BOSS RESOURCES LIMITED

ASX ANNOUNCEMENT 8 April 2016

BOSS INCREASES HONEYMOON URANIUM PROJECT RESOURCE BY 90% TO 53MLBS U3O8

HIGHLIGHTS

- **Gould's Dam Maiden Mineral JORC Mineral Resource of 22.1MT at 510ppm eU_3O_8 for 25Mlb contained U_3O_8 above a 250ppm eU_3O_8 lower cutoff**
    - **Indicated Resources – 4.4 Mt at 650ppm eU_3O_8 for 6.3 Mlb contained U_3O_8**
    - **Inferred Resources – 17.7 Mt at 480ppm eU_3O_8 for 18.7 Mlb contained U_3O_8**
- **Current resource model indicates significant potential for future increases through extensional and infill drilling throughout the 15km strike length at Gould's Dam**
- **Resource grade excellent when compared to ASX listed peers and ISL uranium projects in Kazakhstan and USA where <500ppm is regularly mined**
- **Since acquisition in December 2015 Boss has announced a 330% total increase of the Global Honeymoon Resource**
- **Planning underway for resource drilling at high-priority Jasons region in the Eastern tenements**

Boss Resources Limited (ASX: BOE) is pleased to announce a maiden JORC Mineral Resource at the Gould's Dam Project (combining the Gould's Dam, Gould's Dam North and Billeroo prospects) (Figure 1). The Resource is based upon an extensive review of the substantial historical drilling and exploration database that Boss acquired in December 2015 with 968 drillholes available for analysis. Boss now has significant resources established on both the eastern and western project regions. (Figure 3).

Table 1 contains the 2016 Mineral Resource estimate for the Gould's Dam Project which totals 22.1Mt @ 510ppm eU_3O_8 for 25.0 Mlb of contained U_3O_8 reported using a 250ppm eU_3O_8 lower cutoff.

Boss's Director of Geology Dr Marat Abzalov, commented:

"The significant resource upgrade for the Gould's Dam region has exceeded our initial expectations when we acquired the project. We are highly encouraged that further drilling will significantly add to the resource endowment as this is a large and highly endowed uranium system and the current estimate is constrained by low data density. Additionally, we have only just started to scratch the surface of the 50km plus strike length of the paleo channels in our Western Tenements Project and its clear we are dealing in a highly mineralised uranium province."

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The central Indicated Resource region (historically referred to as Gould's Dam) of 1.5km long by 540m wide is based upon a detailed 3D model of 7 litho-stratigraphic zones using a nominal 100ppm eU_3O_8 lower grade cutoff. The grade modelling of these zones was based upon gamma and PFN eU_3O_8 grade data as well as chemical analysis of two sonic core holes (Figure 2) undertaken in 2014.

The broader Inferred Resource covers a region of 15km x 2.5km and was based upon grade modelling of greater than 100ppm eU_3O_8 0.5m grade intercepts. These regions were modelled with a 180-200m north-south extent and 60-80m east-west extent from drillhole intercepts, based upon a geological and geostatistical review of the mineralisation in this area.

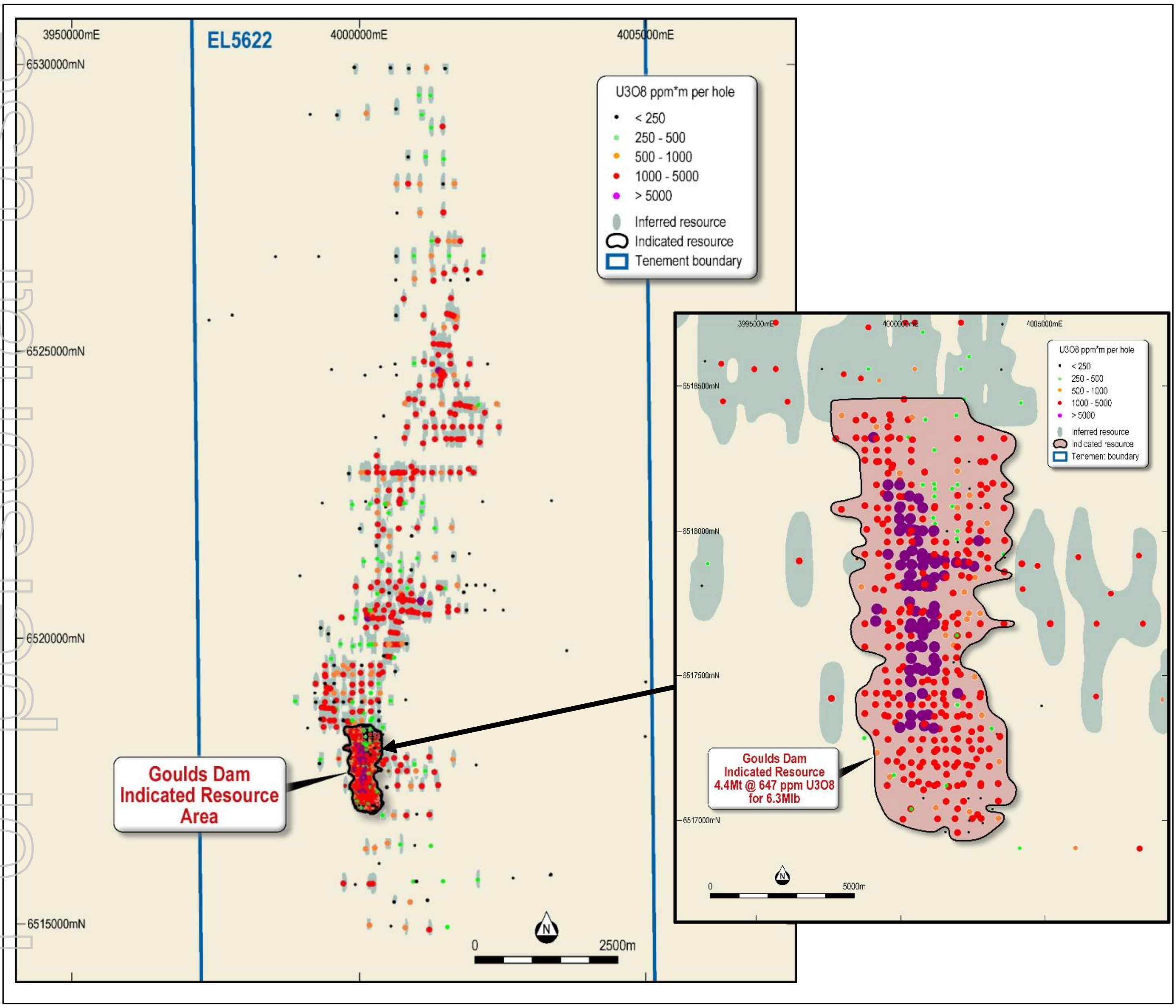

Figure 1: Location of the Gould's Dam Resource update > 250ppm U_3O_8 (left) and extents of the of the Indicated region (right). Coloured dots are accumulation of grade x thickness (ppm x m) of intercepts used in the resource.

Analysis of the drilling indicates the significant potential for additional infill and trend extent to the Gould's Dam mineralisation, and the existing Exploration Target of between 10 to 20 Mt at grades of between 300ppm and 1200ppm eU_3O_8 for between 10 to 20mlb of contained U_3O_8 is in addition to this current JORC resource of 25Mlb of contained U_3O_8 (ASX: 8 December 2015).

The global Exploration Target for Boss's Honeymoon Uranium Project is currently estimated to between 42 to 100Mlbs of contained U_3O_8 (32Mt to 78Mt at a grade between 450 to 1400ppm U_3O_8) and in addition to the global resource of 53Mlb of contained U_3O_8. This Exploration Target is conceptual in nature and there has been insufficient exploration to estimate a Mineral Resource. It is uncertain if further exploration will result in the estimation of a Mineral Resource. For further information see ASX: 8 December 2015.

Resource Details

The updated Mineral Resource for the Gould's Dam Region is summarised below in Table 1, along with the previous January 2016 resource for the Honeymoon project region. The JORC Code 2012 reporting criteria and input parameters used for the resource estimate are shown in Appendix 1.

Table 1

Gould's Dam April 2016 Mineral Resource Update

Showing the Gould's Dam and the Previous January 2016 Honeymoon Resource

Reported Above a preferred 250ppm eU_3O_8 lower cut-off.

Classification	**Million Tonnes**	**eU3O8 (ppm)**	**Contained U_3O_8 (M Kg)**	**Contained U_3O_8 (M Lb)**
Gould's Dam (April 2016)				
Indicated	4.4	650	2.9	6.3
Inferred	17.7	480	8.5	18.7
Total	**22.1**	**510**	**11.3**	**25.0**
Honeymoon (January 2015)[1]				
Measured	1.7	1720	3.0	6.5
Indicated	1.5	1270	1.92	4.24
Inferred	12.0	640	7.62	16.8
Total	**15.2**	**820**	**12.50**	**27.6**
Global Honeymoon Uranium Project (Western and Eastern Tenement Regions)				
Measured	1.7	1720	2.95	6.5
Indicated	5.9	810	4.8	10.6
Inferred	29.6	540	16.1	35.5
Total	**37.3**	**640**	**23.8**	**52.5**

Note: Figures have been rounded. [1]Quoted resources have been adjusted to exclude previous production of approximately 335t of U_3O_8. [1]The Honeymoon resource update was previously announced on 20 January 2016.

Several generations of gamma data and the results of chemical analysis of two sonic core holes were used to determine the optimum calibration regime to use for the pfn grade data and to ensure an appropriate plus 100ppm eU_3O_8 grade response. Importantly, analysis of sonic coring from two holes undertaken in 2011 indicate the potential for a positive disequilibrium in this region (up to 170%) (Figure 2). Further sonic drilling is required to investigate if this is more pervasive across the deposit, if so this could have a positive impact on the grade assessment.

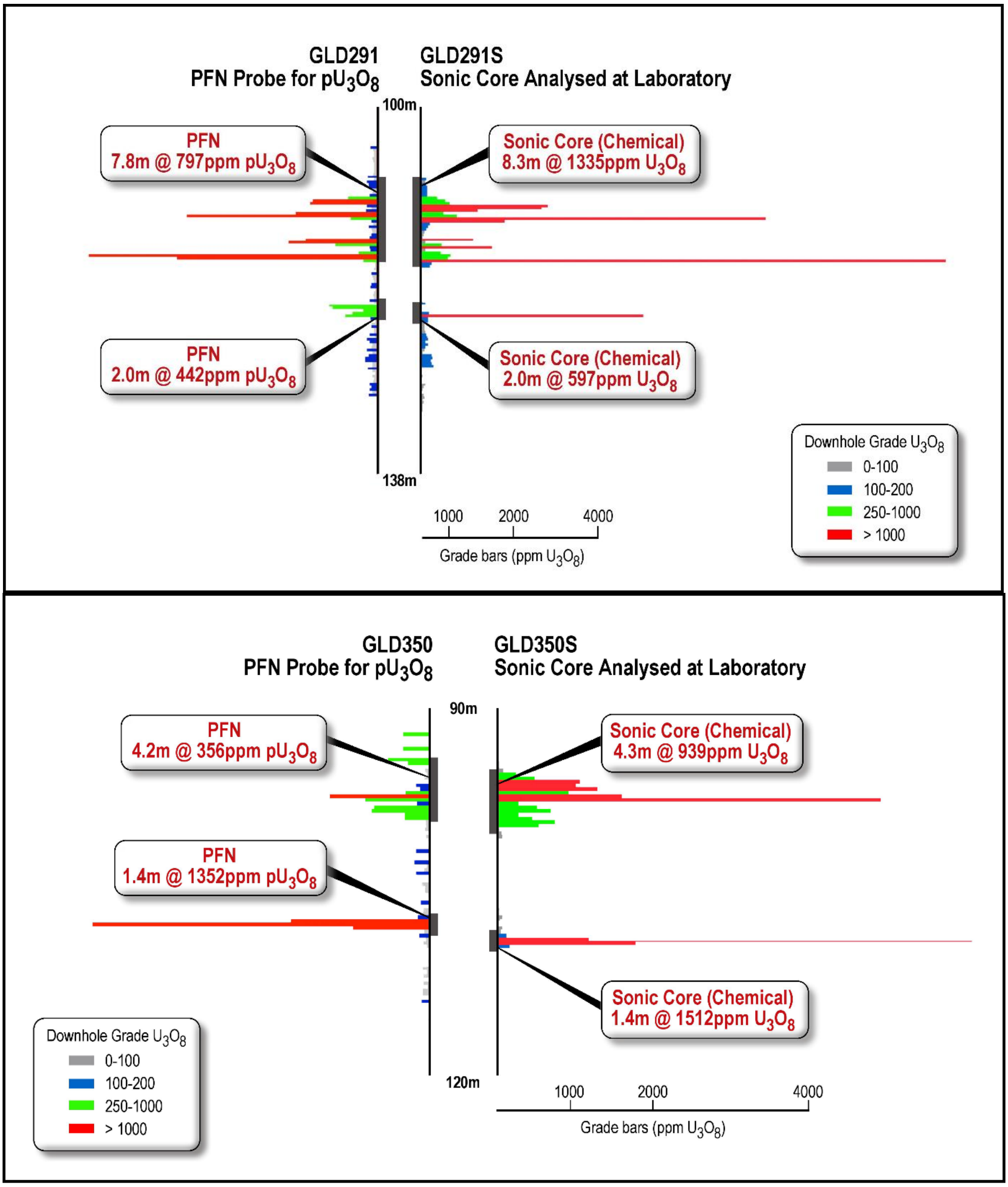

Figure 2: Summary sections showing the strong positive disequilibrium experienced with the two sonic holes drilled within the Gould's Dam deposit. The original PFN logged holes (GLD291 and GLD350) are shown on the left hand side and the chemically assayed sonic twin holes (GLD291S and GLD350) are shown on the right hand side. The results from these two holes indicate that the PFN calibration is producing realistic interval thicknesses and may under estimate grade.

Data and Resource Estimation Methodology

The Gould's Dam deposit is palaeochannel-hosted sandstone-type uranium mineralisation. It is hosted by the Billeroo Palaeochannel composed by fluvial sediments, mainly sandstones intercalated with clay beds, of the Tertiary aged Eyre Formation.

The palaeochannel is mapped using the EM survey and the down-hole electric survey allowing to undertake a detailed litho-stratigraphic interpretation of the sedimentary sequence infilling the palaeochannel.

The Resource estimate for Gould's Dam is based on the 937 rotary-mud drill holes (total drilled length is 128,365 m) which were surveyed utilising prompt-fission neutrons (PFN) instrument for pU_3O_8 grade (125 holes for 16,704m) and a gamma-probe for the eU_3O_8 grade (812 holes for 111,661m).

Drill spacing ranges from 20-40m by 40m in the Indicated portion of the Resource and 100m x 200m up to 200m x 500m in the Inferred portion of the Resource.

All tools were maintained by specialised electronic companies in Adelaide, including Geoscience Australia Pty Ltd and CIRA Pty Ltd.

Capturing of the digital data was made following the standard industry procedures for geophysical logging of the drill holes and recalculation the geophysical logs to eU_3O_8 (from the gamma-ray logs) and pU_3O_8 (from the PFN instruments) grades.

Data quality assurance has included a regular calibration of all instruments which was done using calibration pits at the Honeymoon plant site and externally at the certified calibration facilities at Glenside, Conyngham St, Adelaide.

The Resources were estimated as 3D block models. The U_3O_8 grade was estimated into blocks of 5m x 5m x 0.5m (Indicated Resource, drilling grid is approximately 40 x 40 m) and 10m x 10m x 0.5m (Inferred Resource, drilling grid is approximately 140 E-W x 250 N-S m).

Estimation of the Indicated Resource was made by constraining the mineralised bodies by the 3D wireframes delineated at the 100 ppm U_3O_8 cut off value. The U_3O_8 grade of the constrained bodies were estimated geostatistically using the Localised Uniform Conditioning (LUC) method which was enhanced by 'unfolding' (top-flattening) of the domains.

Wireframes were not used for the Inferred Resource which was constrained by horizontally extrapolating the mineralised intersections using nearest neighbor algorithm.

LUC methodology requires initial estimation of the grades of the large panels which are then geostatistically transformed into the smaller blocks. In this study the panels of 50x50x0.5m were used for the Indicated Resource which were transformed using LUC method into the blocks of 5x5x0.5m. The Inferred Resource was estimated using 100x100x0.5m panels and blocks of 10x10x0.5m.

The panels were estimated by selecting the composites at the 100 ppm U_3O_8 cut-off which were interpolated and extrapolated into the panels. First pass interpolation of the data is made using Ordinary kriging. Second pass, when extrapolation of the data was more common, is made using the Simple kriging methods. Extrapolation of the Inferred Resource was made to the distance of approximately 200-180m (N-S) and 80-60m (E-W).

The estimated Resources are reported at a cut-off of 250 ppm U_3O_8. This is based on a comparative analysis of the cut-off grades at the ISL-uranium projects in Australia and in the world and in general is comparable with the industry practices. It is conservative in comparison with the uranium-ISL operations in Kazakhstan where cut-off is 100 ppm U_3O_8.

Resources are classified into the Indicated and Inferred categories depending on their drilling grids. Choice of the optimal grids was supported by the geostatistical analysis of the estimation uncertainties undertaken at the Honeymoon deposit. Based on that study, the drilling grids recommended for classification Mineral Resources at the Honeymoon and Gould's Dam deposits are as follows:

Measured	Indicated	Inferred
40-20 x 20	80-40 x 40-20	120 x 40

Thus, the part of the Gould's Dam deposit which is drilled as 40 x 40m grid can be classified as Indicated Resource. Mineralisation located outside of this area is classified as Inferred Resource.

About the Honeymoon Uranium Project

The Honeymoon Uranium Project (Figure 3) is located in South Australia, approximately 80km north-west from the town of Broken Hill near the SA / NSW border. The Project consists of 1 granted Mining Lease, 5 granted Exploration Licenses, 8 Retention Leases and 2 Miscellaneous Purposes Licenses.

There are 2 main exploration regions: the Eastern Region (ELs 5215 and 5621) which hosts the Honeymoon, Brooks Dam and East Kalkaroo Resources; and the Western Region (ELs 5043, 5623 and 5622) which hosts the Gould's Dam and Billeroo deposits.

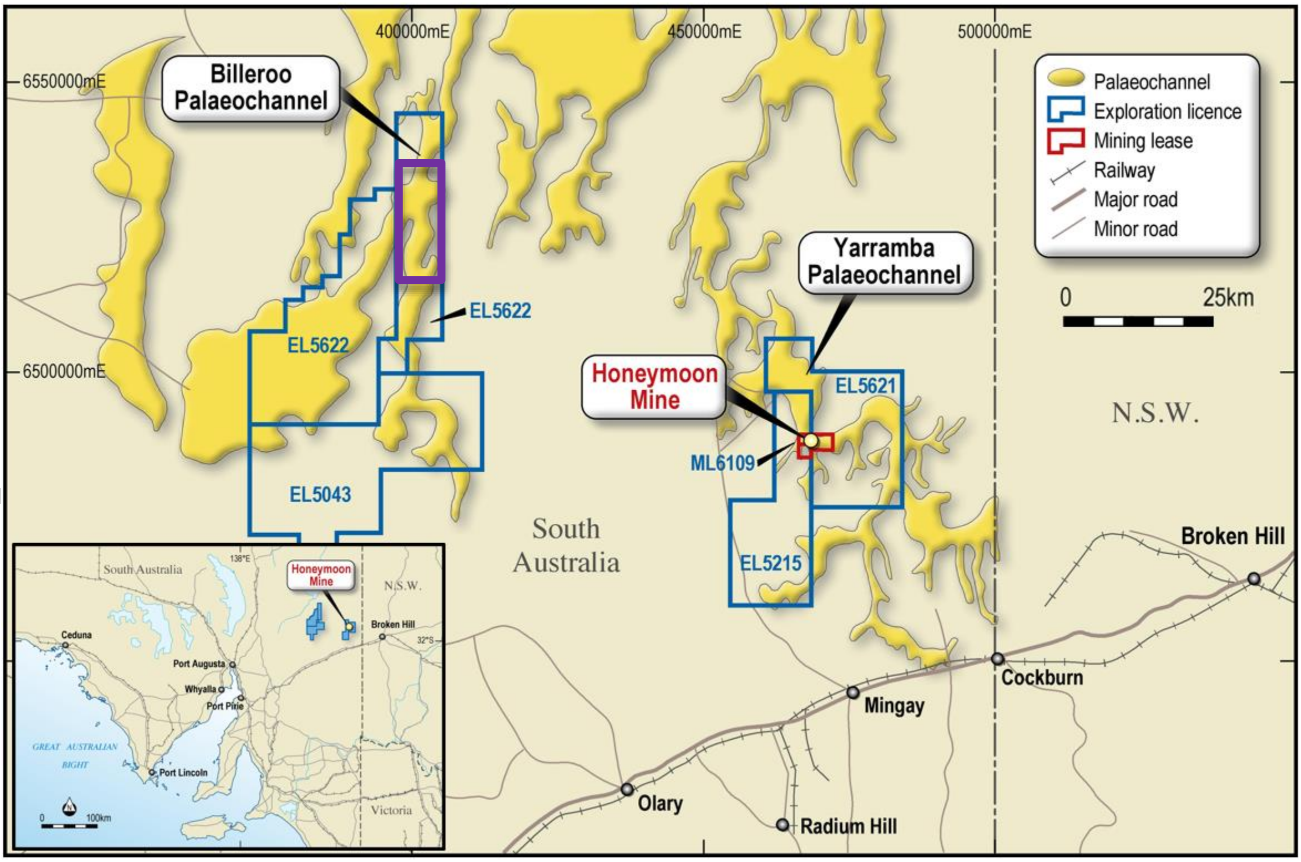

Figure 3: Honeymoon Uranium Project. The yellow shaded regions represent palaeodrainage channels which have potential to host uranium mineralisation and are the focus of exploration efforts. Gould's Dam Resource Area shown in purple rectangle

Exploration Team

Dr Marat Abzalov

Dr Abzalov graduated with High Distinction from the Kazan University in Russia in 1983 and obtained his PhD (Geology) in 1987 from St. Petersburg University, Russia, completing a thesis on magmatic nickel sulphide near the western Russian border with Finland. He has undertaken post-graduate studies in Applied Mathematics at Murdoch University, Perth, and Geostatistics at the Centre of Geostatistique, Fontainebleau, France.

With over 30 years of post-graduate experience in geology, Dr Abzalov's work experience includes the Russian Academy of Sciences, WMC Resources where his last role was Geology Manager – Projects, and Rio Tinto, where he held the roles of Manager – Geostatistical Consultant and Exploration Manager – New Opportunities (Eurasia) AND where he predominantly reviewed ISL uranium projects in Kazakhstan and the USA.

During his professional career, Dr Abzalov has worked on 12 uranium projects worldwide, notably:

- Rossing (Namibia) - resource model for a long term mine plan
- Olympic Dam (Australia) - pre-feasibility study
- Ranger (Australia) - optimisation resource definition drilling programme
- Khan (Jordan) – technical director responsible for all aspects from conceptual exploration model to resource definition drilling
- Budenovskoe (Kazakhstan) - identified acquisition opportunity for Rio Tinto
- Sweetwater (USA) - development of a new geochemical exploration approach

Mr Neil Inwood

Neil Inwood is a professional geologist with 20 years' multi-commodity project and consulting experience in Australia, Africa, USA, Europe, South America and Central Asia. Neil has a BSc in Geology from Curtin University, an MSc in Geology from the University of Western Australia and has studied geostatistics at Edith Cowan University.

Neil is also the Geology Manager for Cradle Resources and was a Principal Consultant with the international mining consultancy group, Coffey Mining, and was the Competent Person (ASX) / Qualified Person (TSX) for a variety of international uranium, gold, nickel, base metal and iron ore projects. Neil has consulted on uranium projects in Australia, Czech Republic, Columbia, Hungary, Namibia and the USA and was the lead resource consultant on the world-class Husab uranium deposit in Namibia. Other uranium projects include:

- Extract Resources - the Husab Uranium project in Namibia
- Bannerman Resources - Etango Uranium Project in Namibia
- Deep Yellow - Namibia and Australian Projects
- Energia - Nyang ISL Project in Western Australia
- Wildhorse Energy Ltd - Pecs Uranium project in Hungary
- U3O8 Corp - Argentine and Brazilian U Projects (Berlin Project)
- Atom Energy - Utah Projects

Honeymoon Geology

The Honeymoon Uranium Project is located in the southern part of the Callabonna sub-basin in South Australia. Uranium mineralisation within the project area is hosted by the Yarramba and Billeroo palaeochannels (Figure 4). These consist of Palaeogene age palaeovalleys filled by a sequence of inter-bedded sand, silt and clay). Thickness of the palaeochannels at Honeymoon deposit area reaches a maximum of 55m thick, and is around a depth from surface of approximately 110 metres.

The uranium mineralisation represents a classic basal channel type sandstone-hosted uranium roll-front model. This model implies the movement of oxidised, uranium-bearing fluid through a largely reduced aquifer, with mineralisation occurring at the redox front of the fluid. A geochemical zonation is associated with the roll front, including oxidation of the sands upstream (orange and yellow limonite) and abundance of pyrite/marcasites and organic matter downstream. Mineralisation is associated with discreet accumulations of organic matter and pyrite within the palaeovalley sequence.

Distribution of the uranium accumulations within the palaeochannels is controlled by fluid pathways that have transported the dissolved uranium and the distribution of organic matter which served as reductants causing precipitation of uranium. Interplay of these two main factors has created a stacked geometry of the 'uranium rolls" commonly distributed as elongate pods along the strike of the palaeovalley. These features are similar to the uranium mineralisation styles seen in the Shinarump, Monitor Butte and Moss Back members of the Upper Triassic Chinle formation in the White Canyon areas of the uranium mining districts of South Eastern Utah USA.

The Company is not aware of any reason why the ASX would not allow trading in the Company's securities to recommence immediately.

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Competent Persons' Statements

The information in this report that relates to the Mineral Resources is based on information compiled by Dr. M. Abzalov, who is a Competent Person according to the JORC 2012 Code. Dr. M. Abzalov is a Fellow of Australasian Institute of Mining and Metallurgy. He has sufficient experience in estimation Resources of uranium mineralisation, and have a strong expertise in the all aspects of the data collection, interpretation and geostatistical analysis to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting Exploration Results, Mineral Resources and Ore Reserves'. Dr. M.Abzalov is employed as a director of Boss Resources. M. Abzalov consents to the inclusion in the report of the matters based on their information in the form and context in which it appears. The information regarding the Honeymoon Resource was initially reported to the ASX on 20 January 2016 and has not materially changed.

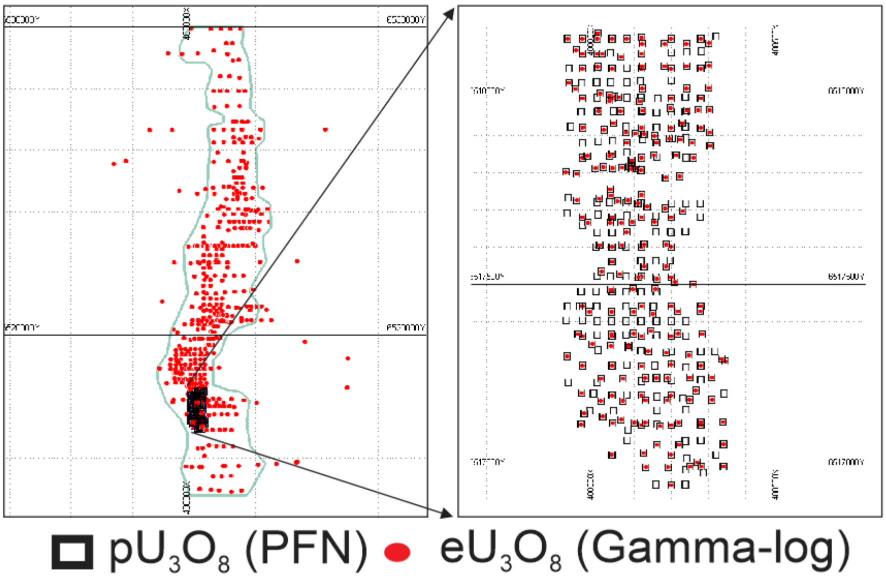
The information in this report that relates to the drillhole database used for the estimate is based on information compiled by Mr Jason Cherry, who is a Competent Person according to the JORC 2012 Code. Mr Cherry is a Member of the AIG. He has has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity undertaken to qualify as Competent Persons as defined in the 2012 edition of the "Australasian Code for Reporting of Mineral Resources and Ore Reserves". Mr Cherry has previously worked on the Goulds Dam project region. Mr Cherry consents to the inclusion in the report of the matters based on their information in the form and context in which it appears.

The information in this document that relates to the Honeymoon Mine Project Exploration Target and associated Exploration Data is based on information provided by Mr. Neil Inwood, who is a Fellow of the AUSIMM. Consent is granted only for the purposes of outlining an Exploration Target, no warranty is made on the use of the exploration information and data for other purposes. Mr Inwood is a consulting geologist and has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity undertaken to qualify as Competent Persons as defined in the 2012 edition of the "Australasian Code for Reporting of Mineral Resources and Ore Reserves". Mr. Inwood has consented to the inclusion of this information in this document in the form and context in which it appears. An entity associated with Mr Inwood has shares in Boss Resources. The information in this report regarding exploration results was initially reported to the ASX on 8 December 2015 and has not materially changed since.

Appendix 1.

Resource Statement and JORC Code Reporting Criteria Follows

Reporting criteria presented in the Section 1 of the JORC Table 1 (Sampling techniques and data)

Criteria of JORC Code 2012	**Reference to the Current Report**
	Comments / Findings
(1.1.) Sampling techniques	Two types of data (eU$_3$O$_8$ and pU$_3$O$_8$) were used for the current estimation resources of the uranium mineralisation distributed in the central part of the Billeroo palaeochannel (Fig. A1-1). The deposit is referred in the current report as Gould's Dam deposit and encompasses the prospects known in the past as Gould's Dam, Gould's Dam North, Billeroo and also includes parts of the palaeochannel which resources were not estimated in the past.  A1-1. Distribution of the uranium grades estimated using the down-hole Gamma-log instruments and the PFN analysers The methods used for estimating the uranium grades were as follows: eU$_3$O$_8$ grades were obtained using down-hole gamma-logs; pU$_3$O$_8$ grades are obtained by the down-hole PFN analyser. Downhole PFN reading spacing ranges from 2cm-10cm with a formation depth penetration of 25-40cm. Gamma, induction, resistivity and density tool reading spacing is between 1-5cm, with all data recorded in original LAS file format. The two methods have produced the similar average grades, estimated at 100 ppm cut-off. Global averages of the eU$_3$O$_8$ and pU$_3$O$_8$ have been estimated for the detailed study area containing comparative amounts of the gamma-log data and PFN based grades. Estimated averages are as follows: 438 ppm of eU$_3$O$_8$ and 459 ppm pU$_3$O$_8$

The eU_3O_8 and pU_3O_8 have been also compared by grouping the data into the 50m wide panels drawn across the deposit in the east-west direction. The average eU_3O_8 and pU_3O_8 grades of the panels were plotted vs. the Y coordinate of the panel's centres (Fig. A1-2) and this has confirmed that two methods produce in average similar estimates of the uranium grades.

Comparison of the panel grades has also revealed that eU_3O_8 values are commonly lower than pU_3O_8 grades estimated in the very high-grade intervals (> 5000 ppm U_3O_8) (Fig. A1-2). Given the priority of the PFN method, which is independent of the isotopic disequilibrium, it is suggested that the eU_3O_8 values are likely to be conditionally biased underestimating the high grade mineralisation.

At the short distances, eU_3O_8 and pU_3O_8 can significantly which is likely caused by a variable sign of the isotopic disequilibrium affecting the eU_3O_8 estimates.

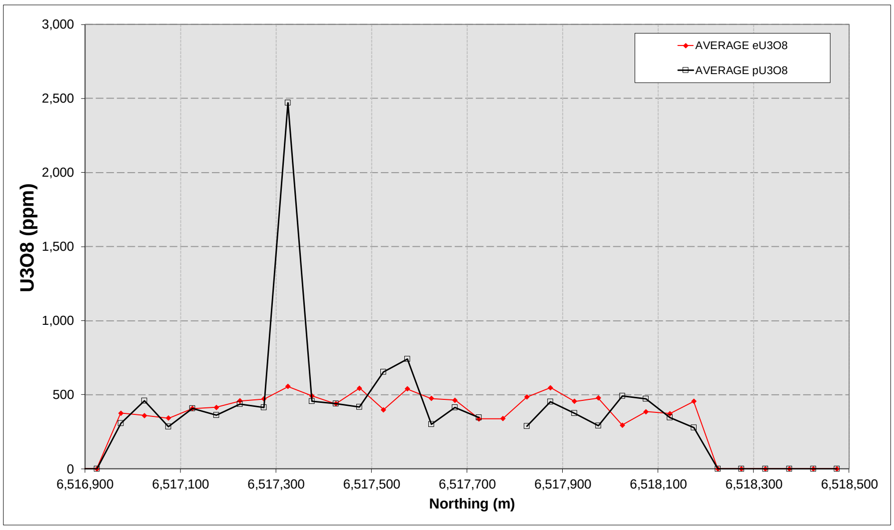


Fig. A1-2. Spider-diagram comparing eU_3O_8 and pU_3O_8 grades averaged by 50m panels drawn across the deposit in the E-W direction

All tools were maintained by specialised electronic companies in Adelaide, including Geoscience Australia Pty Ltd. And CIRA Pty Ltd.

Calibration was regularly undertaken using in-house equipment (calibration pits) available at the Honeymoon operation (plant) site and externally, at the certified calibration facilities at Glenside, Conyngham str., Adelaide

Standard industry procedures were used for geophysical logging of the drill holes and recalculation the geophysical logs to eU_3O_8 (from the gamma-ray logs) and pU_3O_8 (from the PFN instruments) grades

Drilling techniques (1.2.)

Resources of the studied deposit were developed mainly by using rotary mud drilling (100 mm to 228 mm in diameter) which were geophysically logged for determining the uranium grade.

Historic drilling:

- A total of 325 drill holes completed by a joint venture between Pacminex Pty Ltd, Mines Administration Pty Ltd and Teton Exporation Drilling Co between 1974-1980 over the Gould's Dam/Billeroo area are included in this resource estimate.
- In 1998 Southern Cross Resources completed 40 rotary mud drill holes for 5,597m, primarily over the Billeroo prospect.

	Modern drilling - Between September-November 2004, Thompson Drilling Pty Ltd completed a total of 117 rotary mud drill holes (both 120mm and 142mm diameter) over the Gould's Dam deposit on a nominal 80m grid. - A further 31 rotary mud drill holes for 4,080m (120mm diameter) were completed by Thompson's Drilling during July-September 2005, primarily in the Billeroo North area. - During August-October 2006, Thompson Drilling completed 97 rotary mud drill holes for 12,872m (120mm diameter) over the Gould's Dam North and Billeroo prospects. - In 2009, Watson's Drilling Pty Ltd completed 149 rotary mud drill holes for 19,856m (both 120mm and 133mm diameter) at 40m spacing to infill the existing 80m grid over the Gould's Dam deposit. - In 2010, Watson's Drilling Pty Ltd completed a 27 rotary mud hole program for 3,564m (133mm diameter) over the northern periphery of the Gould's Dam deposit. - Drilling in 2011 comprised two partially cored sonic drill holes for 264m (152mm diameter) completed by Boart Longyear within the Gould's Dam deposit. Both holes were drilled using the rotary mud technique to coring depth, with 48m of core collected from GLD291s (86-134m) and 30m of core from GLD350s (89-119m). During August-September 2012, Thompson's Drilling Pty Ltd completed 50 rotary mud drill holes for 6,520m (120mm diameter) over the Gould's Dam North prospect.
Drill sample recovery (1.3.)	This criterion is not directly applicable because the Gould's Dam resources were estimated using the grade values deduced from the down-hole geophysical logs. Drill cuttings of the rotary-mud drilling were collected to assists the lithological interpretation. They were collected at 2 m intervals, geologically logged and preserved as a physical record of the hole.
	Accurately calibrated geophysical instruments are the industry standards. This approach was used for definition resources of the Gould's Dam deposit.
	Not applicable
Logging (1.4.)	Chip samples, collected at 2 m intervals, have been photographed and geologically logged. Documentation has included colour, grain size, texture, sorting, alteration and oxidation state.
	Downhole electric logs (resistivity, conductivity and porosity) were systematically used through the palaeochannel.
	Al mineralised intervals were geologically logged And the logging standards were compliant with the industry standards
Sub-sampling techniques and sample preparation (1.5.)	Not applicable, because grade was deduced from down-hole geophysical logs.
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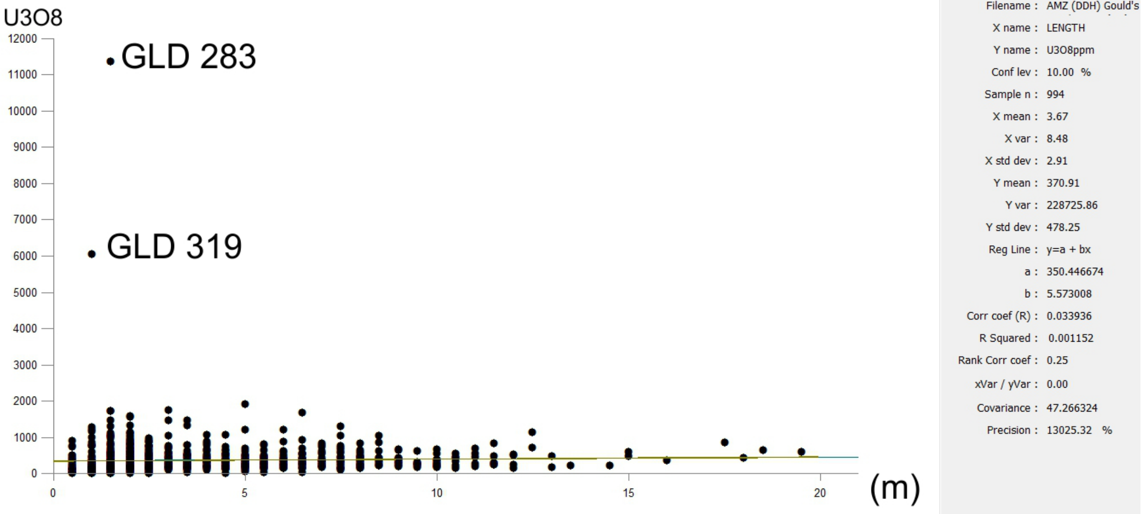
	Not applicable, because grade was deduced from down-hole geophysical logs.
	QAQC of the geophysical data has included systematic control of the depth logged and control of the recorded U_3O_8 grade values. The historic data were validated by the PFN logs (Fig. A1-2).
	Geophysical tools estimate uranium content at the large volumes, approximately 25 to 40 cm radius. The volume is sufficiently large allowing to obtain accurate measure of the grade

Quality of assay data and laboratory tests (1.6.)	Not applicable, because grade was deduced from down-hole geophysical logs.
	Geophysical tools used to collect data were as follows: • Auslog Gamma (with Guard) S422 • Induction (run with guard) S423 • Prompt Fission Neutron tool PFN#4 • Prompt Fission Neutron tool PFN#8 • Prompt Fission Neutron tool PFN#27 • Prompt Fission Neutron tool PFN#32 • Gamma combined with guard S058 • Auslog 3 arm calliper A326 Holes were logged in the direction down and up, which provided a good control of a logging consistency
	All geophysical tools were regularly calibrated, using in-house facilities and the certified laboratories in Adelaide. QAQC of the geophysical data has included systematic control of the depth logged and control of the recorded U_3O_8 grade values. • PFN Technology was originally developed as a downhole logging technique by Mobil R&D and Sandia Laboratories in the United States during the 1970's specifically to directly measure in-situ uranium grades in sandstone-hosted uranium deposits. Unlike historical gamma techniques, PFN directly measures the 235U isotope and therefore is not affected by radiometric disequilibrium. • Gamma tool calibrations were carried out both at a dedicated calibration pit installed at the Honeymoon Uranium Mine, and the Adelaide Model calibration facility in Glenside, South Australia. The calibration pit data was used to k-factor and dead time for equivalent uranium grade determination, with borehole size and fluid correction factors also applied where required. • The PFN tools were run at both the Honeymoon and Adelaide calibration pit facilities to determine the slope and offset calibration factors. A three pit method was used for the Adelaide models, with a four pit method utilized at the Honeymoon facility. During logging, correction factors for borehole size and formation moisture content are applied when required. • All historical gamma data was digitized and validated by Southern Cross Resources in 2002, along with all the relevant metadata (gamma tool serial number, operator and calibration factors) and compiled into a database. Holes were logged in both the down and up direction for depth check comparisons, with the up-run data used for final grade calculations. • Logging data is transferred from logging truck computers to the geological office as industry standard .LAS files. • Geological logs were both made on paper logs and later transferred to Excel spreadsheets, and directly into dedicated Excel geological logging templates.

	- Borehole logging was carried out by Southern Cross Resources/Uranium One Australia staff using purpose-built logging trucks between 2004-2010, while Borehole Wireline Pty Ltd was commissioned to carry out the borehole logging for the 2011-2012 drilling programs. - Company site geologists subsequently verify significant intersections from wireline logging during depth checking in WellCad software. - Copies of the primary LAS files, geological logs, chip tray photos and final interpretive WellCad logs are stored on the main server at the Honeymoon Mine site. The winches in the logging truck have their depth calibration checked periodically. This is made by running out approximately 100m of cable and measuring the rewinding cable against a tape measure. In addition, markers are placed on the cables which are checked on the computer at 50 and 100 metres. Since each individual tool run measures gamma, post logging depth matching is undertaken within WellCad® so each tool is adjusted as necessary to the reference. Precision of 10 cm applied to collar RLs and lithological boundary picks. A QAQC of PFN grades was undertaken by comparing PFN results with XRF assays of quarter core (Lawie, 2006). His report states that: "the volume of rock 'measured' by the PFN is 630 times that of ¼ core, which must improve the representivity of the sample, and hence lower the field sampling error."
Verification of sampling and assaying (1.7.)	- The site geologists supervising the drilling have routinely verified significant intersections from wireline logging during depth checking in WellCad software. - Two high grade intersections present at the Gould's Dam deposit, the drill hole GLD 283 and GLD 319 (Figs. A1-3 and A1-4).  Fig. A1-3: Scatter-diagram showing grade and thickness of the mineralised intersections

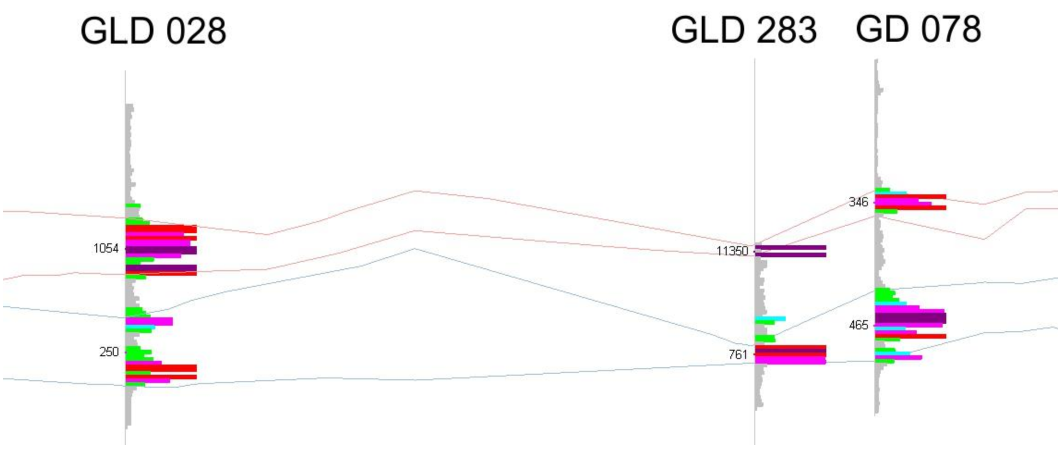


Fig. A1-4: Cross-section through the high grade mineralisation intersected by the drillholes GLD 283, GLD 028 and GD 078

8 pairs of the twin holes are available at the Gould' Dam deposit.

Mineralisation was compared using 100 ppm U3O8 cut-off (Table A1-1)

Average grades of the mineralisation is 339 and 325 ppm U3O8, which confirms that quality of the down-hole logged uranium grades is of a good quality and suitable for estimation resources.

Table A1-1: Comparison of the mineralisation intersected by the twin holes

BHID1	(1) U3O8, ppm	(1) Thickness, m	BHID2	(2) U3O8, ppm	(2) Thickness, m
BW093	286.06	16.5	GLD035	367.4	13.5
GLD113	435.32	2.5	GLD325	142.65	1
BW280	556.85	6	GLD229	852.32	7.5
GLD273	318.97	9	GLD275	132.77	3
BW279	337.07	11	GLD228	334.25	11.5
BW278	446.03	6.5	GLD227	427.93	7
PMX062	144.48	14	PMX062A	128.26	15
PMX063	188.72	12.5	PMX063A	214.96	12
average	**339.2**	**9.8**		**325.1**	**8.8**

Logging data is transferred from logging truck computers to servers in geological office as LAS files (an industry standard log file format)

Geological logs are entered on paper then transcribed on to excel spreadsheet. Logging was carried out by either in house U1A loggers or external logging contractors (Borehole Wireline Pty. Ltd. and Independent Logging services). Significant intersections were then verified by U1A site geologists.

Primary data is recorded directly to computer hard disk in the logging truck and transferred to a server at the end of the days logging. Each log is reviewed by the logger and a copy of the raw data file and the prepared log were then handed over to the site geologist. The site geologist will make any depth corrections required and then use the log to interpret geology.

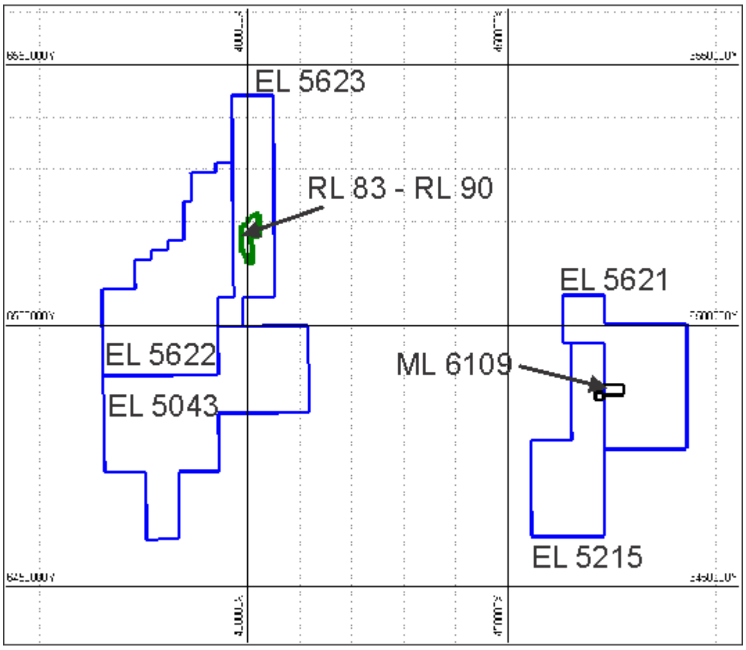
Copies of raw LAS files, geological logs of chip cuttings and final WellCad Logs are kept on the server

The site geologist make the depth corrections required and then use the log to interpret geology

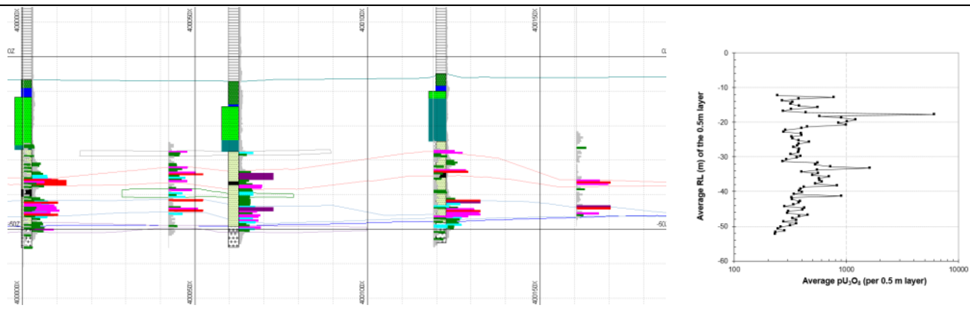
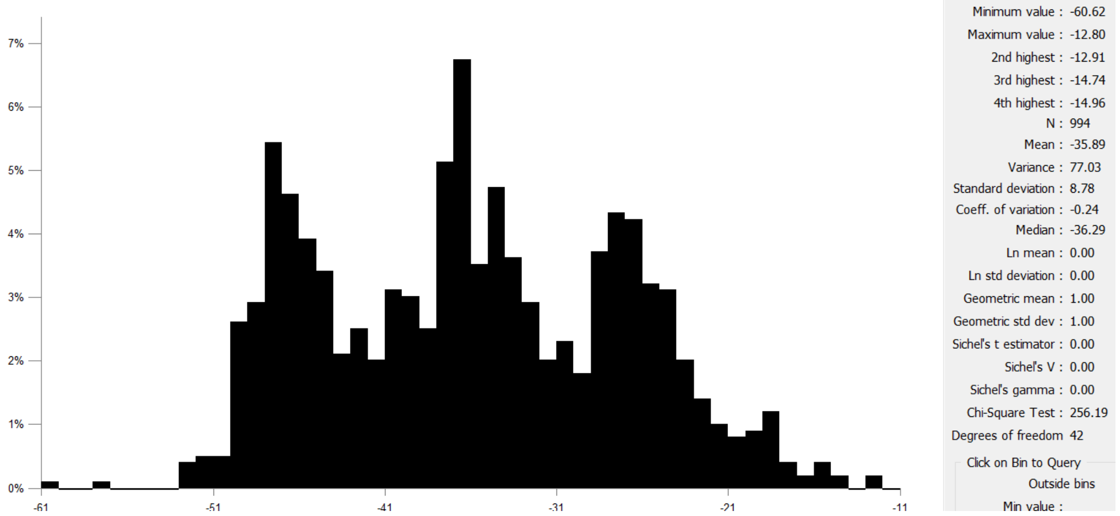
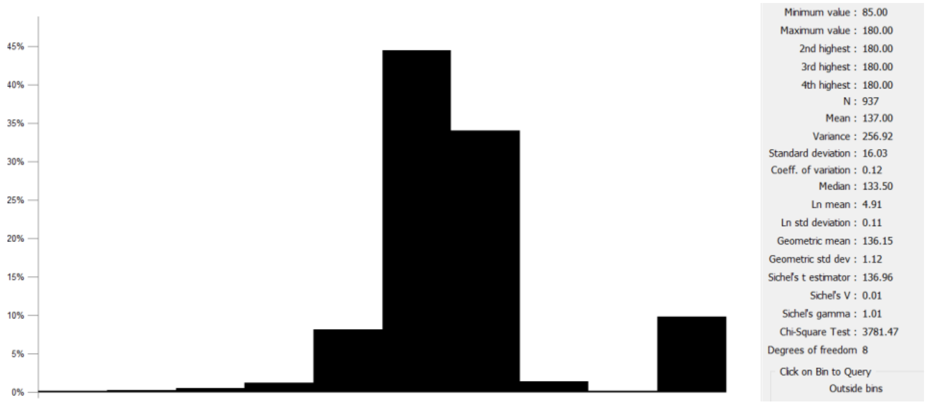
Location of data points (1.8.)	The drill hole collars positions were set out using a Garmin handheld GPS. After drilling, hole locations are picked up with a differential GPS system that is coupled to the Omnistar augmentation system to improve accuracy.
	The projection adopted for surveying is GDA 94, MGA zone 54 with AHD elevation. All surveys were tied to the existing registered base stations
	Topographic control was improved by Aerometrx Pty. Ltd flying 10cm pixel aerial photography which was rectified using registered survey points installed at site before plant construction began. Although this detailed DTM does not cover the Gould's Dam deposit area reported here, the detailed survey by Aerometrx has allowed to assess uncertainty of the topographic surface which was found insignificant and the older surface are suitable for using as a topographic control for the resource drilling location
Data spacing and distribution (1.9.)	Drill holes on the Gould's Dam deposit are spaced at an average of about 40 x 40 m in the detailed study area. Outside of this area the drill grid is broader, in average it is 140(E-W) x 250(N-S) m.
	Given the geostatisticaly estimated continuity of uranium grade in average (i.e. estimated using all data without separating it into the domains) is approximately 300m in the North-South direction and 100m in the East-West direction, the drilling grids used for delineation of the Gould's Dam deposit are suitable for estimation Mineral Resources
	Physical compositing of the samples was not used. Uranium grade deduced from the down-hole gamma and PFN logs were composited to 0.5 m composites.
Orientation of data in relation to geological structure (1.10.)	All holes are drilled vertically which provides an accurate intersection of the flat lying mineralised bodies
	Vertical drill holes were used due to the predominantly flat-lying ore bodies present throughout the Gould's Dam Project, with drill hole intercepts considered to be an accurate reflection of true vertical width.
Sample security (1.11.)	Down-hole logging data and deduced uranium grades are saved in the company database which securely stored on the company's server. All data transfer between logging truck and the database was made by authorized company personnel. Samples from the 2011 sonic core drilling program were transported from site to the assay laboratory in Adelaide by appropriately licensed Uranium One staff in accordance with the relevant ARPANSA guidelines.
Audits or reviews (1.12.)	PFN and Gamma-log data have been audited several times by independent consultants. The most recent reports are as follows: • Lawie, D, 2006 (ioGlobal) • Bampton, 2006 (ORES) • Skidmore, 2006 (Uranium One) • Jankowski, 2006 (SRK)

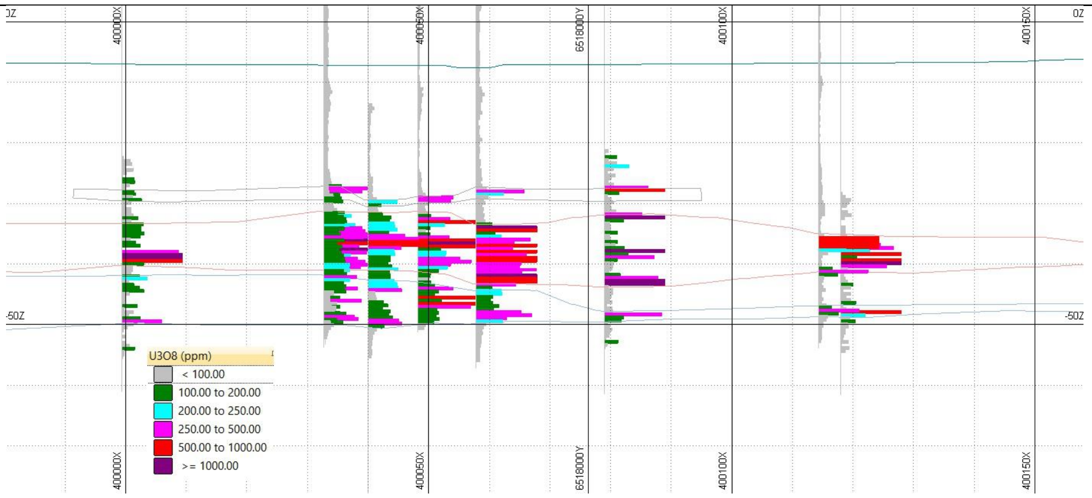
	- Valliant and Bergen, 2012 (RPA) All consultants have confirmed that data are of a good quality and suitable for estimation mineral resources Special programme of verification of the PFN based grades was undertaken in 2009. Results were as follows. “Two rotary mud holes from the 2009 drilling program at Gould’s Dam were twinned with sonic core holes in 2011. Comprehensive assay data from the 2011 sonic core was used to verify the interpretation of the electric logs, and for comparison to gamma-derived eU3O8 and PFN-derived U3O8. The result of comparing PFN data to chemical assay data from sonic core at Gould’s Dam suggests that at low-moderate grades (~0.10% – 0.50%), the PFN data is a relatively accurate reflection of the contained uranium mineralisation. However, at grades above 0.50% (in particular grades ≤1.00%) the PFN tool may be underestimating the contained uranium mineralisation” (J.Cherry, personal communication).

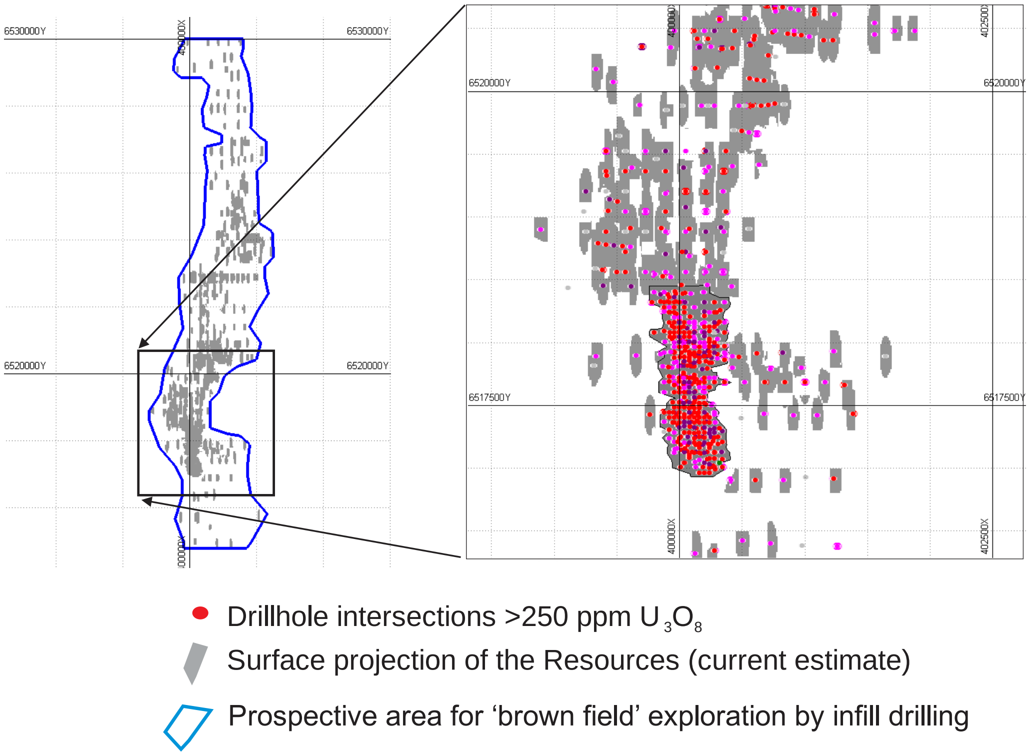
Reporting criteria presented in the Section 2 of the JORC Table 1 (Reporting of Exploration Results)

Criteria of JORC Code 2012	**Reference to the Current Report** **Comments / Findings**
Mineral tenement and land tenure status (2.1)	The entire project of the BOSS Resources consists of 1 granted Mining Lease, 5 granted Exploration Licenses, 8 Retention Leases and 2 Miscellaneous Purposes Licenses (Fig. A2-1).  Fig. A2-1: Location of the leases hold by BOSS Resources in the Collabonna uranium sub-basin Resources of the Gould's Dam deposit that are estimated in the current study and reported here are covered by the Retention Leases RL83 – RL90 and by the Exploration License EL 5623 (Fig. A2-1).
	Retention Leases expire in November, 2017. Exploration license EL5623 expires in May 2017.
Exploration done by other parties (2.2)	The Gould's Dam deposit and surrounding areas of the Billeroo palaeochannel have been intensely explored and systematically drilled starting from 1971. A detailed airborne electro-magnetic survey was conducted in 2002 which has allowed to accurately delineate palaeochannels in the project area. The resources were estimated several times. The resource estimation reports are: • Stoker (2001). In 2001, P. Stoker has estimated resources of the Gould's Dam (5.6 Mt @ 0.045% U3O8) and Billeroo (12 Mt @ 0.030% U3O8) prospects, which totally yields 6,100 t U3O8 based on no minimum thickness and a cut-off grade of 0.01% • Bampton (2004). In 2004, K.Bampton estimated resources of the Gould's Dam prospect as 1.7 Mt, grading 0.12% U3O8, containing 2,000 t U3O8 based on data from drilling programs in 2004. This was based mainly on the new drilling data and the pU3O8 grades obtained using PFN tool. • Bampton (2005). In 2005, K.Bampton has revised his estimate of the Gould's Dam resources and reported it as 1.82 Mt, grading 0.112% U3O8, which yields 2,000 t U3O8.

	Cherry and Faulkner (2013). In 2013 J.Cherry has estimated the maiden resources of the Gould's Dam North (GDN) prospect using 2D polygonal method and grade*tonnage contours. They have reported resources of the GDN prospect as 1.84 Mt @ 0.069% U3O8 which yields 1,270 t U3O8
Geology (2.3)	• The Gould's Dam deposit is confined to the Billeroo Palaeochannel which is composed by a Tertiary aged sequence of inter-bedded sand, silt and clay up. The sequence is approximately 55m thick and was deposited as a result of a relative fall in the base level during the Early Eocene which was related to a a global tectonic subsidence commencing in the late Palaeocene. The Frome Embayment (also called the Callabonna Sub-basin) forms the southern portion of the Lake Eyre Basin within South Australia. The generalised stratigraphy of the Lake Eyre Basin is subdivided into three units: the late Palaeocene to middle Eocene Eyre Formation, the late Oligocene to Miocene Namba Formation and Pliocene- Quaternary sediments. The exploration model applicable to the Gould's Dam Project is palaeochannel-hosted sandstone-type uranium mineralisation, which is associated with typically discrete accumulations of organic material (and subsequent pyrite formation) within the early Tertiary Eyre Formation fluvial sediments. Recent work by Uranium One Australia suggests the locations of these organic matter accumulations within the palaeochannel sequence appear to be closely associated with palaeotopographic basement features, such as basement "highs" or "ridges", which helped create relatively complex flow environments during deposition of the lower Eyre Formation. The formation of bar deposits and areas of stagnation within these complex flow environments provided the opportunity for organic material to accumulate (and for the subsequent formation of pyrite), which in turn creates ideal redox conditions for uranium mineralisation.
Drill hole Information (2.4)	Resource database contains 937 drill holes and is too large for being included in this table
	The deposit covers the area extending from approximately 6,515,000 mN to 6,530,000 mN and approximately 1.5 km wide, from 400,000mE to 402,000mE (Fig. A1-1)
	The area is flat with an average RL of 70m
	All holes were drilled vertically
	Down hole length of the intersections change in the range of 0.5 - 19.5 m with an average 3.7 m (Figs. A2-2). Intersections are located in the Eyre Formation at the depth of 130 to 80m below surface (RLs interval -60 to -12m) (Fig. A2-3)

	 Fig. A2-2: Cross-section of the deposit and the vertical profile of the U3O8 grade (averaged by 0.5m layers)  Minimum value : -60.62 Maximum value : -12.80 2nd highest : -12.91 3rd highest : -14.74 4th highest : -14.96 N : 994 Mean : -35.89 Variance : 77.03 Standard deviation : 8.78 Coeff. of variation : -0.24 Median : -36.29 Ln mean : 0.00 Ln std deviation : 0.00 Geometric mean : 1.00 Geometric std dev : 1.00 Sichel's t estimator : 0.00 Sichel's V : 0.00 Sichel's gamma : 0.00 Chi-Square Test : 256.19 Degrees of freedom 42 Fig. A2-3: Histogram of the intersection RLs
	Average hole length is approximately 135 m  Minimum value : 85.00 Maximum value : 180.00 2nd highest : 180.00 3rd highest : 180.00 4th highest : 180.00 N : 937 Mean : 137.00 Variance : 256.92 Standard deviation : 16.03 Coeff. of variation : 0.12 Median : 133.50 Ln mean : 4.91 Ln std deviation : 0.11 Geometric mean : 136.15 Geometric std dev : 1.12 Sichel's t estimator : 136.96 Sichel's V : 0.01 Sichel's gamma : 1.01 Chi-Square Test : 3781.47 Degrees of freedom 8 Fig A2-4: Histogram of the drill hole lengths
	Not applicable
Data aggregation methods (2.5)	Not applicable. It will be reported in the sections devoted to the Resource estimation parameters

	Not applicable
	Not applicable
Relationship between mineralisation widths and intercept lengths (2.6)	Not applicable
	Drill traverses are oriented at right angle across the domain strike. Holes are drilled vertically down which is optimal for drilling horizontal lenses of uranium mineralisation
	Not applicable
Diagrams (2.7)	 Fig. A2-5: Representative cross-section of the high grade mineralisation intersected by several drill holes
Balanced reporting (2.8)	Not applicable
Other substantive exploration data (2.9)	Adelaide Microscopy (University of Adelaide) has carried out Scanning Electron Microscope (SEM) analysis on core samples from the 2011 sonic coring program. This work has been very successful in helping to identify the nature and association of uranium mineralisation at Gould's Dam. • Uranium mineralisation is commonly associated with pyrite, often forming either very fine (≤20µm) disseminated alteration "halos" around remnant pyrite grains or more pervasive alteration "patches" within the silty sand matrix. The extent of uranium "replacement" of pyrite ranges from partial to pervasive, and the uranium mineral species is likely to be either uraninite or coffinite. • In some cases, multiple generations of pyrite can be observed, ranging from early framboidal grains to subhedral, almost flaky looking grains. In the example discussed within this report, the early framboidal pyrite was subjected to uranium "alteration" while the latter pyrite was essentially unaltered. This suggests that some pyrite has formed after the main uranium mineralisation event and as a result is not directly associated with uranium. Very fine grained to "nodule" sized uranium is also found disseminated throughout organic-rich matrix silts. The extent of mineralisation can range from scattered to quite pervasive, and x-ray spectrum tests suggest the uranium species is either uraninite or coffinite.

Further work (2.10)	Current study was focused on estimation resources of the Gould's Dam deposit which is located within the median part of the Billeroo palaeochannel. Estimated Inferred resources are currently constrained by the available drill holes and does not represent an actual termination of the uranium rolls. Thus, it is likely that mineralisation can be further extended by infilling the current drilling grid and also along the strike. Several drill holes drilled along the strike of the Gould's Dam deposit and in the western sleeve of the braided Billeroo palaeochannel (Fig. A2-6) have intersected low grade uranium (mineralisation suggesting that the domain can be extended along the strike.
	Further increase of the resources is likely and can be achieved by the brown field exploration by infilling the current drill grid at the Gould's Dam deposit (Fig. A2-6). It is also likely that new mineralised bodies can be found in the Billeroo palaeochannel outside of the Gould's Dam deposit area (Fig. A2-7).  Fig A2-6: Distribution of the Gould's Dam resources and the drillholes available for estimation resources

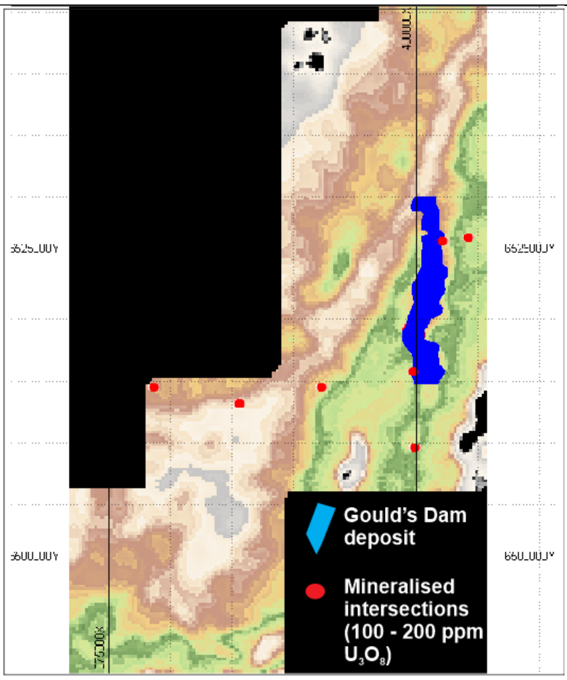


Fig A2-7: Map of the Billeroo Palaeochannel area showing uranium mineralisation intersected by the drilling outside of the Gould’s Dam deposit

Reporting criteria presented in the Section 3 of the JORC Table 1 (Estimation and Reporting of Mineral Resources)

Criteria of JORC Code 2012	**Reference to the Current Report**
	Comments / Findings
Database integrity (3.1)	• Historic logging was collected onto paper via analog chart. The analog charts were digitised during the late 1990's. The library of the analog charts was kept by U1A and has been sighted by the CP. • Geological logs were handwritten onto paper forms and later transcribed into digital form via input into spreadsheet, the original handwritten logs form part of the library. • Downhole Logging data for all recent drilling has been in digital format directly into industry standard LAS files stored on servers. • Geological logging was done on paper, then entered into Excel spreadsheets or entered directly into Excel. All downhole logging data was loaded into a Microsoft Access database and a series of checks undertaken where no serious transcription errors have been found.
	Queries have been run on the data set to check for missing intervals, extreme values (high-low), logging speed too high and any suspect data has been checked or removed if needed.
Site visits (3.2)	M.Abzalov has visited site as part of the technical due diligence of the project carried by BOSS Resources in 2015.
	Not applicable
Geological interpretation (3.3)	Palaeochannel type uranium mineralisation is confidently interpreted from the available data. The density of the drilling is sufficient for accurate interpretation and constraining the uranium rolls
	The data includes geological and geophysical drill hole logs and EM survey of the area that has allowed to create an accurate map of the palaeochannel. The EM image of the palaeochannel was presented in the previous section (Fig. A2-7)
	The current interpretation of the geometry of the mineralised bodies is largely empirical and is based on delineation of the uranium mineralisation between the drill holes. Because of the small distances between the drill holes at the detailed study area of the Gould's Dam deposit, approximately 40 x 40 m, there appears to be limited scope for alternative geological interpretations for this area. Outside of the detailed study area drill spacing is significantly broader therefore geometry of the mineralisation is poorly understood. In order to minimise the risk of excessive smearing of the mineralised intersections their extrapolation was limited to the distances approximately 200-180m(N-S) x 60-80m(W-E) assuring that at least 2 samples are available for estimation.
	Uranium mineralisation at the Billeroo palaeochannel is distributed within the lower part of the Eyre formation. For guiding the resource estimation, the wireframe of the palaeochannel's base was generated using the drill holes drilled into the Willyama Supergroup (basement) and also wireframes of the stratigraphic contacts with the palaeochannel
	Mineralisation is distributed within the median part of the palaeochannel and occurs as a tabular shaped lenses elongated along the strike of palaeochannel High grade shoots are smaller and surrounded by halo of the lower grade mineralisation.

Dimensions (3.4)	This was presented in the previous section (Figs A2-6 and A2-7). Strike length measured along the palaeochannel is approximately 15,000 metres. Width of mineralisation measured across the strike is approximately 2,000 m.
Estimation and modelling techniques (3.5)	Resources were estimated as 3D model constructed by the blocks of 5x5x0.5m for the detailed study area where drilling grid is 40 x 40 m and by the blocks 10x10x0.5m outside of the detailed area, where drilling grid is in approximately 140(E-W) x 250(N-S) m. The procedure for estimating U_3O_8 grade of the detailed area (this was reported as Indicated resources) into the blocks of 5m x 5m x 0.5m is as follows: • Composite the drill hole data into 0.5m composites • Undertake cross-sectional interpretation with an objective to delineate the mineralised bodies. Seven separate layers (domains) have been identified and delineated using 100 ppm U_3O_8 as a cut off value, and numbered as: 7, 77, 211, 700, 771, 772, 773. • The codes of the mineralize body was assigned to the composited drill holes file. • Create the empty block model (prototype model) using 5x5x0.5 cells using the wireframes of the mineralized bodies. • Unfold of the composited data and the empty block model. This was made separately for each body (domain). All further geostatistical studies are carried in the unfolded space, by the domains. • Variography analysis of the U_3O_8 grades (PFN and Gamma grades are used together). • Estimation was made using LUC method. This requires obtaining grade of the large panels and then non-linear geostatistical transformation of the panel grades into the smaller blocks (5x5x0.5 in this case) using UC/LUC methodology. For the detailed area the panels were 50x50x0.5m blocks. The panels were estimated using Ordinary (1st pass) and Simple (2nd pass) kriging methods. • The panels have been partitioned onto the 5x5x0.5m blocks • Uniform Conditioning (UC) of the panels. This has required additional tests, data transformations and geostatistical modelling: ○ verification of the diffusive grade distribution model and multi-Gaussianity property of the U_3O_8 variable ○ declustering of the data in order to obtain non-biased estimate of the data mean ○ modelling the distribution of the 10x10x0.5m blocks applying support correction to the punctual anamorphosis ○ modelling the variograms of the U_3O_8 values, which was made by transforming them to the Gaussian variable, constructing the Gaussian variograms and then back-transforming to the raw variable variograms ○ estimating dispersion variance for the panels grade estimates ○ undertake UC estimate of the panels. • Estimate grade of the 5x5x0.5m blocks using Localised Uniform Conditioning algorithm. The blocks were ranked using Ordinary kriging.

Outside of the detailed area the procedure for estimating U_3O_8 grade was modified in order to adjust it to a broader drilling grid.

The U_3O_8 grade was estimated using LUC method in to the blocks of 10x10x0.5m by transforming the grade of the 100 x 100 x 0.5m panels.

Wireframes were not used for delineating domains, which were constrained using nearest neighbor algorithm extrapolating the mineralised intersections.

Estimation was made by selecting the composites at the 100 ppm U_3O_8 cut-off which were interpolated and extrapolated into the panels of 100 x 100 x 0.5m

Extrapolation of Inferred resources was made to the distances approximately 200-180m (N-S) and 80-60m (E-W).

In the past resources at the Gould's Dam were estimated in 2D using polygonal method. Resources were published using cut-off 500 ppm U_3O_8.

The new estimate is made as a 3D geostatistical model and uses more data for estimation covering significantly larger areas. This is the main reason for the increased tonnage (Table A3-1).

The chosen modelling technique has also allowed to moderately extrapolate mineralisation in the broadly drilled areas, constraining the distances of extrapolation by the variogram parameters, which has allowed to less conservatively estimate Inferred resources.

Table A3-1: Resources of the Gould's Dam deposit

	Tonnage (Mt)	Grade (U3O8 ppm)	Metal U3O8 (Kt)
Inferred (@250 U3O8 ppm)	17.7	480	8.5
Indicated (@250 U3O8 ppm)	4.4	647	2.9
TOTAL	**22.1**	**513**	**11.3**
past estimate (2001, 2005 and 2013)	**15.5**	**440**	**6.9**

Recovery by-products not envisaged

Potential deleterious components are

- Carbonates (not reported)
- Sulphides
- Organic carbon
- Clay

The impact of the deleterious components was not adequately studied in the past and represents one of the main objectives

for future studies by the BOSS Resources.

Resources are estimated using LUC method.

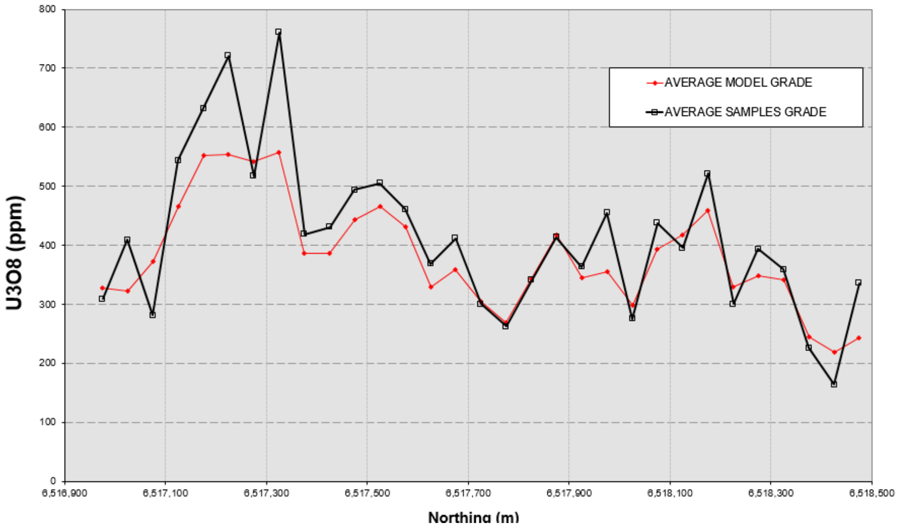
Indicated resources: Panels 50x50x0.5m transformed into blocks of 5x5x0.5m. Drilling grid 40x40m.

Inferred resources where drilling grid 140 x 250 m were estimated into the panels of 100 x 100 x 0.5m which were transformed into the blocks of 10x10x0.5m.

Selectivity of the ISL is approximately

50 x 50 x 5m which corresponds to a size of a single leach cell.

The model uses significantly smaller blocks, which are needed to create an optimal wellfield pattern.

	Not applicable. The current study is focused on estimating of a single variable, U_3O_8.
	For guiding the resource estimation, the wireframe of the palaeochannel's top and base were generated and also wireframes of the stratigraphic contacts with the palaeochannel. Drill holes were lithologically logged and stratigraphic units interpreted. This was used for interpretation of the mineralised intersections on the cross-sections and delineating the mineralised bodies.
	Top cut was not applied. Only two outliers occur in the database (Fig. A1-3) which are confined to the high grade lenses confirmed by several drill holes (e.g. Fig. A1-3). Excessive smearing of this anomalously high grade samples is minimised by search architecture that uses short distances for the 1st pass and Simple kriging algorithm at the second pass. This procedure has allowed to obtain a moderately conservative estimates (Fig. A3-1).
	Estimated block grades have been compared with the drill hole (data) grades, using a spider-diagram' which has shown good correspondence between the estimated grades and the drill holes (Fig. A3-1)  Fig. A3-1. Spider-diagram comparing block and drill hole grades averaged by the 50m wide panels drwan across the deposit in the east-West direction
Moisture (3.6)	Dry bulk density, 1.9 t/m^3 was used as a tonnage factor
Cut-off parameters (3.7)	In the past, resources of the Gould's Dam deposit were reported at 0.1 m x U_3O_8%), 0.2 (m x U_3O_8) U_3O_8 cut-off grade. Choice of the given cut-off was subjective and was not based on economic assessment of the project. In the current study a comparative analysis of the cut-off grades at the ISL-uranium projects in Australia and in the world was undertaken as a mean for choosing of the resource cut-off grade. Based on that study a cut-off 250 ppm U_3O_8 was chosen for reporting resources
Mining factors or assumptions (3.8)	Uranium mineralisation at the Billeroo palaeochannel is amenable for exploitation using in-situ leach (ISL) technologies. Mineralisation is located within the aquifer where it is hosted by highly permeable sands. The **estimated porosity of the Lower Eyre Sands, that host uranium mineralisation, is approximately 30%.** A moderate depth of mineralisation, and good spatial continuity coupled with the tabular shapes of the rolls are favourable characteristics for exploitation using ISL technologies. This assumption was confirmed by numerous tests including the field leach tests which have confirmed the amenability of mineralisation to ISL extraction.

	In particular, in-situ leach push-pull **tests undertaken in 1979 using sulphuric acid and the range of oxidants including hydrogen peroxide, Caro's acid, and ferric sulphate, has shown that mineralization is amenable for acid leaching and viable pregnant liquor values were obtained.** The test were made in the Honeymoon deposit and are not directly applicable to the Gould's Dam. It is assumed, based on similarities of the geological and geotechnical characteristics of the two palaeochannels that results of the tests at Honeymoon are approximately applicable for the Gould's Dam site. However, for conversion Gould's Dam resources to the reserves the systematics tests will be undertaken at the Gould's Dam deposit and represents a main objective of the future technical evaluation studies.
Metallurgical factors or assumptions (3.9)	Several tests have been undertaken at the Honeymoon deposit. The tests are described in details in the feasibility study report (Valliant and Bergen, 2012) and briefly summarised here. The tests have confirmed that uranium mineralisation distributed in the Honeymoon Domain is amenable for extraction using ISL technologies but has also revealed that the optimal processing conditions are not found and more testings are needed. It is assumed that this results are applicable to the Gould's Dam site. (See comments to the point 3.8)
Environmental factors or assumptions (3.10)	Mining license at the Honeymoon deposit includes all environmental, social and legal permissions allowing to mine the uranium from the reported area using ISL technology. Beverly mine operates in the same area extracting uranium using ISL technique. Therefore, it is highly likely that all permissions will be obtained for the Gould's Dam and based on the detailed EIS which will be prepared as part of the PFS/FS programmes
Bulk density (3.11)	Dry bulk density, 1.9 t/m^3 was determined by the down-hole geophysical techniques and used as a tonnage factor. This is based on 30% average porosity measured by neutron activation techniques applied to the mineralised sands implying 2.67 (SG of quartz) x 70% =1.87 (Bampton, 2006). Allowing for some pyritic cementing, this is rounded up to 1.9 (Bampton 2006).
	Down-hole geophysical logging of the porosity is a standard industry procedure used for the measuring density of the non consolidated sediments.
	The density estimated by measuring porosity and estimating the bulk density of the rocks implying that it composed of quartz, which 2.67 SG equal to 2.67 g/cm^3. Thus DBD of the sands is 2.67 x 70% =1.87 t/m^3. Allowing for some pyritic cementing, this is rounded up to 1.9 (Bampton 2006).
Classification (3.12)	Resource classification for Gould's Dam was adopted from the studies made at the Honeymoon Domain where it was based on the uncertainty of the estimated grade. These were estimated for the different grids of interest using SGS technique of conditional simulation methodology. Classification parameters were as follows: • Measured resource includes blocks of mineralisation equal to quarterly production which are estimated with an average error of +/-15% (at 0.95 confidence limit); • Indicated resource incudes blocks of mineralisation equal to annual production which are estimated with an average error of +/- 15% (at 0.95 confidence limit); • Inferred resources include all material outside of the Measured and Indicated resource. This should be estimated with an error of +/- 15% (at 0.95 confidence limit).

<table>
<tr><td></td><td>The threshold of +/-15% is consistent with the industry practices and is used as an approximate guideness in this study.

Two production scenarios, 1Kt U_3O_8 per annum, and 2 Kt of U_3O_8 per annum, are considered as a basis for definition of the resource estimation grids.</td></tr>
<tr><td></td><td>Based on the geostatistically estimated uncertainties of the U_3O_8 estimates the drilling grids like 60 x 40 to 120 x 40 are sufficient for accurate estimation of the quarterly (Measured resources) and yearly (Indicated resources) production.

However, these grids are too broad for designing the production cells, and therefore will be suboptimal for definition reserves, which requires more accurate local estimates.

Thus, the optimal drilling grids for classification resources are as follows (Table A3-2):

Table A3-2: Drilling grids recommended for classification Mineral Resources at the Honeymoon and Gould's Dam deposits

<table><tr><th>Measured</th><th>Indicated</th><th>Inferred</th></tr><tr><td>40-20 x 20</td><td>80-40 x 40-20</td><td>120 x 40</td></tr></table>

Thus, the part of the Gould's Dam deposit which as drilled as 40 x 40m grid can be classified as Indicated resource.

Mineralisation, located outside of this area is classified as Inferred resources. Distances between drill holes in this part of the Gould's Dam deposit are broader than optimal grid recommended in the Table A3-2. However, variography analysis shows better continuity of the mineralisation grade at the Gould's dam than it was estimated at Honeymoon therefore a moderate increase of the drilling grid for classification Inferred Resources is warranted.</td></tr>
<tr><td></td><td>M. Abzalov undertake the data analysis, geological interpretation and geostatistical estimates. Obtained results appropriately reflects his view as the projects CP on the deposit and resources.

The database was independently reviewed and corrected, where it was found appropriate to do, B. J. Cherry and N. Inwood.</td></tr>
<tr><td><i>Audits or reviews (3.13)</i></td><td>Current estimate has been reviewed by N. Inwood.

No material issues were found.</td></tr>
<tr><td><i>Discussion of relative accuracy/ confidence (3.14)</i></td><td>Classification parameters were as follows:

• Measured resource includes blocks of mineralisation equal to quarterly production which are estimated with an average error of +/-15% (at 0.95 confidence limit);

• Indicated resource incudes blocks of mineralisation equal to annual production which are estimated with an average error of +/- 15% (at 0.95 confidence limit);

• Inferred resources include all material outside of the Measured and Indicated resource. This should be estimated with an error of +/- 15% (at 0.95 confidence limit).

The threshold of +/-15% is consistent with the industry practices and is used in this study.</td></tr>
</table>

	Resources are estimated as small blocks 5x5x0.5m (Indicated) and 10 x 10 x 0.5 m (Inferred). The size of the blocks and estimation methodology provide the good estimate of the local tonnages and grades with the level of details sufficient for creating the mine (ISL wellfield) design and plan the mine production. Level of the details in estimated Indicated resources and accuracy of the estimates are sufficient for conversion these Resources to Ore Reserves following the guidelines of the JORC Code 2012.
	Production data not available