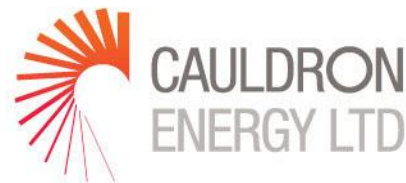


# ASX Announcement

Quarterly Report for Period Ended 31 December 2014



30 January 2015

## QUARTERLY REPORT – 31 DECEMBER 2014

Please find attached the Quarterly Activities Report and Appendix 5B for the period ended 31 December 2014.

Yours faithfully,

**Brett Smith**  
**Executive Director**  
**Cauldron Energy Limited**

### Cauldron Energy Ltd

**ABN** 22 102 912 783

**ASX Code** CXU

247,121,205 shares

60,150,000 unlisted options

### Board of Directors

Tony Sage  
Executive Chairman

Brett Smith  
Executive Director

Qiu Derong  
Non-Executive Director

Judy Li  
Non-Executive Director

### Management

Simon Youds  
Operations Manager

Catherine Grant  
Company Secretary

## **HIGHLIGHTS**

### **CORPORATE**

- Board changes
- Annual General Meeting held 27 November 2014
- A\$2.53 million in funding received under Share Placement Agreement
- Legal proceedings

### **EXPLORATION & PROJECTS**

- Yanrey Uranium Project
  - Updated Mineral Resource (JORC 2012) at Bennet Well using the results obtained from eight drill holes resulted in an 18% increase in total contained mass of uranium metal
  - Worley Parson's Bennet Well Approvals Pathway Study as a preliminary to a scoping study
  - Work area clearance heritage survey for the Bennet Well drilling program
  - Construction of an accommodation camp at Bennet Well to facilitate year-round exploration activity in the district
  - Scout exploration and resource delineation drilling campaign of 73 holes for 6,319 m drilled with following breakdown:
    - Mud rotary: 67 holes for 5,785 m
    - Diamond core: 6 holes for 534 m
  - Most significant results returned included:
    - BW0010: 2.70 m @ 1344ppm eU<sub>3</sub>O<sub>8</sub> from 41.35 m
    - BW0013: 1.40 m @ 1520 ppm eU<sub>3</sub>O<sub>8</sub> from 54.70 m
    - BW0021: 2.15 m @ 1082 ppm eU<sub>3</sub>O<sub>8</sub> from 55.95 m
    - BW0035: 2.95 m @ 2050 ppm eU<sub>3</sub>O<sub>8</sub> from 57.60 m
    - BW0037: 2.65 m @ 1028 ppm eU<sub>3</sub>O<sub>8</sub> from 40.05 m
    - BW0056: 2.95 m @ 994 ppm eU<sub>3</sub>O<sub>8</sub> from 58.80 m
    - BW0061: 2.45 m @ 1264 ppm eU<sub>3</sub>O<sub>8</sub> from 61.15 m
    - BW0072: 1.20 m @ 1134 ppm eU<sub>3</sub>O<sub>8</sub> from 57.45 m
  - Re-interpretation of existing geophysics identifies additional targets for drilling
  - Additional geophysical surveys scheduled for 2015
- Marree Base Metals Project
  - Technical reappraisal of base metal potential at Maree completed by in-house geologists
  - Geophysical surveys proposed in 2015 to incorporate the structural architecture into the developing systems model of mineralisation at Ooloo and Mount Freeling prospects

- Marree Uranium Project
    - Marree Joint Venture meeting held in December 2014 to review Uranium potential in South Australia
  - Argentina
    - Updates of Environmental and Social Reports at Rio Colorado have been initiated by the University of Catamarca. This represents the start of the process for obtaining drill access
    - Preliminary technical appraisal in an exploration consultant review highlights both the Rio Colorado and Las Marias projects as highly prospective for the occurrence of uranium and polymetallic mineralisation
    - Final technical review is awaited and will be used to develop the exploration strategy and exploration plan
- 

Cauldron Energy Ltd (**Cauldron** or the **Company**) is pleased to present its Quarterly Activities Report for the period ended 31 December 2014.

## **CORPORATE ACTIVITIES**

### ***Board Changes***

The following changes to the board of directors of the Company were announced during the December 2014 quarter:

- Non-Executive Director Dr Amy Wang resigned effective 1 October 2014;
- Non-Executive Director Mr Anson Huang resigned effective 17 December 2014; and
- Ms Judy Li was appointed as Non-Executive Director of the Company effective 17 December 2014.

### ***General Meeting***

Cauldron held its Annual General Meeting on 27 November 2014. The Company was pleased to report all resolutions put to the meeting were passed by a show of hands.

### ***Funding***

As previously announced, the Company has entered into a series of placement agreements (**Placement Agreements**) with a range of Chinese investors to issue a total of 127,118,756 Shares (**Placement Shares**) at an issue price of \$0.118 per share (**Issue Price**) to raise a total of A\$15 million (**Placement Funds**) (before capital raising costs) (**Placements**).

The Placement Shares are to be issued (and the Placement Funds received) in various tranches, with the final tranche due to be received in December 2015.

In accordance with the Placement Agreements, the Company was due to receive the following Placement Funds during the December 2014 quarter:

- A\$2 million from Beijing Joseph Investment Co. Ltd / Joseph Investment International Co. Ltd (**Joseph Investment**) in two equal tranches of A\$1 million by 2 October 2014 and 1 December 2014 respectively. To date, these funds have not been received by the Company;
- A\$1 million from Guangzhou City Guangrong Investment Management Co Ltd (**Guangrong City**) on 3 November 2014. To date, these funds have not been received by the Company;
- A\$0.3 million from Guangzhou Joseph Investment Co Ltd (**Guangzhou Joseph**) by 1 December 2014. To date, these funds have not been received by the Company; and
- A\$3 million from Starry World Investment Ltd (**Starry World**) by 31 December 2014. A\$2.53 million was received by Cauldron from Starry World during the December 2014 quarter, and a total of 21,440,678 fully paid issued shares were issued in respect of the placement funds received. The remaining A\$0.47 million owing by Starry World to the Company is expected to be received shortly.

In addition to the above, Placement Funds due from investors falling due in the future include:

- A\$2,000,000 due from Cauldron's Non-Executive Director Mr Qiu Derong by 28 February 2015; and
- A further A\$1,700,000 due from Guangzhou Joseph by 1 December 2015.

The Company intends to take action to enforce its rights under the Placement Agreements to receive the Placement Funds.

### ***Legal Proceedings***

On 14 October 2014, the securities of Cauldron were placed in trading halt at the request of the Company, pending an announcement to be made to the market in relation to the outcome of a court hearing scheduled at the Supreme Court of New South Wales.

The Company announced that on the afternoon of 15 October 2014, the Supreme Court of New South Wales discharged injunctive ex parte orders obtained by Joseph Investment and Guangzhou City without notice to Cauldron on Sunday 12 October 2014.

The legal proceedings followed on from a written demand Cauldron made to Joseph Investment on 3 October 2014 to pay A\$1 million for the subscription of shares due to the Company on 2 October 2014 pursuant to a Placement Agreement dated 6 June 2014.

On 11 December 2014, the Supreme Court of New South Wales (Equity Division) made orders in favour of Cauldron that:

- The legal proceedings commenced by the Plaintiffs against Cauldron (the **Proceedings**) be immediately transferred to the Supreme Court of Western Australia; and
- The Plaintiffs pay Cauldron's costs of the application to transfer the Proceedings.

Cauldron remains of the view that these legal proceedings are without merit and will be vigorously defended in the Supreme Court of Western Australia.

### ***Cash at 31 December 2014***

Cash available to the Company at the end of the December 2014 quarter was A\$3.1 million.

### ***Issue of shares***

As approved by shareholders at the General Meeting on 30 September 2014 (**General Meeting**), the Company issued the following during the quarter:

- 21,440,678 fully paid shares at \$0.118 per share to raise A\$2.53 million (before capital raising costs) (part of the Placement Shares).

### ***Issue of options***

During the quarter:

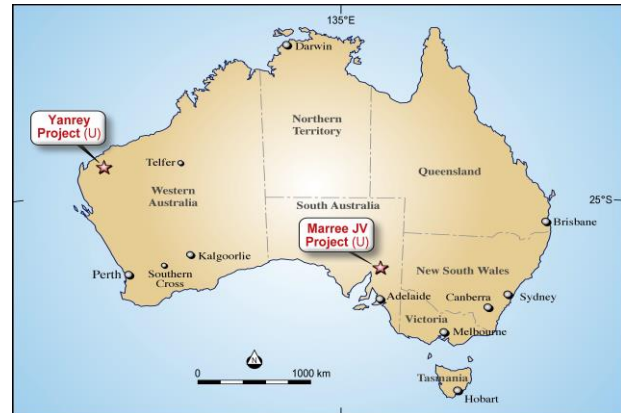
- 4,400,000 unlisted director options exercisable at \$0.138 each on or before 31 December 2015 were issued on 1 October 2014 (**Director Options**), and vest upon:
  - the Company achieving a Mineral Resource (JORC 2012) at the Company's Yanrey Project in Western Australia containing more than 30 million lbs of Uranium; or
  - the commencement of drilling by the Company at the Rio Colorado project in Argentina.
- 32,000,000 unlisted investor options were issued on 20 October 2014 (**Placement Options**), of which:
  - half of the Placement Options vest immediately exercisable at \$0.118 each on or before 31 December 2015 (the **Upfront Options**); and
  - the remaining half of the Placement Options (**Vesting Options**) vest on 1 January 2016 provided that the holder's Upfront Options are not exercised (in the event that only a portion of the holders Upfront Options are exercised by the holder, the number of Vesting Options that actually vest will be equal to the number of unexercised Upfront Options) exercisable at \$0.138 each on or before 31 December 2016.
- 14,000,000 unlisted options exercisable at \$0.138 each on or before 31 December 2015 were issued on 19 December 2014 to Australian employees and consultants (**Australian Options**), and vest on same terms as the Director Options detailed above.
- 1,450,000 unlisted options exercisable at \$0.138 each on or before 31 December 2015 were issued on 19 December 2014 to Argentinian employees and consultants (**Argentinian Options**), and vest upon:
  - the commencement of drilling by the Company at the Rio Colorado project in Argentina.

Shareholder approval for the abovementioned options was received at the Company's General Meeting.

## EXPLORATION ACTIVITIES: AUSTRALIA

In Australia, Cauldron has two project areas (Figure 1) covering more than 6,000 km<sup>2</sup> in two known uranium provinces in South Australia and Western Australia. Projects include:

- **Yanrey Project (Yanrey) and Uaroo Joint Venture** in Western Australia. Yanrey comprises 13 granted exploration licences (2,422 km<sup>2</sup>) and 7 applications for exploration licences (1,120 km<sup>2</sup>). Uaroo Joint Venture comprises 2 granted exploration licences (114km<sup>2</sup>). Yanrey is prospective for large sedimentary hosted uranium deposits.
- **Marree Joint Venture** in South Australia comprising five granted exploration licences (2,794 km<sup>2</sup>) prospective for sedimentary-hosted uranium deposits as well as base metal mineralisation.



**Figure 1:** Major Project Locations in Australia

## BENNET WELL (YANREY REGION)

The mineralisation at Bennet Well is a shallow accumulation of uranium hosted in unconsolidated sands close to surface (less than 100 m downhole depth) in Cretaceous sedimentary units of the Ashburton Embayment.

The Bennet Well deposit is comprised of three spatially separate deposits; namely Bennet Well East, Bennet Well Central, and Bennet Well South (refer to Figure 2).

During the quarter, Ravensgate Mining Industry Consultants updated the Mineral Resource (JORC 2012) estimate using a new geological-stratigraphic model, which followed from the completion of eight diamond core holes (refer ASX announcement 22 September 2014). This resource modelling utilised a comprehensive revision of the stratigraphic and lithological setting model completed in-house by Cauldron geologists.

The revised Mineral Resource (JORC 2012) estimate is:

- **Indicated Resource: 6.2Mlb eU<sub>3</sub>O<sub>8</sub> (9.4 Mt) at 300 ppm eU<sub>3</sub>O<sub>8</sub> (DisEq); using a 150 ppm eU<sub>3</sub>O<sub>8</sub> cutoff**
- **Inferred Resource: 12.2Mlb eU<sub>3</sub>O<sub>8</sub> (23.0 Mt) at 240 ppm eU<sub>3</sub>O<sub>8</sub> (DisEq); using a 150 ppm eU<sub>3</sub>O<sub>8</sub> cutoff**
- **Total Resource: 18.6Mlb eU<sub>3</sub>O<sub>8</sub> (32.4 Mt) at 260 ppm eU<sub>3</sub>O<sub>8</sub> (DisEq); using a 150 ppm eU<sub>3</sub>O<sub>8</sub> cutoff**

The updated Mineral Resource estimate of 32.4 Mt at 260 ppm eU<sub>3</sub>O<sub>8</sub> (DisEq) or 18.6Mlb contained eU<sub>3</sub>O<sub>8</sub> compares to the previous Inferred Resource (JORC 2004) estimate of 26.7 Mt at 265 ppm eU<sub>3</sub>O<sub>8</sub> (DisEq) or 15.7Mlb contained eU<sub>3</sub>O<sub>8</sub>. In addition the updated Mineral Resource (JORC 2012) improves the resource classification, now with 29% of the deposit in the Indicated Resource category.

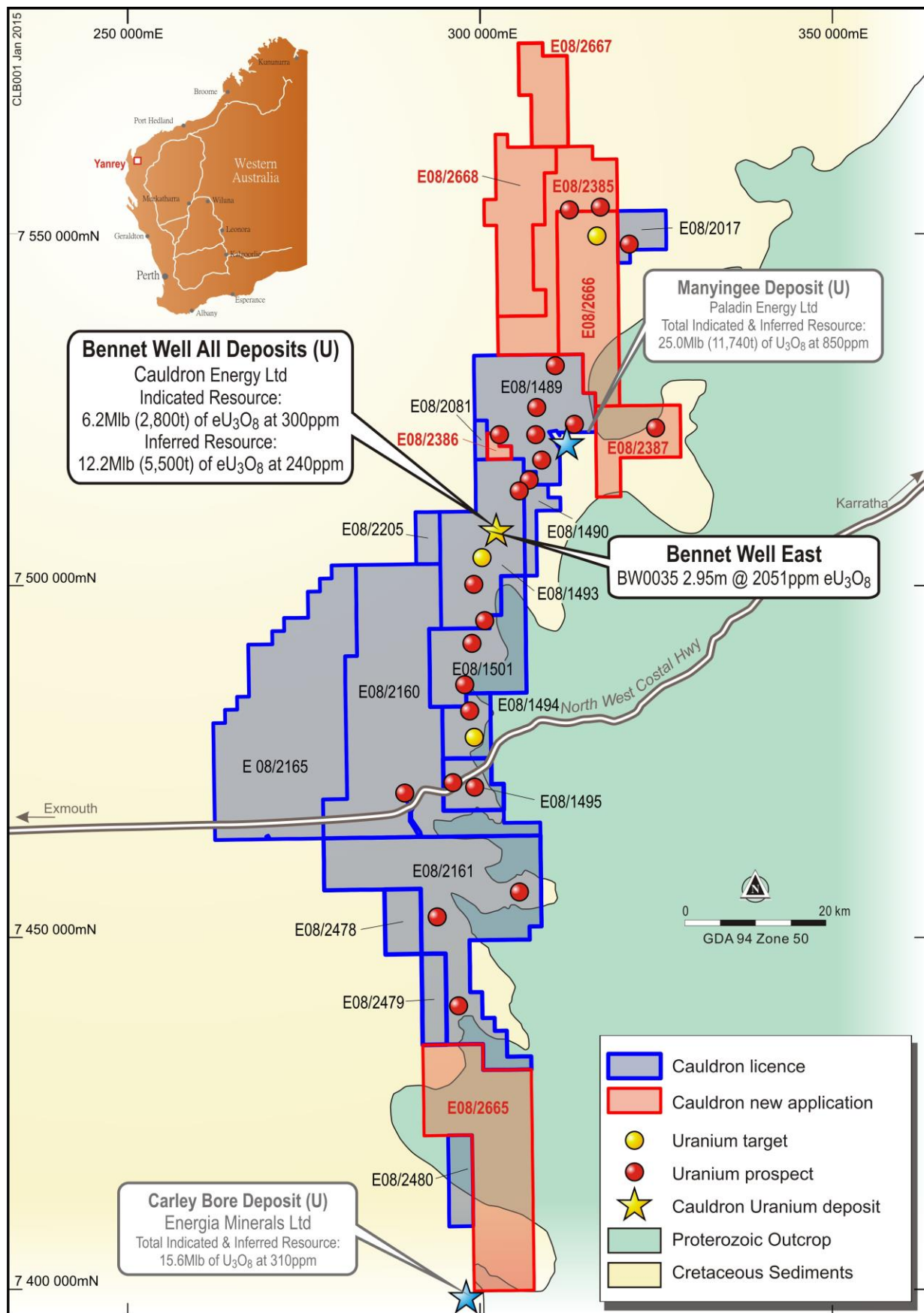
## Bennet Well Uranium Deposits Mineral Resource Estimate

The Bennet Well deposit is comprised of three spatially separate deposits; namely Bennet Well East, Bennet Well Central, and Bennet Well South (Figures 4-6). The plan and sectional views of the sedimentary geological units were modelled from a deposit-wide reinterpretation of all historic data, using the newly obtained diamond core as a reference. These units were digitised into a set of wireframes used to constrain the generation of the grade block model. Figure 3 illustrates the grade shells as determined by the block model.

The Mineral Resource estimate of each deposit, with their classification is shown in the table below. Variances in Mlbs eU<sub>3</sub>O<sub>8</sub> are a result of rounding.

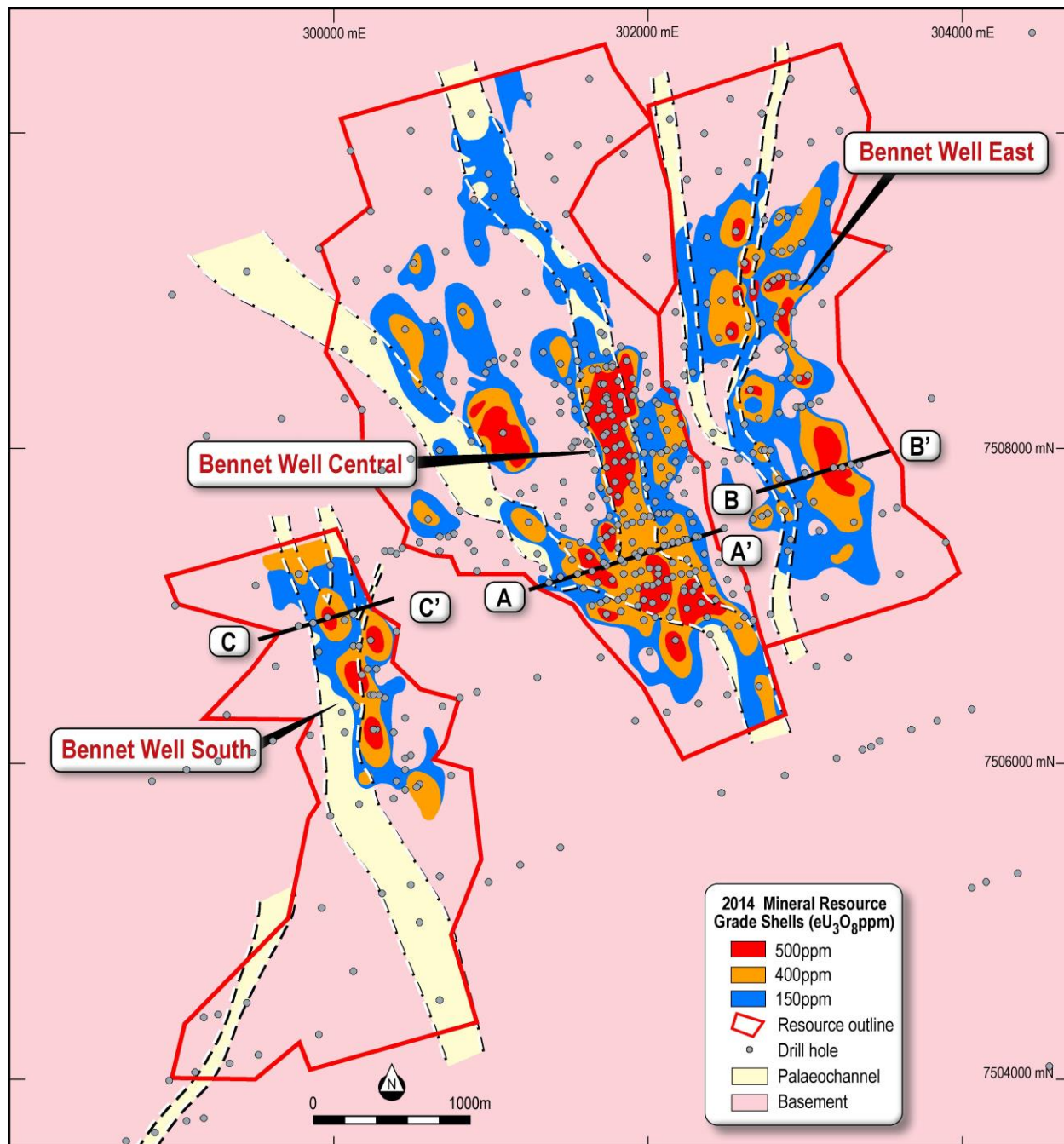
**Table 1:** Bennet Well resource summary (Ravensgate Mineral Consultants 2014)

Deposit	Resource Category	Tonnes (kt)	Grade (ppm eU <sub>3</sub> O <sub>8</sub> )	Tonnes eU <sub>3</sub> O <sub>8</sub> (t)	Pounds eU <sub>3</sub> O <sub>8</sub> ('000 lbs)
Bennet Well East	Measured	-	-	-	-
	Indicated	678,333	325	220,929	486,044
	Inferred	7,098,189	252	1,788,744	3,935,236
	<b>TOTAL</b>	<b>7,776,522</b>	<b>258</b>	<b>2,006,343</b>	<b>4,413,954</b>
Bennet Well Central	Measured	-	-	-	-
	Indicated	8,716,604	297	2,586,331	5,689,927
	Inferred	9,343,210	214	2,001,218	4,402,681
	<b>TOTAL</b>	<b>18,059,814</b>	<b>254</b>	<b>4,587,193</b>	<b>10,091,824</b>
Bennet Well South	Measured	-	-	-	-
	Indicated	-	-	-	-
	Inferred	6,602,025	258	1,703,890	3,748,558
	<b>TOTAL</b>	<b>6,602,025</b>	<b>258</b>	<b>1,703,890</b>	<b>3,748,558</b>
Total Bennet Well	Measured	-	-	-	-
	Indicated	9,394,937	299	2,807,207	6,175,856
	Inferred	23,043,424	239	5,495,857	12,090,885
	<b>TOTAL</b>	<b>32,438,361</b>	<b>256</b>	<b>8,304,220</b>	<b>18,269,285</b>

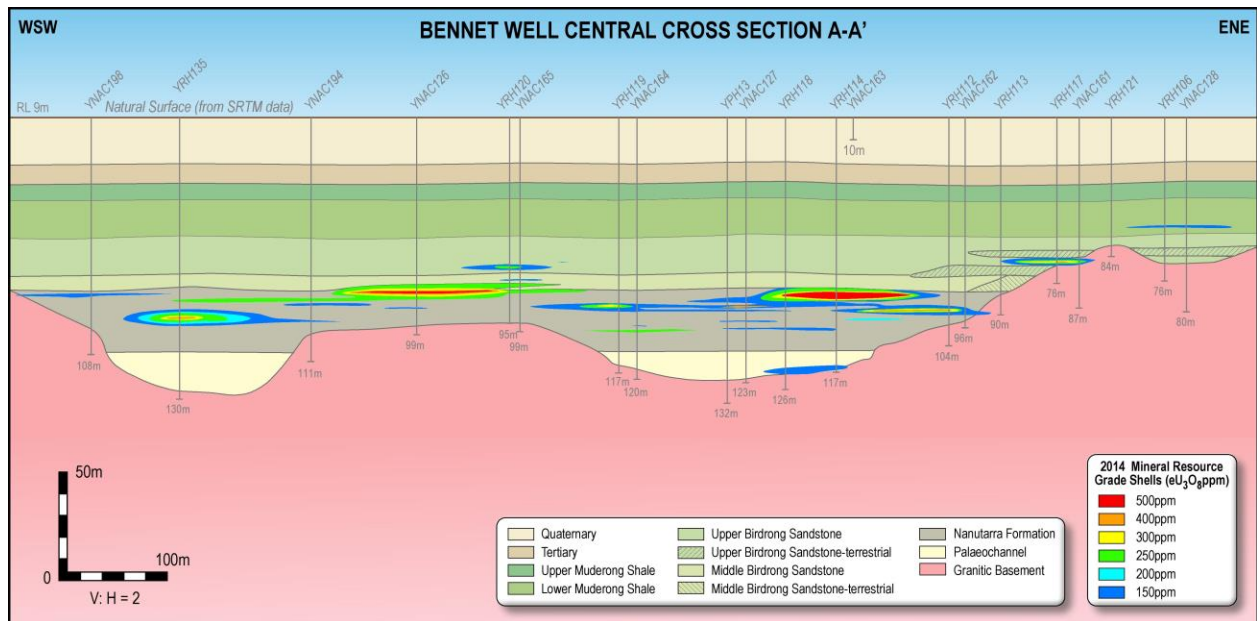


**Figure 2: Yanrey Project – Deposit, Prospect and Target Locations**

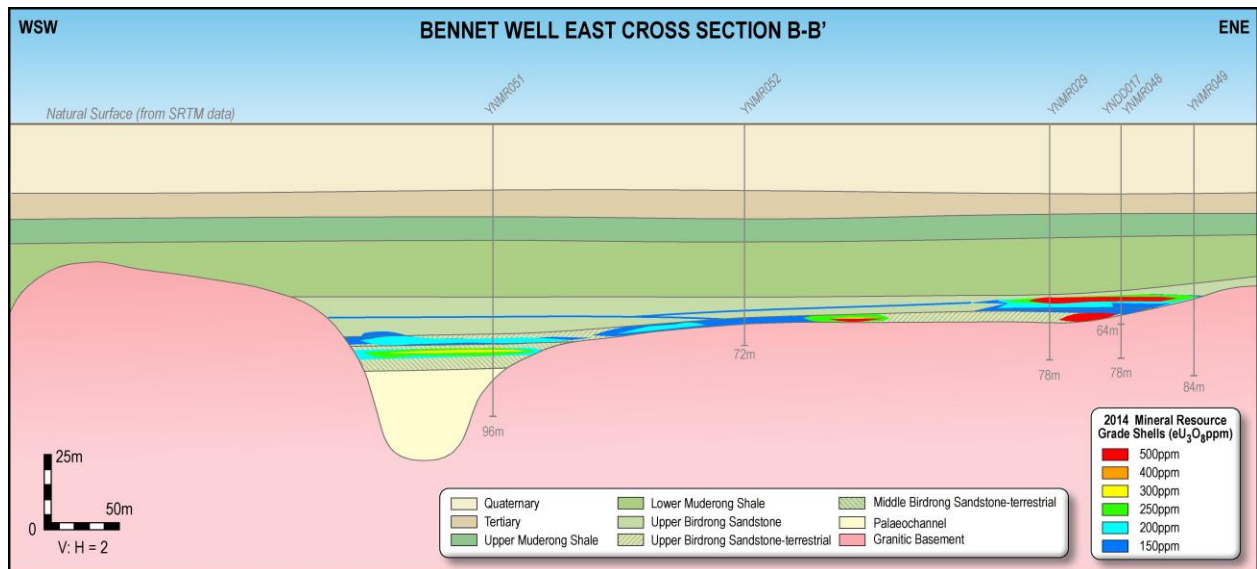




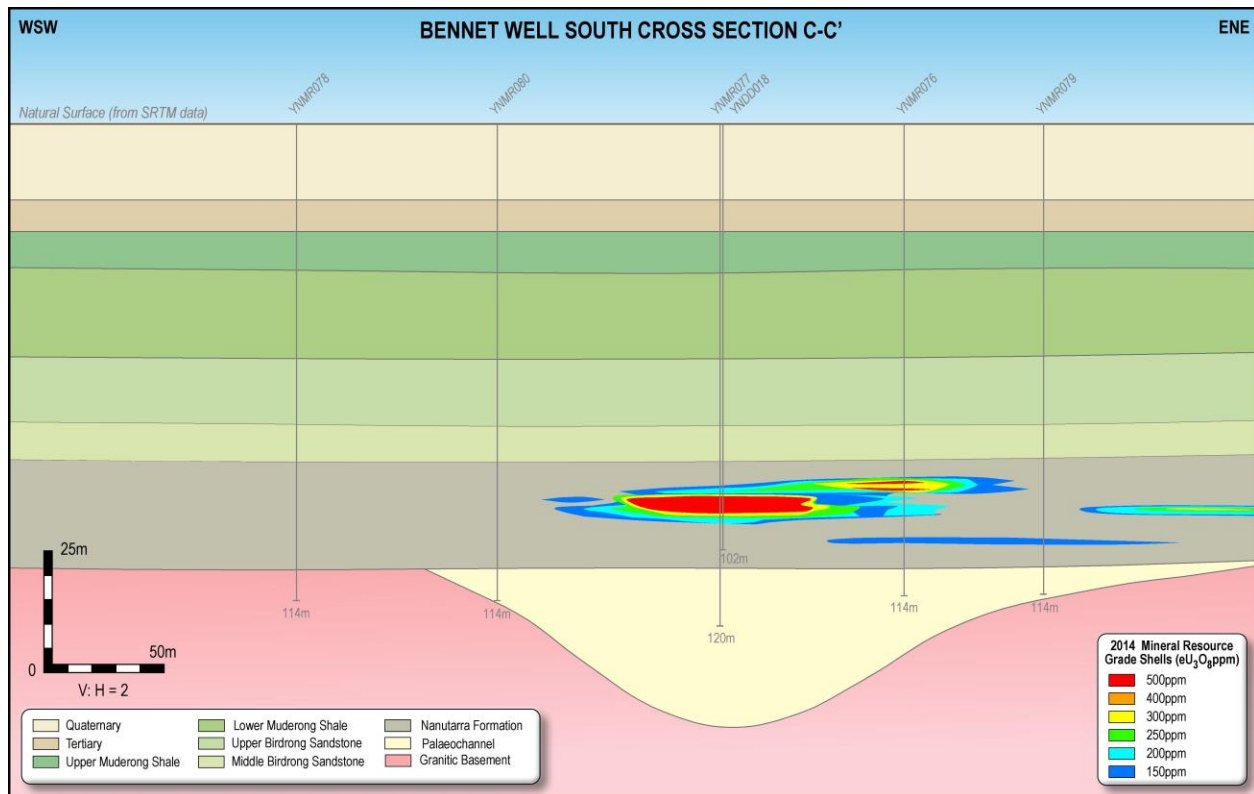
**Figure 3:** Bennet Well prospect location map on E08/1493 showing the location of the various Bennet Well resources and September 2014 JORC 2012 Resource upgrade showing the distinct grade shells



**Figure 4:** Bennet Well Central cross section showing historical drillholes and intersected uranium mineralisation based on the September 2014 Resource upgrade grade shells



**Figure 5:** Bennet Well East cross section showing historical drilling and a diamond core holes (YNDD017) from the 2013 core program, along with intersected uranium mineralisation based on the September 2014 Resource upgrade



**Figure 6:** Bennet Well South cross section showing the historical and diamond drilling from 2013 intersecting a lens of high grade uranium mineralisation, as defined by the September 2014 Resource upgrade

At the end of the last quarter, a three month-long drilling campaign was conducted with the aim of a) increasing the average grade of the Bennet Well Uranium Deposit, b) increasing the current resource to a target of 30Mlbs of Uranium, and c) discovering new areas of high grade uranium mineralisation with a view to extending the boundaries of the current resource area along strike to the north and / or south.

Drilling initially began with a number of rotary mud drillholes, however the discovery and subsequent definition of a pod of high grade uranium mineralisation in the southern part of Bennet Well East, resulted in the mobilisation of a diamond core rig and the addition of a small number of core holes to the program. Diamond core drilling was added to the program in order to facilitate and fast-track field leach trials in this particular part of the overall resource area (refer to ASX announcement 2 December 2014).

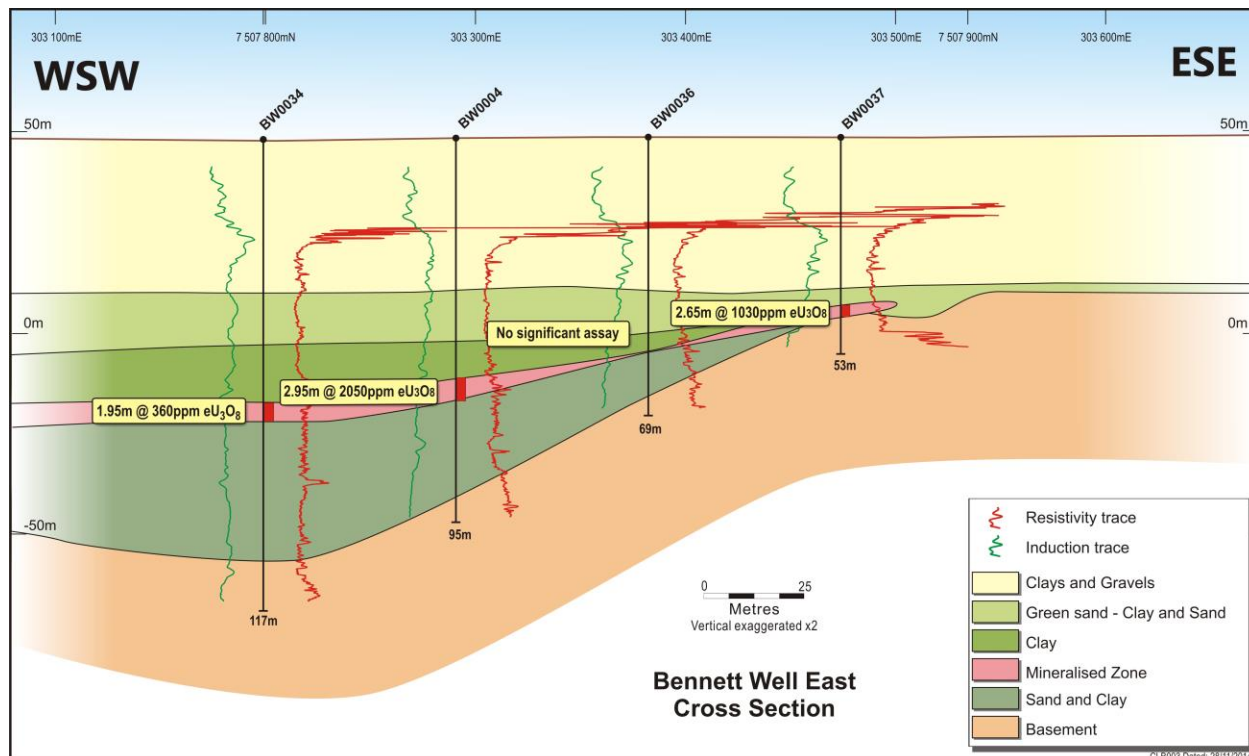
The entire field campaign comprised 73 holes for a total of 6,319 drilled metres with the following breakdown:

- Rotary mud drilling: 67 holes for 5,785 m
- Diamond core drilling: 6 holes for 534 m

Geophysical assaying by downhole gamma, resistivity, density and induction logging was conducted on all drillholes – Table 2 provides the full list of mineralisation intercepts calculated from the downhole geophysical assaying, using a minimum internal thickness of 0.4 m and a lower cut-off grade of 150 ppm eU<sub>3</sub>O<sub>8</sub>.







**Figure 8:** Bennet Well East cross section through the central part of the high grade area illustrated in Figure 7

## YANREY PROJECT

The Yanrey Project comprises exploration tenements detailed in the Schedule of Tenements at the end of this document. The Bennet Well Uranium Deposit is situated within this project area.

Consultant geophysicist, Kim Frankcombe completed a comprehensive review of all geophysical data known to exist over the project area. This review included data levelling, image creation, and interpretation. Documenting the inter-relationship between datasets and with known geology obtained from drilling became the priority of this re-evaluation.

The review comprised reinterpretation of:

- aeromagnetic and radiometric surveys – historic data
- gravity – historic and Cauldron collected data
- airborne electromagnetic survey – historic and Cauldron collected data
- drilling data – historic and Cauldron collected data
- regional scale geological mapping – government data
- local geological interpretation – Cauldron information around Bennet Well

Gravity provided the most effective means at local scale to predict areas where uranium accumulation is likely; whereas airborne electromagnetic surveys are reasonably effective at tenement scale. Both techniques have the ability to map the location of the basement incised palaeochannel, which is a good general predictor of sites of accumulation for uranium mineralisation.

**Table 2:** Collar details and significant uranium intercepts for the 2014 drilling over the Bennet Well Resource area

Hole Name	Hole Type	Easting	Northing	RL	Total Depth (m)	Depth From (m)	Depth To (m)	Thickness (m)	Grade (eU <sub>3</sub> O <sub>8</sub> ppm)	Significant Intercept (m@eU <sub>3</sub> O <sub>8</sub> ppm)	Drilling Objective (see Footnote)
BW0001	RM	303181	7507984	49	113	53.45	54.45	1.00	408.04	1.00m @ 408.04	A
						57.10	57.95	0.85	690.26	0.85m @ 690.26	
						58.70	59.40	0.70	355.00	0.70m @ 355.00	
BW0002	RM	303118	7508078	47	77	47.70	49.25	1.55	672.70	1.55m @ 672.70 0	A
BW0003	RM	303043	7508174	49	54	50.50	52.25	1.75	274.79	1.75m @ 274.79 0	A
BW0004	RM	303282	7507715	51	131	62.25	63.00	0.75	220.10	0.75m @ 220.10	A
						97.25	98.05	0.80	195.26	0.80m @ 195.26	
BW0005	RM	302635	7507534	47	69	NSR					D
BW0006	RM	302570	7507610	48	59	NSR					D
BW0007	RM	302621	7507678	48	64	NSR					D
BW0008	RM	302128	7506884	48	144	92.00	92.50	0.50	228.72	0.50m @ 228.72	D
BW0009	RM	303163	7508105	49	90	51.25	52.65	1.40	627.99	1.40m @ 627.99	A
						85.90	87.50	1.60	165.04	1.60m @ 165.04	
BW0010	RM	303245	7508159	48	66	41.35	44.05	2.70	1344.29	2.70m @ 1344.29	B
						44.50	45.85	1.35	290.48	1.35m @ 290.48	
BW0011	RM	303045	7508068	48	64	54.95	55.85	0.90	419.57	0.90m @ 419.57	B
BW0012	RM	303277	7508201	48	45	NSR					B
BW0013	RM	303254	7507998	49	83	49.20	50.45	1.25	528.72	1.25m @ 528.72	A
						54.70	56.10	1.40	1519.81	1.40m @ 1519.81	
BW0014	RM	303095	7507925	49	78	58.15	59.85	1.70	261.24	1.70m @ 261.24	B
BW0015	RM	303017	7507880	48	80	NSR					B
BW0016	RM	303352	7508018	48	80	47.25	50.60	3.35	674.84	3.35m @ 674.84	A
BW0017	RM	303096	7508700	48	66	NSR					D
BW0018	RM	303198	7508699	48	84	NSR					D
BW0019	RM	303429	7508037	48	47	NSR					B
BW0020	RM	303353	7507965	48	89	49.65	53.55	3.90	306.48	3.90m @ 306.48	B
BW0021	RM	303260	7507946	48	89	51.90	52.75	0.85	404.05	0.85m @ 404.05	A
						55.95	58.10	2.15	1081.90	2.15m @ 1081.90	
						58.55	61.05	2.50	371.05	2.50m @ 371.05	
						81.65	82.60	0.95	358.55	0.95m @ 358.55	
BW0022	RM	302722	7508695	48	21	NSR					Hole abandoned due to impenetrable hard bands
BW0023	RM	302671	7508675	48	86	NSR					C
BW0024	RM	302569	7508640	48	95	68.25	69.50	1.25	441.06	1.25m @ 441.06	C
BW0025	RM	302621	7508658	48	91	NSR					C

Hole Name	Hole Type	Easting	Northing	RL	Total Depth (m)	Depth From (m)	Depth To (m)	Thickness (m)	Grade (eU <sub>3</sub> O <sub>8</sub> ppm)	Significant Intercept (m@eU <sub>3</sub> O <sub>8</sub> ppm)	Drilling Objective (see Footnote)
BW0026	RM	302530	7509639	48	74.5	55.85	57.00	1.15	478.77	1.15m @ 478.77	D
BW0027	RM	302455	7509599	48	86	62.80	63.60	0.80	350.49	0.80m @ 350.49	D
BW0028	RM	303158	7508506	48	37	NSR					C
BW0029	RM	303091	7508484	48	41	NSR					C
BW0030	RM	303298	7508702	48	43	NSR					D
BW0031	RM	303398	7508702	48	25.5	NSR					D
BW0032	RM	303238	7508352	48	45.5	NSR					C
BW0033	RM	303165	7508263	48	68	NSR					C
BW0034	RM	303199	7507801	48	117	61.55	63.50	1.95	361.66	1.95m @ 361.66	A
BW0035	RM	303292	7507823	48	95	57.60	60.55	2.95	2051.02	2.95m @ 2051.02	A
BW0036	RM	303384	7507849	48	68.5	NSR					A
BW0037	RM	303476	7507875	48	53	40.05	42.70	2.65	1028.36	2.65m @ 1028.36	B
BW0038	RM	303199	7507701	48	119	65.60	66.30	0.70	371.37	0.70m @ 371.37	B
						90.20	91.10	0.90	219.80	0.90m @ 219.80	
BW0039	RM	303289	7507615	48	119	63.70	64.40	0.70	328.43	0.70m @ 328.43	B
BW0040	RM	303390	7507646	48	89	53.35	53.90	0.55	198.28	0.55m @ 198.28	A
						54.90	55.35	0.45	330.95	0.45m @ 330.95	
						58.50	59.30	0.80	204.93	0.80m @ 204.93	
BW0041	RM	303308	7507431	48	107	61.95	62.60	0.65	351.28	0.65m @ 351.28	C
						86.50	89.50	3.00	188.56	3.00m @ 188.56	
BW0042	RM	303339	7507462	49	91	58.25	59.60	1.35	266.86	1.35m @ 266.86	C
BW0043	RM	303214	7507406	49	107	63.75	64.60	0.85	345.54	0.85m @ 345.54	C
BW0044	RM	303120	7507384	49	100	61.75	62.35	0.60	291.43	0.60m @ 291.43	C
BW0045	RM	303354	7507742	49	83	55.85	57.95	2.10	664.87	2.10m @ 664.87	A
						58.40	59.45	1.05	194.60	1.05m @ 194.60	
BW0046	RM	303441	7507767	49	65	44.05	44.90	0.85	411.86	0.85m @ 411.86	A
						57.50	58.20	0.70	173.47	0.70m @ 173.47	
BW0047	RM	303251	7508074	49	77	47.90	49.15	1.25	620.37	1.25m @ 620.37	A
						63.60	64.65	1.05	273.57	1.05m @ 273.57	
BW0048	RM	303126	7507985	49	83	54.85	55.85	1.00	458.17	1.00m @ 458.17	A
						57.45	58.90	1.45	619.58	1.45m @ 619.58	
BW0049	RM	303425	7507700	49	83	52.40	52.95	0.55	280.41	0.55m @ 280.41	A
BW0050	RM	303340	7507680	49	94	58.20	59.20	1.00	215.20	1.00m @ 215.20	A
						61.10	61.85	0.75	362.65	0.75m @ 362.65	
BW0051	RM	303550	7507795	49	44	NSR					B
BW0052	RM	303510	7507785	49	51	39.95	41.05	1.10	587.85	1.10m @ 587.85	B
BW0053	RM	303460	7507825	49	54	40.55	42.05	1.50	454.82	1.50m @ 454.82	B
BW0054	RM	303435	7507910	49	63	NSR					B
BW0055	RM	303198	7508139	49	103	44.70	46.30	1.60	613.99	1.60m @ 613.99	A

Hole Name	Hole Type	Easting	Northing	RL	Total Depth (m)	Depth From (m)	Depth To (m)	Thickness (m)	Grade (eU <sub>3</sub> O <sub>8</sub> ppm)	Significant Intercept (m@eU <sub>3</sub> O <sub>8</sub> ppm)	Drilling Objective (see Footnote)
BW0056	DD	303295	7507805	49	87.42	58.80	61.75	2.95	993.63	2.95m @ 993.63	A
BW0057	RM	300377	7506116	48	140	83.50	84.85	1.35	511.78	1.35m @ 511.78	C
						89.55	90.85	1.30	309.73	1.30m @ 309.73	
BW0058	RM	300257	7506077	48	135	96.10	97.10	1.00	332.13	1.00m @ 332.13	C
						98.30	99.00	0.70	265.94	0.70m @ 265.94	
						109.25	109.8	0.55	212.70	0.55m @ 212.70	
BW0059	RM	300619	7505646	48	113	67.35	68.05	0.70	460.77	0.70m @ 460.77	C
BW0060	RM	300704	7505681	48	116	65.65	66.35	0.70	512.10	0.70m @ 512.10	C
BW0061	DD	303270	7507795	49	70.8	61.15	63.60	2.45	1263.79	2.45m @ 1263.79	A
BW0062	RM	300233	7507672	49	140	106.70	107.20	0.50	278.02	0.50m @ 278.020	D
BW0063	RM	299975	7507675	43	119	106.35	106.95	0.60	241.17	0.60m @ 241.17	D
BW0064	RM	299835	7507634	43	120	NSR					D
BW0065	RM	299695	7507594	43	113	NSR					D
BW0066	RM	299569	7507556	49	140	117.95	118.45	0.50	177.86	0.50m @ 177.86	D
BW0067	RM	299443	7507519	49	125	NSR					D
BW0068	RM	300098	7508041	49	133	NSR					D
BW0069	RM	299970	7507977	49	140	NSR					D
BW0070	DD	301799	7508428	48	120	96.25	97.65	1.40	268.93	1.40m @ 268.93	A
						98.50	99.20	0.70	137.50	0.70m @ 137.50	
						103.45	104.05	0.60	256.62	0.60m @ 256.62	
BW0071	DD	303245	7507785	49	75.4	61.35	63.00	1.65	398.35	1.65m @ 398.35	A
						63.75	64.55	0.80	557.70	0.80m @ 557.70	
BW0072	DD	303325	7507815	49	66.4	57.45	58.65	1.20	1133.63	1.20m @ 1133.63	A
BW0073	DD	301736	7508411	48	114.4	92.35	92.75	0.40	306.46	0.40m @ 306.46	A
						96.50	101.15	4.65	486.78	4.65m @ 486.78	
						101.95	104.10	2.15	763.53	2.15m @ 763.53	

**Footnote:** A - to increase tenor of existing high grade; B - to define existing high grade areas; C - to extend zones of high grade mineralisation in order to add tonnage; D - to explore for new areas of mineralisation, scout drilling.

RM - rotary mud drilling; DD - diamond drill core

All coordinates given are in MGA94\_Zone 50 datum

All holes were drilled at an Azimuth of 000 and an Inclination of -90°

All Significant Intercepts calculated using a 150ppm cut-off grade and a minimum intercept thickness of 0.4m

NSR – No significant results



## **MARREE BASE METALS PROJECT, SOUTH AUSTRALIA**

In late 2014, an independent technical review of the Marree project was undertaken by geologists within the wider Cape Lambert Group. The objective was to conduct a reappraisal of the base metal potential at Marree.

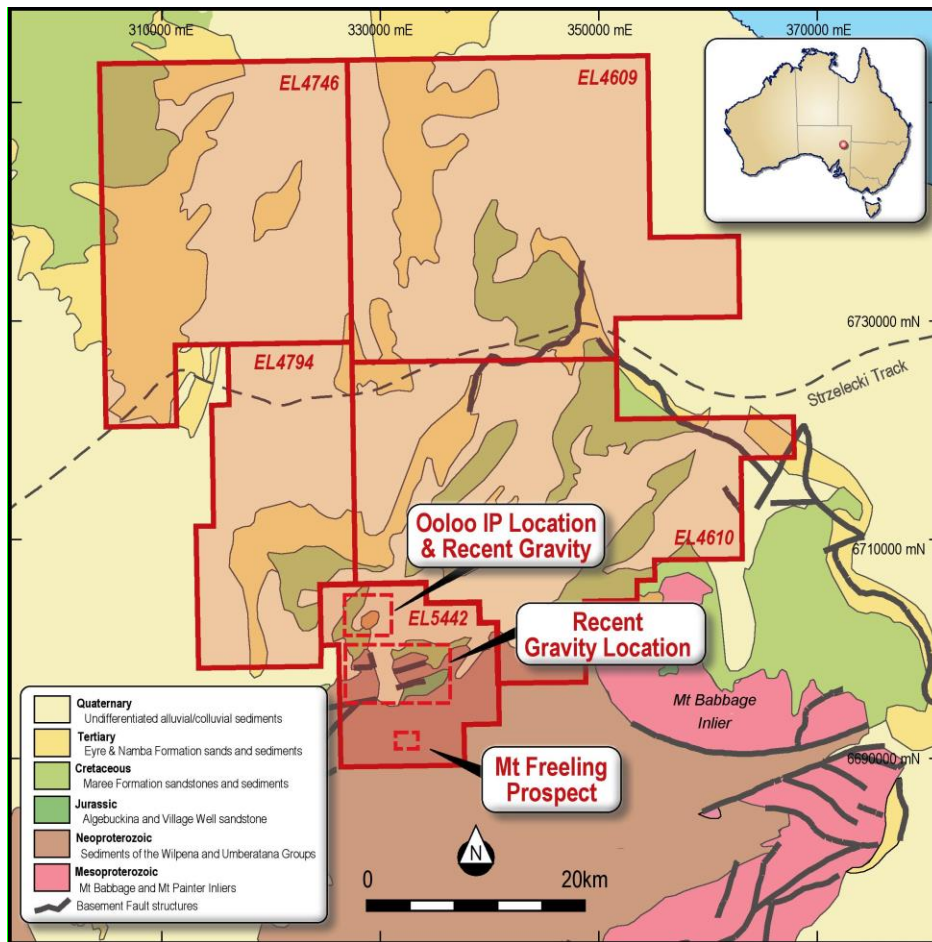
Previous technical reviews by Cauldron and a geophysical consultant has shown the necessity to delineate the structural setting of Ooloo and Mount Freeling prospects. Both these prospects are covered by transported soil of varying thickness, which requires interpretation of data collected through an indirect geophysical method.

The most appropriate means of this test is in review, and will be completed to provide a mineral systems understanding of potential mineralisation, and to delineate drill targets with the exploration model. The obscuring of outcropping geology by transported material requires further data collection using geophysical techniques as previously announced. The justification and planning of this geophysical data collection is the current status of this project. Given the advancing project status and exploration success at Bennet Well this has become a lower priority.

## **MARREE URANIUM PROJECT, SOUTH AUSTRALIA**

A Four Mile (Quasar Resources Pty Ltd – Alliance Resource Limited joint Venture) model of mineralisation is possible in the south-eastern and south- central portions of the tenement adjacent to the range-front flanking the Mount Babbage Inlier onto which a system of Cretaceous, Tertiary and Quaternary sediments on-lap. The neo-tectonic framework in the Cauldron held portion of the tenement is similar to that adjacent to Mount Painter where the mineralisation of Four Mile deposit is located.

A meeting with joint venture partners was held to review potential work plans for uranium and base metal exploration in Marree. Cauldron is assessing its options and means of contributing further funding to the Marree project.



**Figure 9:** Marree Project – Location of identified prospects

## **TENEMENT ADMINISTRATION: AUSTRALIA**

### ***Objection to Cauldron's Applications for exploration licences 08/2385-2387***

Cauldron lodged applications for exploration licences 08/2385-2387 (**Exploration Licences**) on 4 April 2012. Forrest & Forrest Pty Ltd lodged objections against the Cauldron applications on 8 May 2012. The applications and objections were heard before the Perth Mining Warden over 9 to 12 December 2013. As announced on 14 February 2014, the Mining Warden recommended that the uranium exploration licences sought by Cauldron to conduct exploration on and adjacent to pastoral leases on the Minderoo pastoral station in Western Australia's Pilbara region be refused. As announced on 7 January 2015, Cauldron received confirmation, from the Department of Mines and Petroleum on 5 January 2015, that the Minister reversed the Warden's decision and that there is sufficient grounds to allow the Cauldron applications to proceed through the determination process under the Mining Act 1978.

### ***Energia Mineral's Objection and Application for Forfeiture***

On 14 August 2013 Energia Minerals Limited (ASX: **EMX**) lodged objections to applications for exemption from expenditure and lodged applications for forfeiture affecting exploration licences 08/2160, 08/2161 and 08/2165 held by Cauldron (**Tenements**). The applications for exemption

(and associated objections) and applications for forfeiture relate to the expenditure year ending 20 May 2013 (in relation to exploration licence 08/2160) and 14 June 2013 (in relation to exploration licences 08/2161 and 08/2165). The proceedings are administrative in nature and are commenced under the *Mining Act 1978* (WA) (**Act**).

The exemptions are continuing through the legal court processes with no end date set at this point in time. The proceedings are currently at an early stage before the Perth Mining Warden.

### **EXPLORATION ACTIVITIES: ARGENTINA**

In Argentina, Cauldron controls, through its wholly-owned subsidiary Cauldron Minerals Limited (**Cauldron Minerals**), and an agreement with Caudillo Resources S.A. (**Caudillo**) more than 3,400 km<sup>2</sup> of ground in six project areas (Figure 10) located in four provinces.

During the December 2014 quarter consultant geologists completed a site visit to the various project areas in Argentina. Preliminary feedback from the consultant party has positively rated the majority of the projects. The flagship, Rio Colorado project, is highlighted as an area with significant potential to develop a polymetallic mineral resource. In addition, the Las Marias project is also rated as having good exploration potential for uranium and polymetallic mineralisation where a paucity of modern exploration activity has left the area considerably undervalued.

The final report of prospectivity evaluation and recommendations for future work will be used to develop a strategic plan and detailed exploration proposal to be put before the Cauldron Board for consideration of approval.

Cauldron is committed to the Argentinian projects as they represent an excellent opportunity to add value to the Cauldron asset portfolio.

The key processes to access Rio Colorado for drilling have been initiated during the December 2014 quarter with the revision of the Environmental Report required for the State authorities to lift the access restriction. The University of Catamarca has been commissioned to complete this key work. The Report is expected to be completed in the March 2015 quarter. Subject to the acceptance of this report by the Department of Mining in Catamarca, access for the continuation of exploration activities leading to a drill program is expected in the near term.

Below is a summary of the Company's project areas in Argentina:

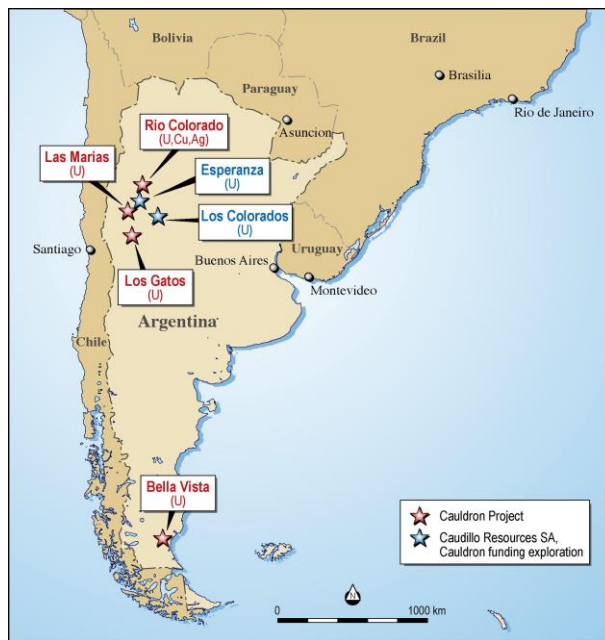
#### **Cauldron Minerals Ltd**

- The Rio Colorado Project, Catamarca Province: covers an area of 448 km<sup>2</sup> and comprises four Manifestations of Discovery (**MDs**), and six granted exploration licences (cateos). The deposit intermittently outcrops over a strike of 17 km with numerous small scale historical workings focused on the sandstone-hosted uranium-copper-silver mineralisation; and
- Las Marias, San Juan Province: comprises one granted exploration licence (cateo) and twelve cateo applications covering an area of 747 km<sup>2</sup>. The project displays outcropping sandstone hosted uranium deposits, but is also prospective for copper, silver and gold.

### Caudillo Resources S.A.

- Los Colorados Project, La Rioja Province: comprises four MDs. The project includes the old Los Colorados Uranium Mine, which has a quoted production of approximately 55 tonnes of uranium concentrate (1992 and 1996), from roll-front, sandstone-hosted uranium mineralisation.
- Esperanza Project, La Rioja Province: comprising of seven MDs and eight granted exploration licences (cateos) (1,018km<sup>2</sup>) prospective for sandstone hosted uranium deposits.

The Company also has several applications pending for exploration licences in the Catamarca, San Juan, La Rioja and Santa Cruz provinces.



**Figure 10:** Argentina – Location of Prospects

**End.**

For further information, visit [www.cauldronenergy.com.au](http://www.cauldronenergy.com.au) or contact:

**Simon Youds**

Cauldron Energy Limited

Ph: (08) 9380 9555

**David Tasker/ Colin Jacoby**

Professional Public Relations

Ph: (08) 9388 0944

## **Disclosure Statements**

### ***Competent Person Statement***

The information in this report that relates to the Mineral Resource for the Bennet Well Uranium Project is based on information compiled by Mr Jess Oram, Exploration Manager of Cauldron Energy and Mr Stephen Hyland, who is a Principal Consultant of Ravensgate. Mr Oram is a Member of the Australasian Institute of Geoscientists and Mr Hyland is a Fellow of the Australasian Institute of Mining and Metallurgy. Mr Oram has sufficient experience that is relevant to the style of mineralisation, type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 edition of the Australasian Code for Reporting of Exploration, Results, Mineral Resource and Ore Reserves (JORC Code 2012). Mr Oram and Mr Hyland consent to the inclusion in the report of the matters based on this information in the form and context in which it appears.

The information in this report that relates to exploration results is based on information compiled by Mr Jess Oram, Exploration Manager of Cauldron Energy. Mr Oram is a Member of the Australasian Institute of Geoscientists who has sufficient experience that is relevant to the style of mineralisation, type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 edition of the Australasian Code for Reporting of Exploration, Results, Mineral Resource and Ore Reserves (JORC Code 2012). Mr Oram consents to the inclusion in the report of the matters based on this information in the form and context in which it appears.

### **Schedule of Tenements**

Mining tenements held at 31 December 2014, including tenements acquired and disposed of during the quarter:

Tenement reference	Project & Location	Acquired interest during the quarter	Disposed interest during the quarter	Interest at end of quarter
E08/1489	YANREY - WESTERN AUSTRALIA	-	-	100%
E08/1490	YANREY - WESTERN AUSTRALIA	-	-	100%
E08/1493	YANREY - WESTERN AUSTRALIA	-	-	100%
E08/1501	YANREY - WESTERN AUSTRALIA	-	-	100%
E08/2017	YANREY - WESTERN AUSTRALIA	-	-	100%
E08/2081	YANREY - WESTERN AUSTRALIA	-	-	100%
E08/2160	YANREY - WESTERN AUSTRALIA	-	-	100%
E08/2161	YANREY - WESTERN AUSTRALIA	-	-	100%
E08/2165	YANREY - WESTERN AUSTRALIA	-	-	100%
E08/2205	YANREY - WESTERN AUSTRALIA	-	-	100%
E45/2405	BEADELL - WESTERN AUSTRALIA	-	-	20%
E08/2478	YANREY – WESTERN AUSTRALIA	-	-	100%
E08/2479	YANREY – WESTERN AUSTRALIA	-	-	100%
E08/2480	YANREY – WESTERN AUSTRALIA	-	-	100%
165/2008	Catamarca, Argentina	-	-	100%
571/2009	Catamarca, Argentina	-	-	100%

Tenement reference	Project & Location	Acquired interest during the quarter	Disposed interest during the quarter	Interest at end of quarter
393/2010	Catamarca, Argentina	-	-	100%
321/2008	Catamarca, Argentina	-	-	100%
322/2008	Catamarca, Argentina	-	-	100%
307/2008	Catamarca, Argentina	-	-	100%
312/2008	Catamarca, Argentina	-	-	100%
316/2008	Catamarca, Argentina	-	-	100%
317/2008	Catamarca, Argentina	-	-	100%
324/2008	Catamarca, Argentina	-	-	100%
1124-546-2010	Las Marías Project - San Juan, Argentina	-	-	100%

Mining tenements with beneficial interest held in farm-in/farm-out agreements held at 31 December 2014, including interests acquired and disposed of during the quarter:

Farm-in Agreement and Tenement reference	Project & Location	Acquired interest during the quarter	Disposed Interest during the quarter	Interest at end of quarter
E08/1494	UAROO - WESTERN AUSTRALIA	-	-	70%*
E08/1495	UAROO - WESTERN AUSTRALIA	-	-	70%*
140/2007	Rio Colorado Project - Catamarca, Argentina	-	-	92.50%**
141/2007	Rio Colorado Project - Catamarca, Argentina	-	-	92.50%**
142/2007	Rio Colorado Project - Catamarca, Argentina	-	-	92.50%**
143/2007	Rio Colorado Project - Catamarca, Argentina	-	-	92.50%**
144/2007-581/2009	Rio Colorado Project - Catamarca, Argentina	-	-	92.50%**
176/1997	Rio Colorado Project - Catamarca, Argentina	-	-	92.50%**
232/2007	Rio Colorado Project - Catamarca, Argentina	-	-	92.50%**
270/1995	Rio Colorado Project - Catamarca, Argentina	-	-	92.50%**
271/1995	Rio Colorado Project - Catamarca, Argentina	-	-	92.50%**
43/2007	Rio Colorado Project - Catamarca, Argentina	-	-	92.50%**

\*Rights to uranium only

\*\*Cauldron has signed an exclusive option agreement through its wholly owned subsidiary Cauldron Minerals Ltd (formerly Jackson Global Ltd) with a private party (Dr Horacio Solis), to earn 92.5% in 230km<sup>2</sup> of the Rio Colorado uranium project in Argentina. The remainder of the project is (532km<sup>2</sup>) is held by Cauldron in the name of a related entity. Together, both areas will form the Rio Colorado Joint Venture. Cauldron will earn its Initial Interest of 51% in the project by completing a minimum work program, including 3,000 metres of drilling. The Company can earn 92.5% of the project by completing exploration expenditure of \$500,000 within three years following earning of the initial interest.

Farm-out Agreement and Tenement reference	Project & Location	Acquired interest during the quarter	Disposed Interest during the quarter	Interest at end of quarter
EL4609	MAREE - SOUTH AUSTRALIA	-	-	60% (increasing)
EL4610	MAREE - SOUTH AUSTRALIA	-	-	60% (increasing)
EL4746	MAREE - SOUTH AUSTRALIA	-	-	60% (increasing)
EL4794	MAREE - SOUTH AUSTRALIA	-	-	60% (increasing)
EL5442	MAREE - SOUTH AUSTRALIA	-	-	60% (increasing)

## APPENDIX 1

JORC Code, 2012 Edition

### JORC Code, 2012 Edition - Bennet Well Exploration Drilling 2014

#### Section 1 Sampling Techniques and Data

(Criteria in this section apply to all succeeding sections.)

Part	Criteria	Explanation	Comment
1-1	Sampling Techniques	<i>Nature and quality of sampling (e.g. cut channels, random chips, or specialised industry standard measurement tools appropriate to the minerals under investigation, such as downhole gamma sondes, or handheld XRF instruments etc). These examples should not be taken as limiting the broad meaning of sampling.</i>	<p>The Bennet Well mud rotary drilling program collected downhole geophysical data to determine uranium assay, and in situ formation density. Data collected at 1 cm sample rate comprises gamma ray (two calibrated sondes on two separate sonde stacks), caliper, dual lateral resistivity, dual induction, triple density. Downhole geophysical log data is collected by contractors, Borehole Wireline Logging Services of Adelaide using Geovista made downhole slim-line tools.</p> <p>All uranium assay grade is determined from deconvolved gamma logs; using dead-time corrected calibrated gamma sondes, and the application of hole-size correction, moisture correction, and a correction for secular disequilibrium.</p> <p>All in situ formation density estimated from data collected by a triple density probe; using calibrated density sondes from the three channels of the probe (short spaced, long spaced and bed resolution density). These data are corrected for the high background gamma environment of the mineralised zone (by running the probe without the source in grades above 800 ppm eU3O8) and for variations in hole-size by applying a hole-size correction model derived from the AMDEL calibration facility.</p> <p>About 90% of the drilling is mud rotary, the majority of which was 5¼" (135 mm) diameter and 10% is PQ core (122 mm diameter), all of which was logged with the downhole geophysical sondes. Core from the drilling program awaits sampling and assay. The assay from the core will be analysed with an ICP-MS finish and will be used to directly compare against the assay determined by the gamma sondes.</p>
		<i>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</i>	<p>The gamma sondes were calibrated in the PIRSA calibration facility in Adelaide in the month prior to the commencement of logging, by Borehole Wireline. Calibration of the two gamma sondes were completed using dead-time corrected grade and holesize correction models, and for the density sonde using a density model and a hole-size correction model.</p>

Part	Criteria	Explanation	Comment
			Assays, density determinations and permeability tests will be completed from samples of core, to check against the assays estimated from calibrated gamma data, and density determined from calibrated density data and porosity from the density data.
		<i>Aspects of the determination of mineralisation that are Material to the Public Report.</i>	Comparisons in a previous drilling campaign in 2013 between assays of core (analysed by Australian Nuclear Science and Testing Organisation - ANSTO) and assays from gamma data shows that the latter reliably estimates uranium grade to within 10%, and there is generally an upside to the gamma derived grade relative to the ICP derived grade.
	<b>Drilling Techniques</b>	<i>Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).</i>	The drilling was completed by a combination of mud rotary (diameter of 5¼”) and triple tube PQ core; with bore wall stabilised by bentonite muds and chemical polymers. About 90% of the drilling program was comprised of mud rotary drilling and 10% was core.
<b>1-2</b>	<b>Drill Sample Recovery</b>	<i>Method of recording and assessing core and chip sample recoveries and results assessed.</i>	Sample recovery from the mud rotary drilling is not required for assay, but a sample was collected in 1 m downhole increments and laid out near the drill collar for use in logging the downhole lithology, redox state, alteration and the stratigraphic sequence. A specimen sample of each downhole increment for each drillhole remains on-site.  Recoveries of core were measured inside the splits before transferring it to the core trays.
		<i>Measures taken to maximise sample recovery and ensure representative nature of the samples.</i>	Triple tube PQ core was determined as the most effective drilling method (outside of potential use of sonic drilling) to maximize recovery of the mostly unconsolidated interbedded sand and clay sequences that comprise the host to mineralisation. Short runs achieved best overall recovery.  Sample recovery from the mud rotary drilling is not recorded because a physical sample is not used for assay determination.
		<i>Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.</i>	Sample loss does not affect uranium assay from deconvolved gamma ray data.  Variations in uranium grade caused by changing drillhole size is minimised through an accurate measurement of hole diameter using the caliper tool and application of a hole-size correction factor. Hole-size correction models have been determined by Borehole Wireline, using data collected at the PIRSA calibration facility in Adelaide; with a hole-size correction factor derived



Part	Criteria	Explanation	Comment
			as a function of drillhole diameter.
1-3	Logging	<i>Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.</i>	All mud rotary chips are geologically logged which is used to assist in the interpretation of the resistivity, induction and density profiles derived from the downhole geophysical sondes. Uranium assay for a potential in-situ leach project requires mineralisation to be hosted in a porous sedimentary sequence that is readily leachable, and is determined for the former geophysical data and the mud rotary chips.
		<i>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</i>	The geological logging completed was both qualitative (sediment/rock type, colour, degree of oxidation, etc) and quantitative (recording of specific depths and various geophysical data).
		<i>The total length and percentage of the relevant intersections logged.</i>	All mud rotary chip samples and core samples were geologically logged; the entire drillhole was logged with the downhole geophysical probes.
1-4	Sub-Sampling Techniques and Sample Preparation	<i>If core, whether cut or sawn and whether quarter, half or all core taken.</i>	Core has not been sampled as yet, it is stored in freezers, and will be sectioned in half along the axis of the core for assay.
		<i>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</i>	No mud rotary chip samples were collected for geochemical assay.
		<i>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</i>	The unconsolidated sediments which host mineralisation are very difficult to successfully core and achieve full recovery; mud rotary drilling does not provide the ideal sample to assay (because it is open hole), but it does allow the passage of geophysical probes which can derive assay for uranium mineralisation. A check against assay and density derived from gamma and density probes respectively, will be completed using physical sampling derived from core.
		<i>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</i>	Two calibrated gamma probes run in separate stacks derive uranium assay from every hole. Assay from only one probe (the grade probe) is used in grade determination; the alternate probe is used to check the result derived from the grade probe. This cross-check is used to check if the correct calibration models are applied to the data, and to ascertain potential spurious results from a damaged probe or a probe that drifts out of calibration range.
		<i>Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.</i>	No physical sample is taken, but each hole is assayed with two different calibrated gamma probes.

Part	Criteria	Explanation	Comment
		<i>Whether sample sizes are appropriate to the grain size of the material being sampled.</i>	The gamma and density probe used for uranium assay determination and in situ density measurement is retracted past in-situ material accessed by the drillhole. No sorting of sample by grain size will occur under these conditions.
1-5	<b>Quality of Assay Data and Laboratory Tests</b>	<i>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</i>	Borehole Wireline Logging Services have strict quality assurance procedures to ensure tool reliability and tool calibration. Borehole Wireline has collected recent data to calibrate the gamma, density and caliper probes, and has supplied these data to Cauldron.  Provided appropriate correction factors and assay control, deconvolved downhole gamma assay provide the best assay for uranium hosted in unconsolidated sedimentary material, because of low sample quality derived from RC drilling and potential low recovery from core drilling.
		<i>For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.</i>	Deconvolved uranium grade from gamma logging comprises the following: <ul style="list-style-type: none"> <li>• each gamma tool is calibrated for tool count (gamma scintillations) against uranium response in the PIRSA calibration pits, Adelaide; using the revised pit grades of Dickson 2012</li> <li>• hole size correction factor is applied; which is generated from the PIRSA calibration pits, Adelaide; applied to every hole based on the measured hole diameter of the drillhole</li> <li>• moisture correction factor of 1.11 is applied because of the difference in dry weight uranium grade between the relatively dry calibration pits compared to the saturated unconsolidated sediments that are host to the deposit</li> <li>• disequilibrium factor of 1.07 is applied to all holes based on minimal data that needs further analysis and quantification</li> </ul>
		<i>Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.</i>	A past core drilling (2013) program completed in an area of resource derived dominantly from deconvolved gamma assay has established that there is mostly a positive upgrade in assay from gamma assay as compared to core assay.  In every hole, duplicate deconvolved gamma assay data is derived from two distinct probes and used to check for potential inaccuracy caused by electronic malfunction of any probe at any possible time.
1-6	<b>Verification of Sampling and Assaying</b>	<i>The verification of significant intersections by independent or alternative company personnel.</i>	Independent checks were completed on these data by Borehole Wireline; which were cross-checked by Cauldron against deconvolved gamma grades derived by Cauldron.
		<i>The use of twinned holes.</i>	None of the holes in this report twinned any previously existing drillhole.
		<i>Documentation of primary data, data entry</i>	Data used to derive deconvolved gamma assay (depth, gamma reading and caliper, tool_ID,

Part	Criteria	Explanation	Comment
		<i>procedures, data verification, data storage (physical and electronic) protocols.</i>	calibration_ID) is stored in .LAS files (a common industry space delimited format for downhole geophysical data) and viewed in Wellcad (saved as Wellcad .WCL files) which is then later uploaded to SQL database. The database and server is backed up regularly.
		<i>Discuss any adjustment to assay data.</i>	<p>The uranium assay derived by ICP from commercial a lab is presented in parts per million (ppm) and multiplied by 1.179 to obtain the oxide U<sub>3</sub>O<sub>8</sub> grade in ppm, the preferred grade units of the deconvolved gamma data.</p> <p>A disequilibrium factor of 1.07 is applied to the gamma deconvolved grade to account for secular disequilibrium as measured by ANSTO on limited samples in 2007; and by the difference between wet chemical assay derived from core and deconvolved assay derived from gamma logging as seen in the core drilling completed in 2013. Spatial variations in secular disequilibrium in any orebody is common; and can range from a value both greater and less than 1. More work is required to map the variations in secular disequilibrium.</p>
1-7	Location of Data Points	<i>Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.</i>	<p>The method to locate collars is by a real-time kinematic GPS system having an accuracy of plus or minus 0.5 m in the X-Y-Z plane, collected by qualified surveyor, Phil Richards of MHR Surveyors, WA. The relative level is determined from levelling to a grid derived from Shuttle Radar Topographic Mission (SRTM) data having 90 m sample spacing.</p> <p>No downhole surveys were completed since all holes were drilled vertically and the shallow drillhole depths relative to wide drill spacing would have minimal effect on potential misposition of mineralised intercepts.</p>
		<i>Specification of the grid system used.</i>	The grid system used at the Bennet Well is MGA_GDA94, Zone 50. All data is recorded using Easting and Northing and AHD.
		<i>Quality and adequacy of topographic control.</i>	The primary topographic control is from SRTM. This technique is adequate given the generally flat-lying nature of the sediments. The highly accurate RTK pickups of collars from the most recent drilling is for only a small portion of the total drilling of the deposit; the SRTM derived data provide the best means to mitigate against level-busts that would occur with RL derived from two different methods.
1-8	Data Spacing and Distribution	<i>Data spacing for reporting of Exploration Results.</i>	The spacing of the drill holes is between 100 m and 800 m within individual prospects.
		<i>Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and</i>	The area occupied by the deposit is very large and therefore drill spacing is variable; at Bennet Well East the drill spacing is adequate to derive an Indicated Resource for the mineralisation of this area. In other areas drill spacing is wide and requires further and sometimes significant infill drilling.

Part	Criteria	Explanation	Comment
		<i>Ore Reserve estimation procedure(s) and classifications applied.</i>	
		<i>Whether sample compositing has been applied.</i>	Downhole geophysical data is collected on 1 cm increments, a running five point smoothing average is applied to these data for the purposes of reducing file storage sizes.
<b>1-9</b>	<b>Orientation of Data in Relation to Geological Structure</b>	<i>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</i>	All drill holes were drilled vertically since the sediments are mostly unconsolidated and generally flat-lying. All holes therefore sample the true width of mineralisation.
		<i>If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.</i>	No sampling bias is observed by the orientation of the drill holes.
<b>1-10</b>	<b>Sample Security</b>	<i>The measures taken to ensure sample security.</i>	No physical sample taken; therefore no chain-of-custody procedure is required.
<b>1-11</b>	<b>Audits or Reviews</b>	<i>The results of any audits or reviews of sampling techniques and data.</i>	No audit of sampling technique is required.

## Section 2 Reporting of Exploration Results

(Criteria listed in the preceding section also apply to this section.)

Part	Criteria	Explanation	Comment
2-1	<b>Mineral Tenement and Land Tenure Status</b>	<i>Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.</i>	The drilling program was completed on exploration tenement E08/1493 which is 100% owned by Cauldron.  A Native Title Agreement is struck with the Thalanyji Traditional Owners which cover 100% of the tenement.
		<i>The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.</i>	This tenement is in good standing and Cauldron is unaware of any impediments for exploration on this tenement.
2-2	<b>Exploration Done by Other Parties</b>	<i>Acknowledgment and appraisal of exploration by other parties.</i>	A 70 km long regional redox front and several palaeochannels were identified by open hole drilling by CRA Exploration Pty Ltd (CRAE) during the 1970s and early 1980s. CRAE drilled over 200 holes in the greater Yanrey Project area, resulting in the discovery of the Manyingee Deposit and the identification of uranium mineralisation in the Bennet Well channel and the Spinifex Channel. Uranium mineralisation was also identified in the Ballards and Barradale Prospects.
2-3	<b>Geology</b>	<i>Deposit type, geological setting and style of mineralisation.</i>	At least 15 major palaeochannels have been identified in the greater Yanrey project area at the contact between the Cretaceous aged marine sediments of the Carnarvon Basin and the Proterozoic Yilgarn Block which lies along the granitic and metamorphic ancient coastline.  These palaeochannels have incised the underlying Proterozoic-aged granite and metamorphic rocks, which are subsequently filled and submerged by up to 150 m of mostly unconsolidated sand and clay of Mesozoic, Tertiary and Quaternary age. The channels sourced from the east enter into a deep north-south trending depression that was probably caused by regional faulting and may be a depression formed at the former Mesozoic-aged coastline.
2-4	<b>Drill Hole</b>	<i>A summary of all information material to the understanding of the</i>	

Part	Criteria	Explanation	Comment
	<b>Information</b>	<p><i>exploration results including a tabulation of the following information for all Material drill holes:</i></p> <ul style="list-style-type: none"> <li>• <i>Easting and northing of the drill hole collar;</i></li> <li>• <i>Elevation or RL (Reduced Level – elevation above sea level in metres) of the drill collar;</i></li> <li>• <i>Dip and azimuth of the hole;</i></li> <li>• <i>Down hole length and interception depth;</i></li> <li>• <i>Hole length</i></li> </ul> <p><i>If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract for the understanding of the report, the Competent Person should clearly explain why this is the case.</i></p>	Refer to table 2, below.
<b>2-5</b>	<b>Data Aggregation Methods</b>	<i>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.</i>	Average reporting intervals are derived from applying a cut-off grade of 150 ppm U <sub>3</sub> O <sub>8</sub> for a minimum thickness of 0.4 m.
		<i>Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.</i>	The higher grade intervals quoted in Table 2 are derived by length averaging intervals greater than 0.4 m in width that have assays above 800 ppm eU <sub>3</sub> O <sub>8</sub> ; sometimes these higher grade intervals appear inside a lower grade zone defined by the lower 150 ppm cutoff. A maximum internal dilution of 0.4 m was used to aggregate a thin barren zone within bounding higher grade material as long as the grade-thickness of the entire interval was above cutoff (= 150 x 0.4).
		<i>The assumptions used for any reporting of metal equivalent values should be clearly stated.</i>	No metal equivalents are used.
<b>2-6</b>	<b>Relationship Between Mineralisation Widths and Intercept Lengths</b>	<i>These relationships are particularly important in the reporting of Exploration Results.</i>	The uranium mineralisation at Bennet Well is sub-horizontal and all drilling is near-vertical, so all mineralisation values reported can be considered to be true width.
		<i>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</i>	The uranium mineralisation at Bennet Well is sub-horizontal and all drilling is near-vertical, so all mineralisation values reported can be considered as true width.
		<i>If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').</i>	The uranium mineralisation at Bennet Well is sub-horizontal and all drilling is near-vertical, so all mineralisation values reported can be considered as true width.
<b>2-7</b>	<b>Diagrams</b>	<i>Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being</i>	Included in this report

Part	Criteria	Explanation	Comment
		<i>reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.</i>	
<b>2-8</b>	<b>Balanced Reporting</b>	<i>Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.</i>	All drill locations are shown in Table 2; intercepts that are greater than 150 ppm for at least 0.4 m in thickness.
<b>2-9</b>	<b>Other Substantive Exploration Data</b>	<i>Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.</i>	<p>A metallurgical sighter testing program developed by Cauldron and ANSTO has been completed with the aim of determining the leach response of the samples under typical conditions considering both the acid leaching route and the carbonate/bicarbonate leaching route.</p> <p>Preliminary agitated leaching tests were completed on mineralisation sampled by core in 2013. The design of this sighter work was to ascertain the leaching performance of mineralisation under ideal (and arbitrary) conditions of tap water, agitated tanks and low solids loading. Three tests were completed on two composite samples obtained from the core which included: a moderate acid leach condition (duration 1 day); a strong acid leach condition (duration 1 day); and a typical carbonate/bicarbonate leach condition (duration 7 days). Recoveries of greater than 95% were achieved in all tests.</p>
<b>2-10</b>	<b>Further Work</b>	<i>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).</i>	<p>The core obtained from recent drilling and currently stored frozen will provide sample for density and profile permeability testing and geochemical assay; with further metallurgical characterisation. The former physical and chemical characterisation testing will be used to cross-check the data collected by the downhole geophysics system, the latter metallurgical testing will expand on the core work completed in 2013.</p> <p>The aims of proposed metallurgical work include: characterisation of the modal mineralogy of mineralisation using QEMSCAN/SEM or similar; quantification of the elemental composition of mineralisation and host sequences; quantify the degree of secular disequilibrium; test for the presence and behaviour of organic material, carbonate material or pyrite that may affect efficiency of leaching; further test the leach performance of mineralisation in acid and in alkali/carbonate media.</p> <p>Further core and mud rotary drilling to improve the Mineral</p>

Part	Criteria	Explanation	Comment
			Resource category of the Bennet Well deposit. Further exploration drilling is required to identify extensions to mineralisation.
		<i>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</i>	No diagrams provided.



## Appendix 5B

### Mining exploration entity and oil and gas exploration entity quarterly report

Introduced 01/07/96 Origin Appendix 8 Amended 01/07/97, 01/07/98, 30/09/01, 01/06/10, 17/12/10, 01/05/2013

Name of entity

Cauldron Energy Limited

ABN

22 102 912 783

Quarter ended ("current quarter")

31 December 2014

#### Consolidated statement of cash flows

Cash flows related to operating activities		Current quarter \$A'000	Year to date (6 months) \$A'000
1.1	Receipts from product sales and related debtors	-	-
1.2	Payments for (a) exploration & evaluation	(1,140)	(2,165)
	(b) development	-	-
	(c) production	-	-
	(d) administration	(584)	(789)
1.3	Dividends received	-	-
1.4	Interest and other items of a similar nature received	1	5
1.5	Interest and other costs of finance paid	(25)	(25)
1.6	Income taxes paid	-	-
1.7	Other: Legal	(111)	(227)
	<b>Net Operating Cash Flows</b>	<b>(1,859)</b>	<b>(3,201)</b>
<b>Cash flows related to investing activities</b>			
1.8	Payment for purchases of:		
	(a) prospects	-	-
	(b) equity investments	-	-
	(c) other fixed assets	(423)	(443)
1.9	Proceeds from sale of:		
	(a) prospects	-	-
	(b) equity investments	-	-
	(c) other fixed assets	-	-
	(d) controlled entity	-	-
1.10	Loans to other entities	(15)	(57)
1.11	Loans repaid by other entities	-	-
1.12	Other: Bonds refunded	-	-
	<b>Net investing cash flows</b>	<b>(438)</b>	<b>(500)</b>
1.13	<b>Total operating and investing cash flows (carried forward)</b>	<b>(2,297)</b>	<b>(3,701)</b>

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+ See chapter 19 for defined terms.

**Appendix 5B****Mining exploration entity and oil and gas exploration entity quarterly report**

<b>1.13</b>	<b>Total operating and investing cash flows (brought forward)</b>	<b>(2,297)</b>	<b>(3,701)</b>
	<b>Cash flows related to financing activities</b>		
1.14	Proceeds from issues of shares, options, etc.	2,530	5,586
1.15	Proceeds from sale of forfeited shares	-	-
1.16	Proceeds from borrowings	-	-
1.17	Repayment of borrowings	-	-
1.18	Dividends paid	-	-
1.19	Other:		
	Repayment of convertible loan note	(325)	(650)
	<b>Net financing cash flows</b>	<b>2,205</b>	<b>4,936</b>
	<b>Net increase (decrease) in cash held</b>	<b>(92)</b>	<b>1,235</b>
1.20	Cash at beginning of quarter/year to date	3,201	1,874
1.21	Exchange rate adjustments to item 1.20	1	1
1.22	<b>Cash at end of quarter</b>	<b>3,110</b>	<b>3,110</b>

**Payments to directors of the entity, associates of the directors, related entities of the entity and associates of the related entities**

		Current quarter \$A'000
1.23	Aggregate amount of payments to the parties included in item 1.2	140
1.24	Aggregate amount of loans to the parties included in item 1.10	-
1.25	Explanation necessary for an understanding of the transactions Payments to the parties included in item 1.2 of \$140.257 relates to: <ul style="list-style-type: none"> <li>- Director fees \$41,985</li> <li>- Director-related entities \$98,272</li> </ul>	

**Non-cash financing and investing activities**

- 2.1 Details of financing and investing transactions which have had a material effect on consolidated assets and liabilities but did not involve cash flows

N/A

- 2.2 Details of outlays made by other entities to establish or increase their share in projects in which the reporting entity has an interest

N/A

**Financing facilities available**

*Add notes as necessary for an understanding of the position.*

	Amount available \$A'000	Amount used \$A'000
3.1	Loan facilities	-
3.2	Credit standby arrangements	-

+ See chapter 19 for defined terms.

### Estimated cash outflows for next quarter

		\$A'000
4.1	Exploration and evaluation	1,000
4.2	Development	-
4.3	Production	-
4.4	Administration	350
<b>Total</b>		<b>1,350</b>

### Reconciliation of cash

Reconciliation of cash at the end of the quarter (as shown in the consolidated statement of cash flows) to the related items in the accounts is as follows.		Current quarter \$A'000	Previous quarter \$A'000
5.1	Cash on hand and at bank	3,110	3,201
5.2	Deposits at call	-	-
5.3	Bank overdraft	-	-
5.4	Other (provide details)	-	-
<b>Total: cash at end of quarter (item 1.22)</b>		<b>3,110</b>	<b>3,201</b>

### Changes in interests in mining tenements and petroleum tenements

	Tenement reference and location	Nature of interest (note (2))	Interest at beginning of quarter	Interest at end of quarter
6.1	Interests in mining tenements and petroleum tenements relinquished, reduced or lapsed	-	-	-
6.2	Interests in mining tenements and petroleum tenements acquired or increased	-	-	-

## Appendix 5B

### Mining exploration entity and oil and gas exploration entity quarterly report

#### Issued and quoted securities at end of current quarter

Description includes rate of interest and any redemption or conversion rights together with prices and dates.

		Total number	Number quoted	Issue price per security (see note 3) (cents)	Amount paid up per security (see note 3) (cents)
7.1	<b>Preference securities</b> (description)	-	-		
7.2	Changes during quarter (a) Increases through issues (b) Decreases through returns of capital, buy-backs, redemptions				
7.3	<b>+Ordinary securities</b>	247,121,205	247,121,205		
7.4	Changes during quarter (a) Increases through issues (b) Decreases through returns of capital, buy-backs	21,440,678	21,440,678		
7.5	<b>+Convertible debt securities</b> (description)				
7.6	Changes during quarter (a) Increases through issues (b) Decreases through securities matured, converted				
7.7	<b>Options</b> (description and conversion factor)	16,000,000 16,000,000 1,450,000 18,400,000 5,000,000 1,000,000 3,000,000 500,000	-	Exercise price \$0.138 \$0.118 \$0.138 \$0.138 \$0.20 \$0.20 \$0.20 \$0.45	Expiry date 31 Dec 2015 31 Dec 2015 31 Dec 2015 31 Dec 2015 30 June 2015 18 Sep 2015 30 Sep 2015 20 Oct 2015
7.8	Issued during quarter	16,000,000 16,000,000 1,450,000 18,400,000	-	Exercise price \$0.138 \$0.118 \$0.138 \$0.138	Expiry date 31 Dec 2015 31 Dec 2015 31 Dec 2015 31 Dec 2015
7.9	Exercised during quarter	-	-		

+ See chapter 19 for defined terms.

**Appendix 5B**

**Mining exploration entity and oil and gas exploration entity quarterly report**

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7.10	Expired during quarter	-	-		
7.11	<b>Debentures</b> (totals only)	-	-		
7.12	<b>Unsecured notes</b> (totals only)	-	-		

## Compliance statement

- 1 This statement has been prepared under accounting policies which comply with accounting standards as defined in the Corporations Act or other standards acceptable to ASX (see note 5).
- 2 This statement does give a true and fair view of the matters disclosed.

Sign here: .....  
(Company secretary)

Date: 30 January 2015

Print name: Catherine Julie Grant

## Notes

- 1 The quarterly report provides a basis for informing the market how the entity's activities have been financed for the past quarter and the effect on its cash position. An entity wanting to disclose additional information is encouraged to do so, in a note or notes attached to this report.
- 2 The "Nature of interest" (items 6.1 and 6.2) includes options in respect of interests in mining tenements and petroleum tenements acquired, exercised or lapsed during the reporting period. If the entity is involved in a joint venture agreement and there are conditions precedent which will change its percentage interest in a mining tenement or petroleum tenement, it should disclose the change of percentage interest and conditions precedent in the list required for items 6.1 and 6.2.
- 3 **Issued and quoted securities** The issue price and amount paid up is not required in items 7.1 and 7.3 for fully paid securities.
- 4 The definitions in, and provisions of, *AASB 6: Exploration for and Evaluation of Mineral Resources* and *AASB 107: Statement of Cash Flows* apply to this report.
- 5 **Accounting Standards** ASX will accept, for example, the use of International Financial Reporting Standards for foreign entities. If the standards used do not address a topic, the Australian standard on that topic (if any) must be complied with.

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+ See chapter 19 for defined terms.