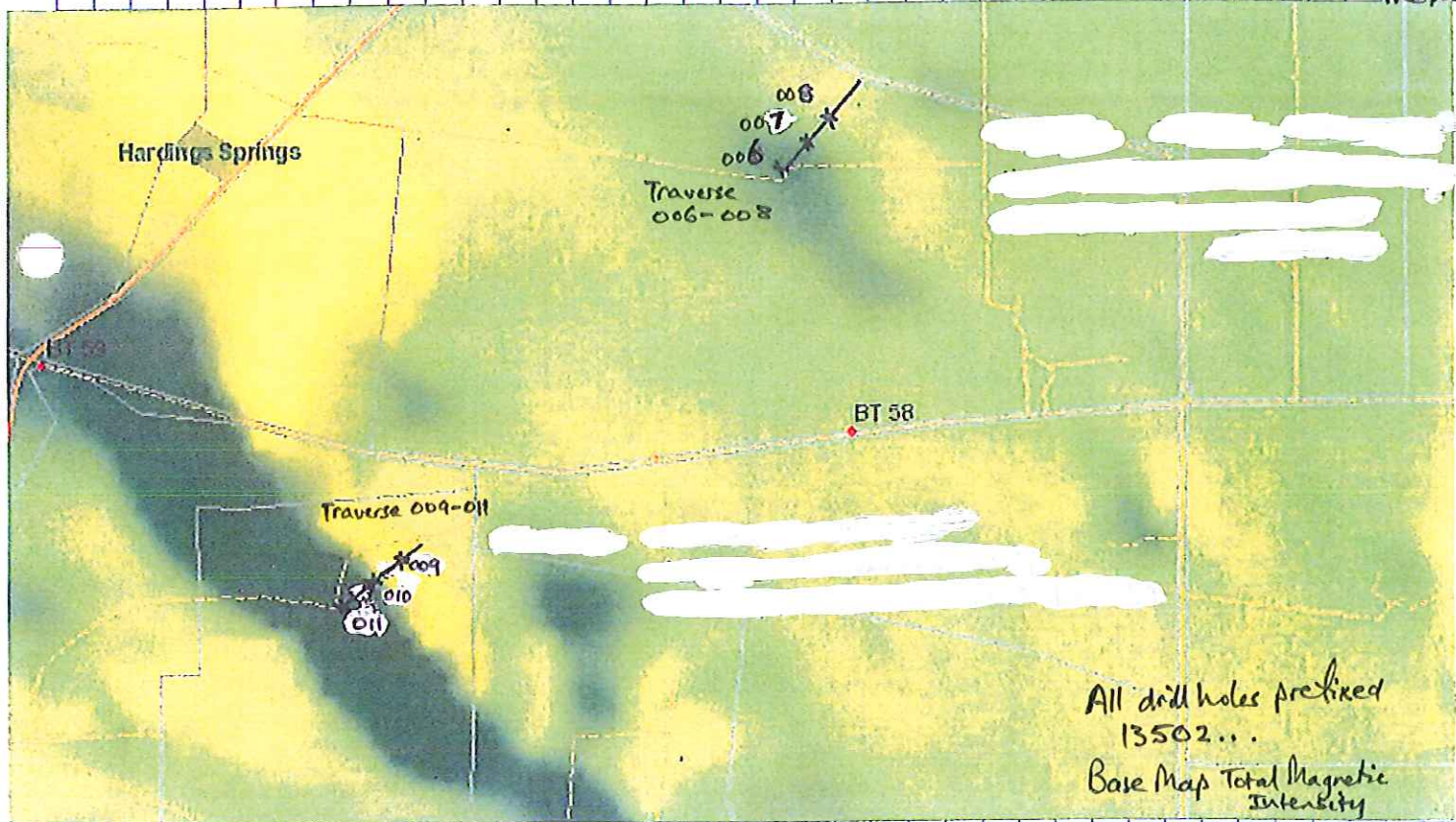
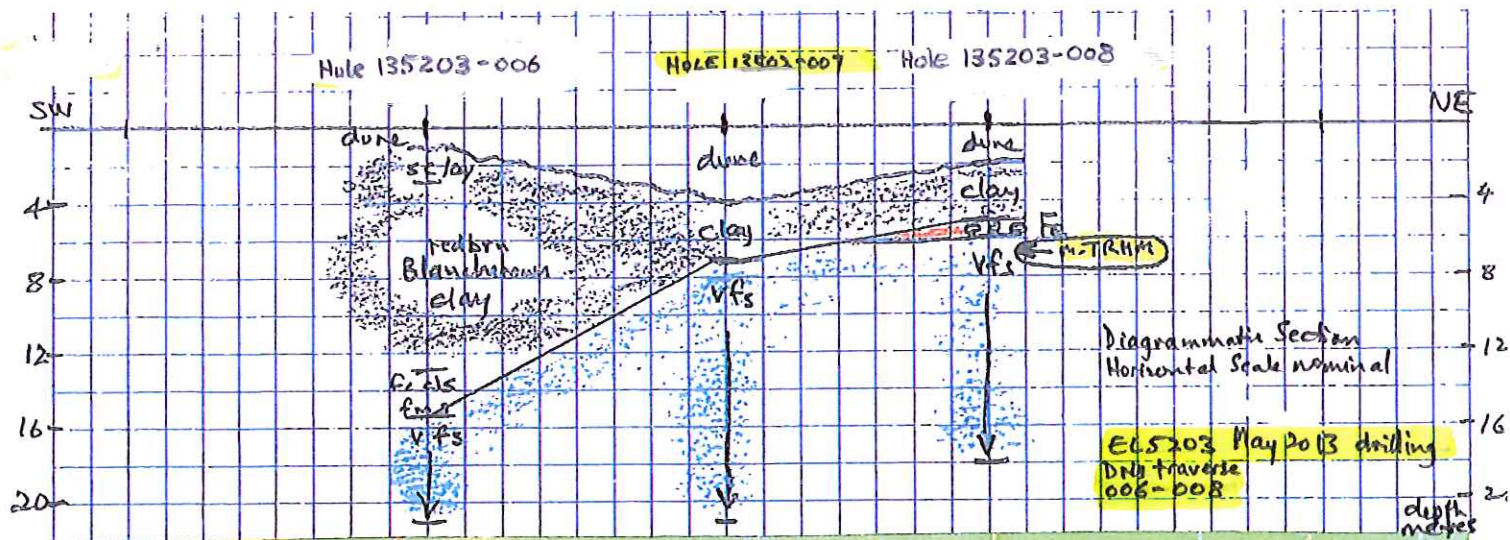
ELA 2012/156, Alice Park - EL 5203
Plan of Total Magnetic Intensity showing anomalies tested
by aircore drilling in May 2013

BT 72 - Basin Minerals
air core drill hole



ated: 23/04/2013

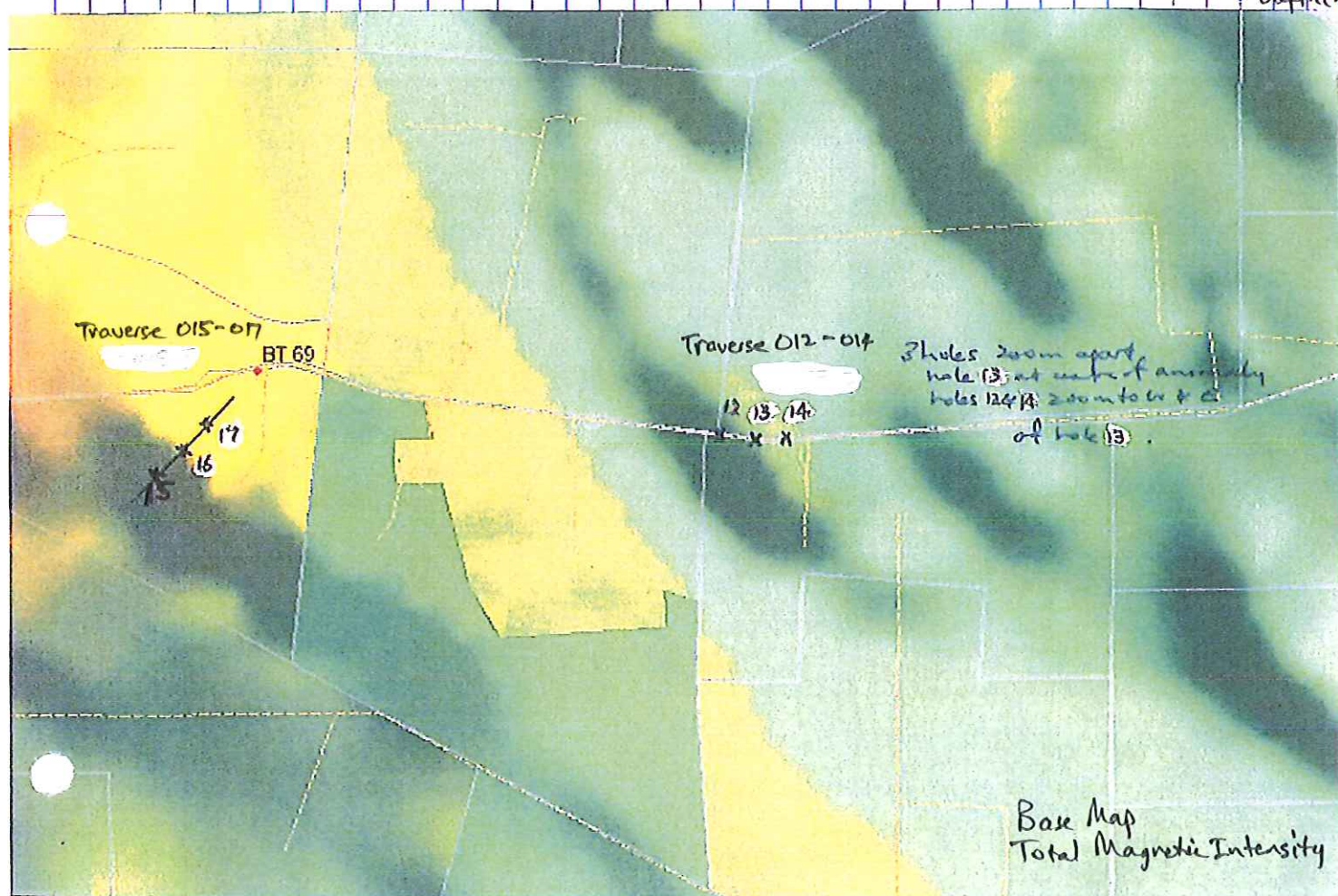
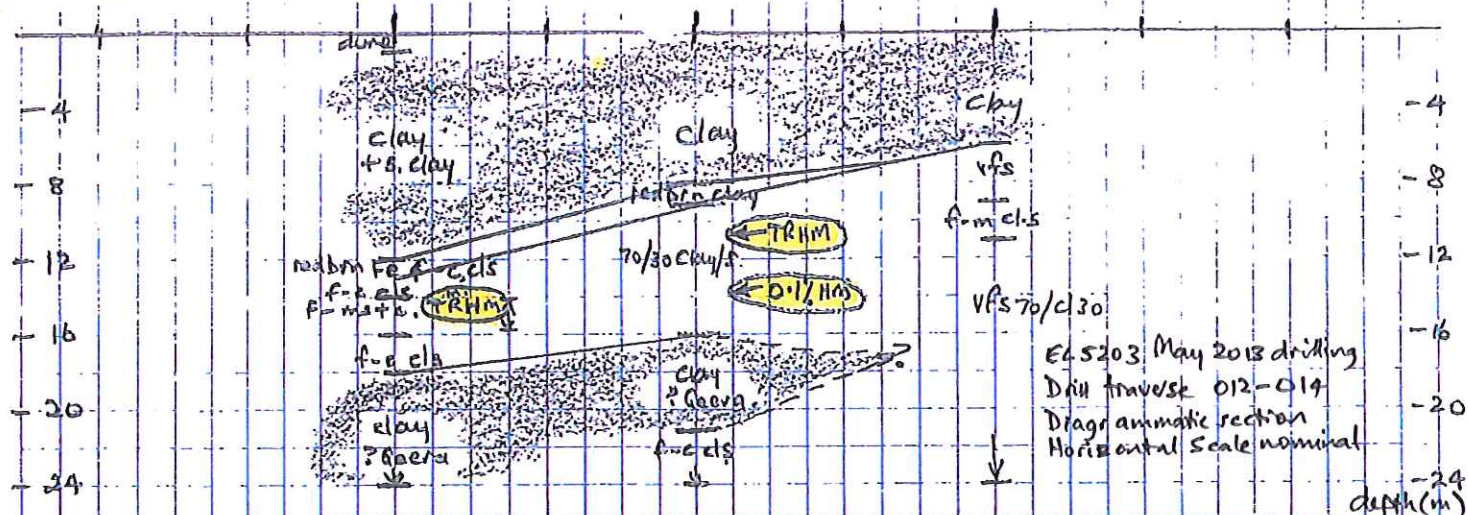
EL 5203 May 2013 drill programme
 DRILL TRAVERSE 001-005
 * All drill holes prefixed 135203....



HOLE 135203-012

HOLE 135203-013

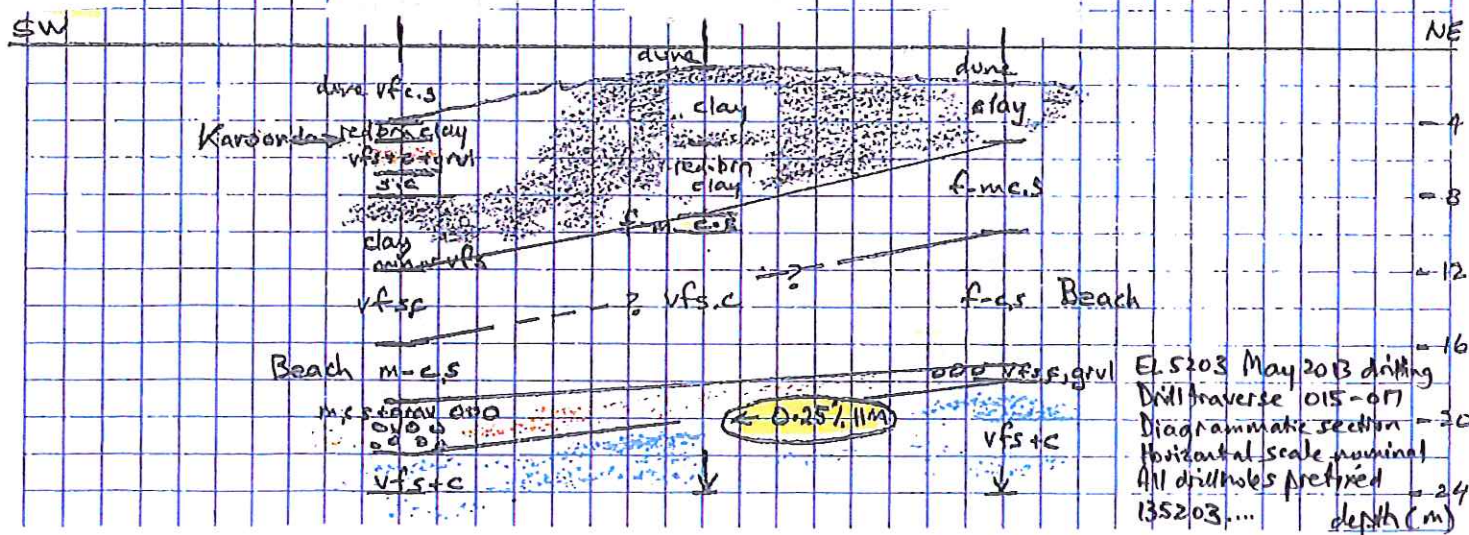
HOLE 135203-014

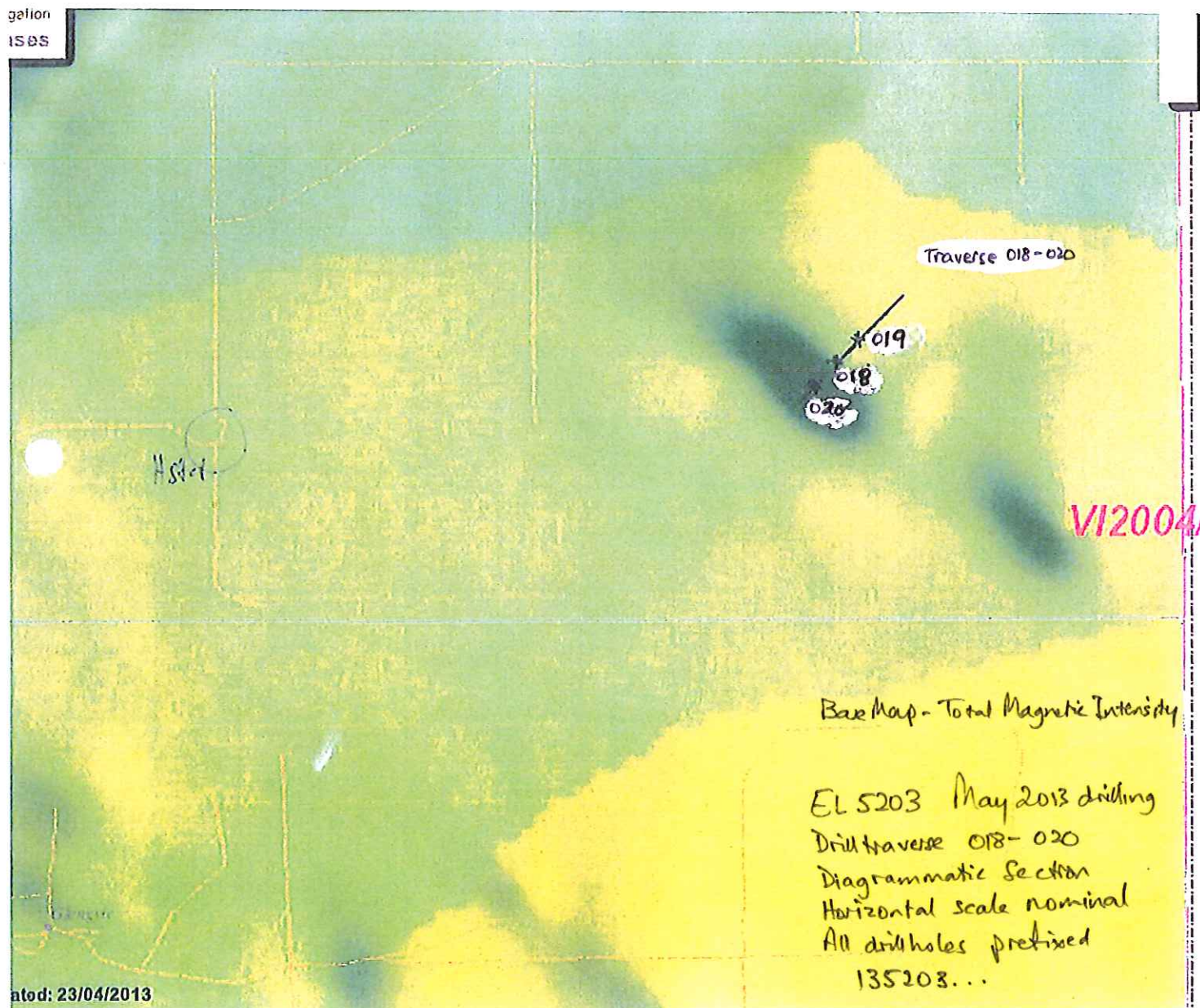
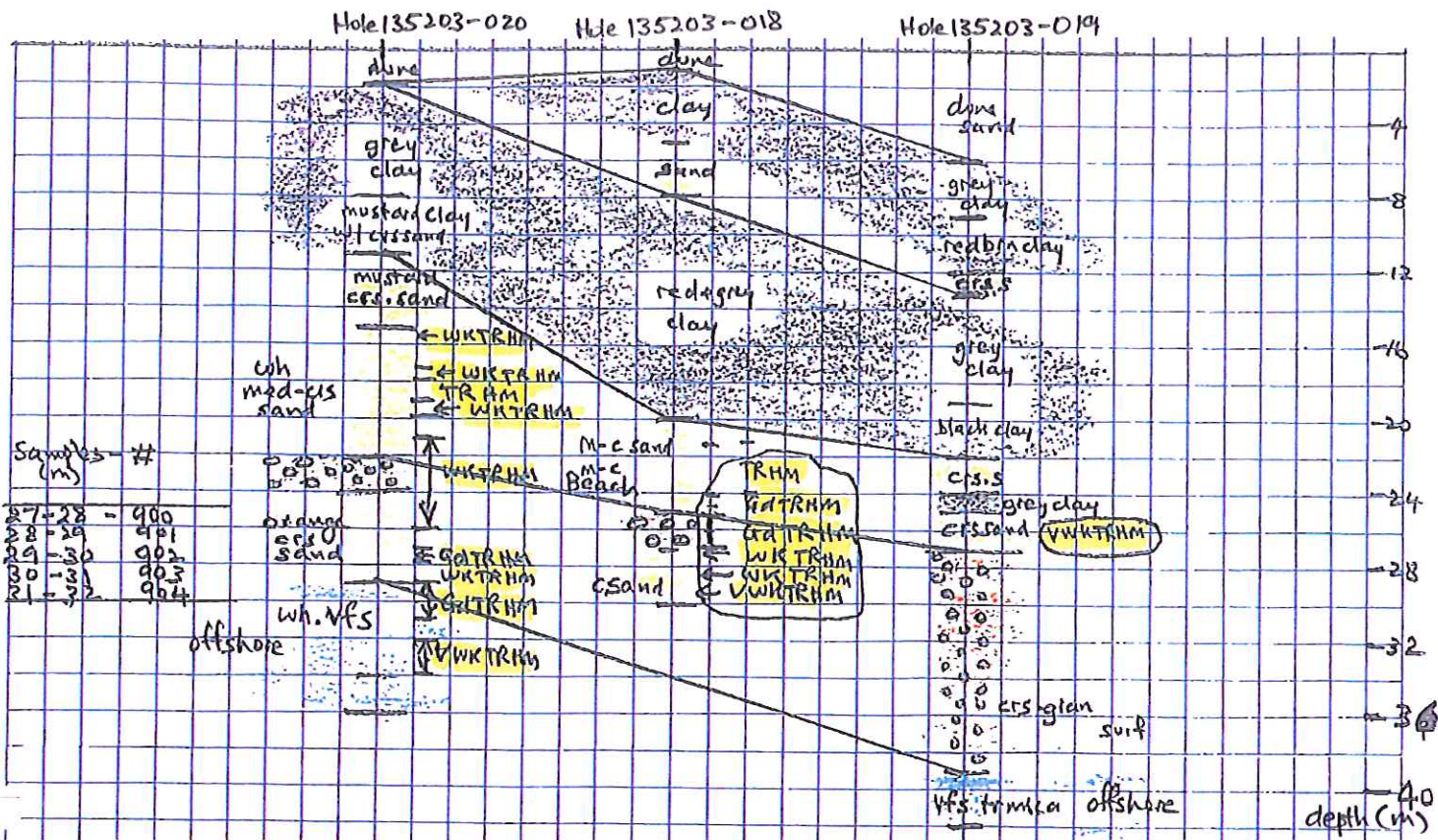


Hole 135203-015

Hole 135203-016

Hole 135203-017





Service outages may occur (Wednesday 24th of April), please clear your web browser cache and reload SARIG.

Traverse 021-023

ANALYST: [illegible]

021

022

023

SPB

Base Map - Total Magnetic Intensity

EL5203 May 2013 drilling
 Drill traverse 021-023
 Diagrammatic Section
 Horizontal scale nominal
 All drillholes prefixed 135203....

