



Honeymoon Uranium Project, South Australia

Boss plans exploration program to drive increases in production rate and mine life

Multi-pronged 2021 exploration campaign aimed at upgrading significant Exploration Target to JORC Resources

Highlights

- Boss continues its exploration strategy that has significantly expanded the global JORC resource from 16.57Mlbs to 71.67Mlbs (~433% increase) since acquiring Honeymoon in December 2015
- Comprehensive review of the Honeymoon historical database finalised, including extensive geological and geochemical data leading to an initial scout drill program
- Scout drill results confirm potential for high-grade mineralisation outside current JORC Resources. Intersections (PFN results, ppm pU₃O₈) include:
 - BMR085 (Brooks Dam ext.) from 103.8m GT 2,144 (0.75m @ 2,487 ppm pU₃O₈)
 - BMR087 (East Kalkaroo ext.) from 118.5m GT 1,498 (1m @ 873 ppm pU₃O₈)
 - BMR076 (Jason's South) from 92.50m GT 1,088 (1m @ 1,003 ppm pU₃O₈)
- Drilling at Jason's South followed up significant historical uranium grades (gamma results, ppm eU₃O₈), including:
 - MTC124 (Jason's South) from 110.75m GT 3,398 (1.05m @ 3,236 ppm eU₃O₈)
 - SE150 (Brooks Dam ext.) from 107.10m GT 1,313 (1.25m @ 1,050ppm eU₃O₈)
- Follow up exploration campaign planned including low cost geophysical and drilling activities
- Enhanced Feasibility Study (EFS) on Honeymoon provides a base case to fast-track uranium production from Honeymoon's Restart Area utilising only 35.9Mlb of the Project's global mineral resource (JORC 2012) of 71.6Mlb
- This additional existing JORC Resource, extensive permits and exploration upside mean there is substantial scope to increase the production profile beyond the EFS forecasts
- No further permitting is required to resume production and Honeymoon has a valid Uranium Mineral Export Permission for 3.3Mlb/annum
- 2021 Exploration campaign will be done in parallel with completion of the EFS, project funding discussions and offtake negotiations

FOR FURTHER INFORMATION PLEASE CONTACT:

Boss Energy Limited
ABN 38 116 834 336

Suite 3, Churchill Court
234 Churchill Avenue
Subiaco WA 6008

Duncan Craib - Managing Director/ CEO
+61 (08) 6263 4494

Paul Armstrong – Public Relations
+61 (08) 9388 1474

ASX: BOE

www.bossenergy.com

 @Boss_Energy

Boss Energy Limited (ASX: BOE) is pleased to announce that a review of its historical database has highlighted significant potential to grow the inventory at its Honeymoon uranium project in South Australia.

The wealth of historical information revealed multiple anomalies in coinciding datasets within areas that are still relatively under-explored, distal to known JORC resources.

A limited scout exploration drill campaign has been completed to test the accuracy of data gathered and the geophysical passive seismic mapping technique, within areas with existing heritage clearances.

The drilling returned highly promising uranium intercepts that support current conceptual models, showing significant potential for high-grade mineralisation outside the Honeymoon Restart Area.

Honeymoon is fully permitted to export 3.3Mlbs U₃O₈ equivalent per annum, with the 2020 Feasibility Study¹ confirming the Company's position as Australia's next uranium producer capable of re-starting production within a 12-month timeframe in response to a market upswing.

Boss Energy Managing Director Duncan Craib said: "The historical database study and scout drilling support our view that there is immense potential to grow the inventory at Honeymoon.

"This has the potential to create significant value for shareholders because it would open the door to increasing the mine life and production rate, which would in turn grow the project's NPV and free cashflow.

"We are now devising an exploration campaign to unlock this value. This will be done in parallel with completion of the EFS, project funding discussions and offtake negotiations."



Figure 1: Boss' Honeymoon Uranium Project in South Australia, 80km north-west of Broken Hill.

¹ Refer to ASX:BOE announcement dated 21 January 2020. All material assumptions underpinning the forecast financial information (and the production targets on which such forecast financial information is based) continue to apply and have not materially changed.

Historical Review and Compilation

During the past year, Boss’s geology team completed a comprehensive desktop review of all historical geoscientific information acquired since exploration began on the Honeymoon Project in the late 1960’s.

The exercise revealed a treasure trove of data, including geological field maps, field measurements of mapped structures and geochemical assays from rock chip samples sourced from exposed basement bedrock, proving potential for hard-rock uranium mineralisation in the southern parts of the tenements.

Extracted geophysical data include tenement-scale gravity surveys and prospect-scale ground magnetic surveys within both Eastern and Western Region tenements. Coincident gravity/magnetic anomalies have been identified that do not appear to have been drill tested and may indicate potential for Iron-Oxide-Copper-Gold (IOCG) type mineralisation, based on proximity and similarity of geological features to Havilah Resources’ Kalkaroo and Portia copper/gold deposits (**Figure 2**).

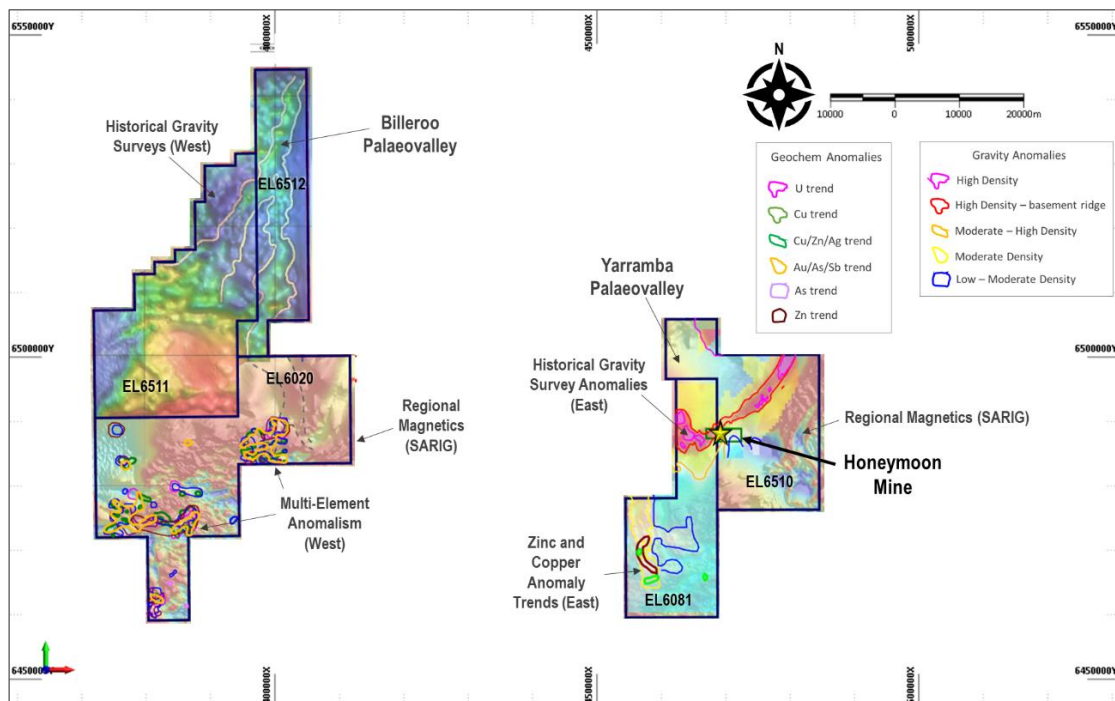


Figure 2: Coincident geophysical and geochemical anomalies identified from the historical database review

Following completion of the historical review, the extracted data is being utilised to refine the planned heritage clearance and geophysical survey target areas for the 2021 exploration season, as well as being incorporated into the ongoing development of the Company’s 3D geological models. With each successive phase of data acquisition, these 3D models are instrumental in advancing the exploration potential of the Honeymoon Project.

Limited scout exploration drilling exercise

In the fourth quarter of 2020, a limited scout exploration drill campaign was undertaken, constrained by pre-existing heritage cleared corridors, in under-explored areas both extensional and distal to the known Honeymoon Restart Area (JORC 2020). Nineteen rotary mud holes were drilled for a total of 2,325 metres, from which the top results were as follows:

- BMR085 from 103.75m **GT 2,144** (1.75m @ 1225ppm pU₃O₈, incl. 0.75m @ 2487 ppm)
- BMR087 from 118.25m **GT 1,498** (3.50m @ 428ppm pU₃O₈, incl. 1m @ 873 ppm)
- BMR076 from 92.50m **GT 1,088** (1.25m @ 870ppm pU₃O₈, incl. 1m @ 1003 ppm)
- BMR082 from 110.25m **GT 680** (2.25m @ 302ppm pU₃O₈, incl. 0.50m @ 634ppm)
- BMR089 from 121.75m **GT 643** (2.50m @ 257ppm pU₃O₈)

Drilling was completed to test both the passive seismic surveys of 2019 as well as anomalies identified from the historical desktop study. Full results are listed in **Appendix 2, Table 1** and **Table 2**. The three key objectives of the scout drilling exercise were achieved:

1. The accuracy of the passive seismic survey tool was proven. Fourteen of the nineteen drillholes successfully intersected basement within a 10% error margin of the modelled passive seismic depths. The error margin was greater in the remaining 5 holes because of uplifted basement that was not identified by any regional geophysics – a discovery which has since improved understanding of channel morphology and uranium behaviour in the palaeovalley system.
2. One of the current conceptual exploration models hypothesised the extension of mineralisation to the northwest (Target 3) and northwest (Target 4) of the Honeymoon Restart Area (HRA) in narrow channels within the broader palaeovalley. Ten of the nineteen holes returned significant intersections of uranium, with the best results shown north of Brooks Dam in Target 3 (BMR085: 1.75m @ 1225ppm pU₃O₈, from 103.75m). These results confirm the use of the systems-style exploration models by proving that potentially economic mineralisation continues outside of the known JORC (2012) mineral resources and that these areas remain open for follow-up investigations.
3. The third objective involved the follow-up of historical high grades and mineralisation extensions to the northwest (Target 1) and southeast (Target 2) of the Jason's Resource. The best results were returned from Target 2 (BMR076: 1.25m @ 870ppm pU₃O₈, including 1m @ 1003ppm pU₃O₈, from 92.50m). Combined with the known "pinch-and-swell" characteristics of mineralisation within the HRA, these drilling results both confirm the initial, pre-drilling model and prove the extension of potentially high-grade economic mineralisation southeast of Jason's.

The respective locations of these holes are shown on **Figure 3**, overlain on an aerial photo of the Exploration Licence and relative to the Exploration Target areas. **Figure 4** provides an oblique long-section view of drill results from Jason's South (**Target 2**), showing the high grade uranium intersected by historical drillholes, the continuation of this economic mineralisation in recent drilling, and the potential for extending this mineralisation to the southeast of the existing Jason's Resource.

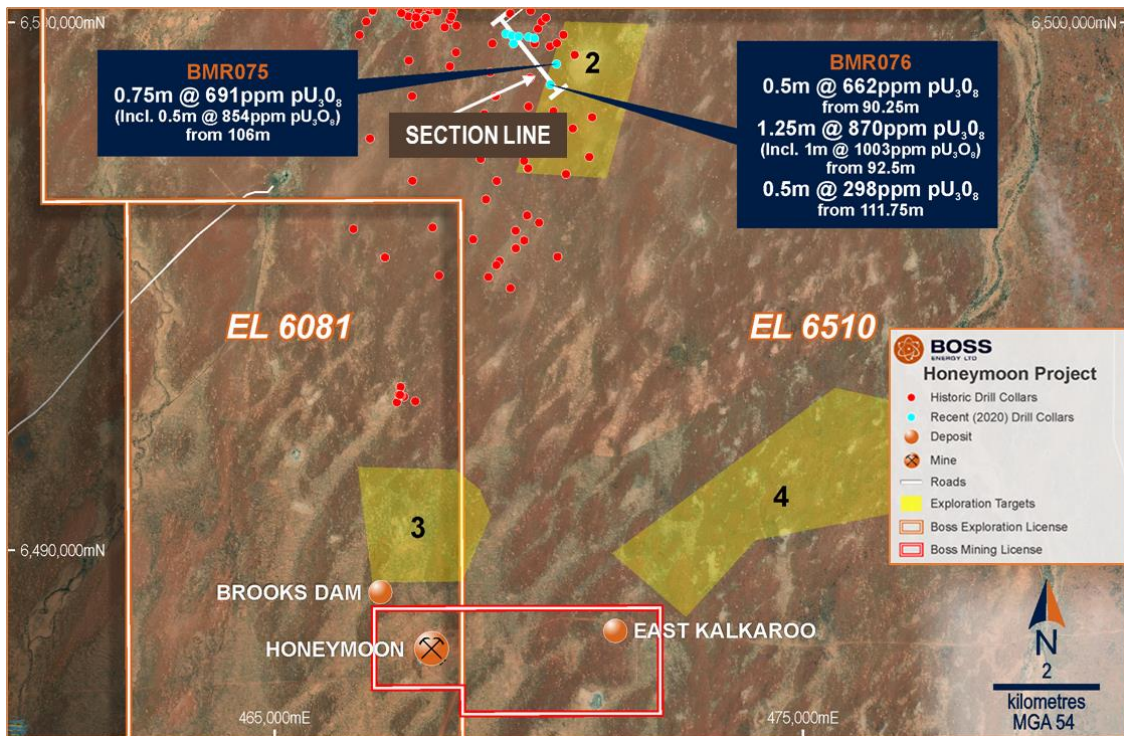


Figure 3: Location Map overlain on aerial orthophoto and relative to the pre-defined Exploration Targets

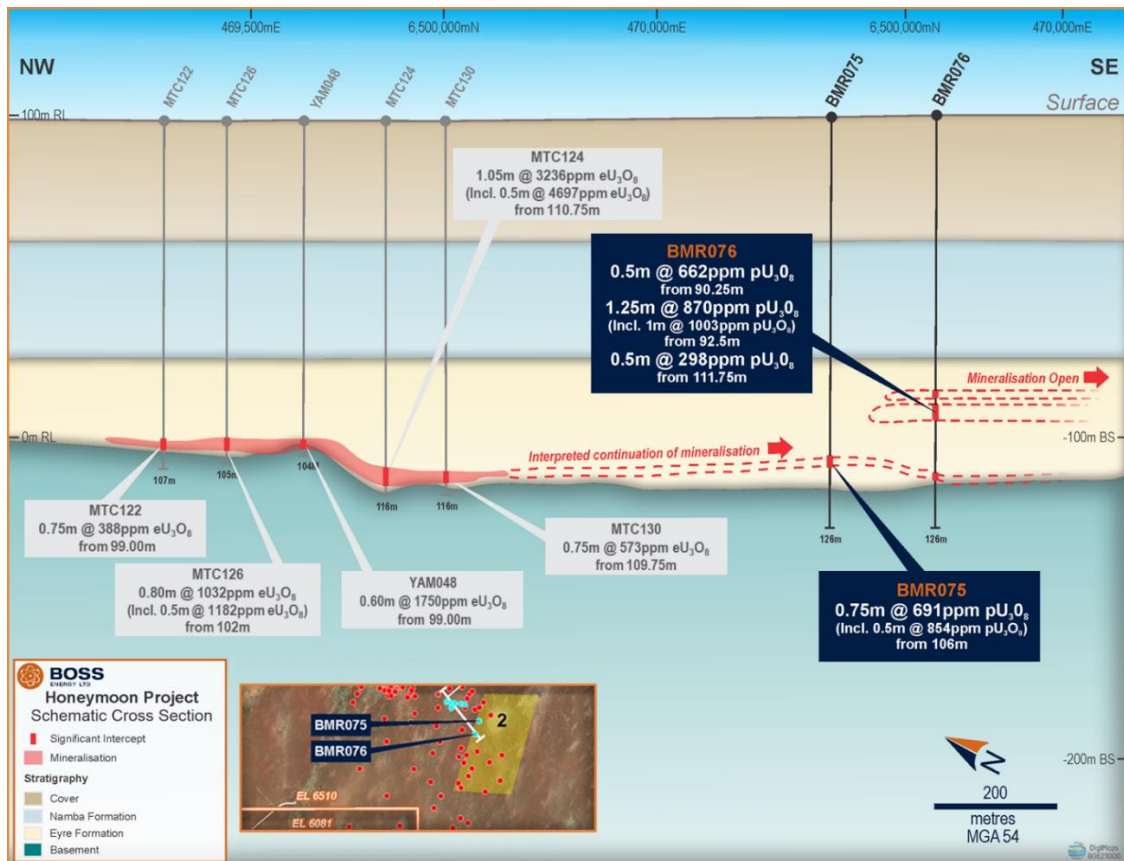


Figure 4: Target 2 - Oblique Long Section View of Historical and Recent Drilling at the Jason's South Prospect

After completion of the scout drill exercise a tenement-wide, 3-Dimensional, oxidation model was created in order to visually map out changes in chemical behaviour (observed during drilling) and associated chemical controls on uranium mineralisation throughout the Yarramba Palaeovalley, from the Jason's Resource in the north to the HRA and areas of extension to the east of East Kalkaroo.

2021 Exploration planning underway

The objective of the forthcoming field season is to extend Honeymoon's mine life and increase its production profile by a) upgrading known JORC resources outside of the HRA and b) targeting greenfields exploration areas distal to the known resources. On completion of the forthcoming heritage clearances, exploration will resume with the initiation of ground-based, low-cost and non-invasive geophysical surveys in the Western Region tenements. Results from the historical data review will be used to constrain and refine the size, and location, of the survey areas as part of the overall move towards smarter targeting practices. Completion of the geophysical surveys will be followed by exploration drilling.

The \$275,000 South Australian Government exploration grant awarded to Boss via the Accelerated Discovery Initiative (**ADI**) will be used to support the planned 2021 exploration field season, with continued introduction of innovative exploration alternatives for palaeovalley definition, smarter drill target generation within the existing Exploration Target² areas, and the eventual growth of existing uranium JORC mineral resources (currently totalling 71.6Mlbs U₃O₈)³. The ADI forms part of the Growth State Agenda that aims to accelerate mineral discoveries through innovative exploration and research projects in regional and frontier terrains throughout South Australia.

The Company looks forward to sharing the results as these programs progress.

This ASX announcement was approved and authorised by the Board of Boss Energy Limited.

For further information, contact:

Duncan Craib
Chief Executive Officer
P: +61 (8) 6263 4494
E: boss@bossenergy.com

For media enquiries, contact:

Paul Armstrong
Read Corporate
P: +61 (8) 9388 1474
E: info@readcorporate.com

² Refer to ASX:BOE announcement dated 25 March 2019. Refer Appendix 1 for further information on Exploration Target.

³ Refer to ASX:BOE announcement dated 25 February 2019. Refer Appendix 1 for Honeymoon JORC 2012 Resource.

APPENDIX 1

Honeymoon Project Mineral Resource (lower cut-off of 250 ppm U₃O₈)

The global Honeymoon Mineral Resource stands at **71.6 Mlb (52.4Mt) with an average grade of 620ppm U₃O₈, using a cut-off grade of 250ppm**, as summarised in **Table 1**.⁴

In addition to the global Mineral Resource, the Honeymoon Uranium Project also has an Exploration Target range of **28 Mt to 133 Mt of mineralisation at a grade of 340 ppm to 1,080 ppm U₃O₈ for a contained 58 Mlbs to 190 Mlbs U₃O₈ (26,300 to 86,160 tonnes of contained U₃O₈), using a cut-off of 250ppm**. Note the potential quantity and grade of the Exploration Target range is conceptual in nature. There has been insufficient exploration to estimate a Mineral Resource and it is uncertain whether future exploration will result in the definition of a Mineral Resource.

Table 1: Summary of upgraded Mineral Resource for the global Honeymoon Uranium Project

Resource Classification	Tonnage (Million Tonnes)	Average Grade (ppm U ₃ O ₈)	Contained Metal (Kt, U ₃ O ₈)	Contained Metal (Mlb, U ₃ O ₈)
Jason's (March 2017)⁵				
Inferred	6.2	790	4.9	10.7
Gould's Dam (April 2016)⁶				
Indicated	4.4	650	2.9	6.3
Inferred	17.7	480	8.5	18.7
Honeymoon Restart Area (January 2019)				
Measured	3.1	1,100	3.4	7.6
Indicated	14	610	8.7	19
Inferred	7.0	590	4.1	9.1
GLOBAL HONEYMOON URANIUM PROJECT				
Measured	3.1	1,100	3.4	7.6
Indicated	18.4	630	12.0	25.5
Inferred	30.9	570	18.0	38.5
Total	52.4	620	32.5	71.6

Competent Person's Statement

The information contained in this announcement that relates to exploration results is provided by Ms Asha Rao, who is a Member of both the AusIMM and the Australasian Institute of Geoscientists (AIG). Ms Rao has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration, and to the activity being undertaken to qualify as a Competent Person, as defined in the JORC 2012 edition of the "Australasian Code for Reporting of Mineral Resources and Ore Reserves". Ms Rao has 15 years of experience and is a full-time employee as Geology Manager for Boss Resources Ltd. Ms Rao consents to the inclusion in this report of the matters based on this information in the form and context in which they appear.

⁴ Refer to ASX: BOE announcement dated 25 February 2019.

⁵ Refer to ASX: BOE announcement dated 15 March 2017.

⁶ Refer to ASX: BOE Announcement dated 8 April 2016.

Reference to previous ASX announcements

In relation to the results of the Feasibility Study announced 21 January 2020, the Company confirms that all material assumptions underpinning the production target and forecast financial information included in that announcement continue to apply and have not materially changed. Nothing in this announcement pre-empts the findings of the Enhanced Feasibility Study currently being undertaken.

In relation to the Mineral Resource announced on 25 February 2019 and the Exploration Targets announced on 25 March 2019, the Company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcement and that all material assumptions and technical parameters underpinning the estimates in that market announcement continue to apply and have not materially changed.

Forward-Looking Statements

This announcement includes forward-looking statements. These forward-looking statements are based on the Company's expectations and beliefs concerning future events. Forward-looking statements are necessarily subject to risks, uncertainties, and other factors, many of which are outside the control of Boss Energy, which could cause actual results to differ materially from such statements. Boss Energy makes no undertaking to subsequently update or revise the forward-looking statements made in this announcement, to reflect the circumstances or events after the date of this announcement.

APPENDIX 2 – Table 1: Exploration Drill Results - 2020

In accordance with ASX Listing Rule 5.7.2, the Company provides the following information:

Table 1: Recent Exploration Drilling – Summary Results from 2020 Rotary Mud Drill Campaign

Summarised above a nominal 0.50m minimum thickness, maximum 1m internal dilution and above a 250ppm $pU_3O_8^2$ cutoff

Hole ID	Easting	Northing	RL	EOH (m)	Dip (°)	Azimuth (°)	Depth From (m)	Thickness (m)	$eU_3O_8^1$	$pU_3O_8^2$
BMR073	463201	6505200	103	113	-90	0	No Significant Assays			
BMR074	463797	6505203	95	120	-90	0	No Significant Assays			
BMR075	470333	6499212	101	126	-90	0	106	0.75	261	691
BMR076	470217	6498820	102	126	-90	0	85.25	1.25	109	310
BMR076	470217	6498820	102	126	-90	0	90.25	0.5	158	662
BMR076	470217	6498820	102	126	-90	0	92.5	1.25	858	870
BMR076	470217	6498820	102	126	-90	0	111.75	0.5	178	298
BMR077	470643	6497990	92	90	-90	0	No Significant Assays			
BMR078	470013	6497584	127	120	-90	0	No Significant Assays			
BMR079	463518	6505200	75	114	-90	0	86	0.5	298	297
BMR080	463421	6505198	89	114	-90	0	No Significant Assays			
BMR081	463320	6505199	93	118	-90	0	No Significant Assays			
BMR082	467181	6489601	117	132	-90	0	96.5	1	476	459
BMR082	467181	6489601	117	132	-90	0	105.25	0.75	330	341
BMR082	467181	6489601	117	132	-90	0	110.25	2.25	223	302
BMR083	467044	6489603	121	120	-90	0	97.25	1.5	124	281
BMR084	468405	6489803	112	132	-90	0	116.75	1.75	193	296
BMR085	467123	6489800	122	120	-90	0	103.75	1.75	596	1225
BMR085	467123	6489800	122	120	-90	0	106.5	1.25	232	261
BMR086	472336	6489441	136	126	-90	0	No Significant Assays			
BMR087	472266	6489507	109	126	-90	0	118.25	3.5	375	428
BMR088	472201	6489574	110	132	-90	0	No Significant Assays			
BMR089	472298	6489759	109	132	-90	0	121.75	2.5	70	257
BMR090	472368	6489688	109	132	-90	0	114	1	106	314
BMR091	472434	6489615	108	132	-90	0	No Significant Assays			

¹ - eU_3O_8 grade data derived from natural gamma downhole tool calibrated and operated by Boss Energy Ltd. No top cuts applied.

² - pU_3O_8 grade data derived from Boss Energy's Prompt Fission Neutron (PFN) tools, calibrated to groundwater and sedimentary conditions at the Honeymoon Mine Site and Adelaide calibration facility.

APPENDIX 2 – Table 2: Historical Drill Collars

In accordance with ASX Listing Rule 5.7.2, the Company provides the following information:

Table 2: Historical Drill Collars – Jason’s Deposit (MTC and YAM holes) and Brooks Dam Extension / Target 3 (SE150)

Summarised above a nominal 0.50m minimum thickness, maximum 1m internal dilution and above a 250ppm eU_3O_8 ¹ cutoff

Hole ID	Easting	Northing	RL	EOH (m)	Dip (°)	Azimuth (°)	Depth From (m)	Thickness (m)	eU_3O_8 ¹	pU_3O_8 ²
MTC122	469378	6499785	98	107	-90	0	99.00	0.75	388	-
MTC124	469805	6499722	98	116	-90	0	110.75	1.05	3236	-
MTC126	469487	6499754	98	105	-90	0	102.00	0.80	1032	-
MTC130	469915	6499698	98	116	-90	0	109.75	0.75	573	-
SE150	467177	6489690	117.9	116	-90	0	107.14	1.25	1050	
YAM048	469520	6499600	98	104	-90	0	99.00	0.60	1750	-

¹ - eU_3O_8 grade data derived from natural gamma downhole tool calibrated and operated by Boss Energy Ltd. No top cuts applied.

APPENDIX 3 – JORC TABLE 1, SECTIONS 1 – 2

JORC Table 1: Section 1 Sampling Techniques and Data

Criteria of JORC Code 2012	Reference to the Current Report
	Comments / Findings
<i>Sampling techniques</i>	<p>Boss is utilising its own PFN tools to obtain pU₃O₈ grades that, when properly calibrated, reduce the effect of radioactive disequilibrium. A natural gamma tool is also used as part of the downhole logging tool suite, and is also owned and operated by Boss Energy Ltd. All tools were maintained by specialised technicians based in Adelaide.</p> <p>Calibration for the downhole logging tools were regularly undertaken using in-house calibration pits available at the Honeymoon Project (PFN) and for the gamma tools externally, at the certified calibration facilities at Glenside, Conyngham St, Adelaide. Standard industry procedures were used for geophysical logging of the drill holes and estimation from the geophysical logs for the eU₃O₈ (from the gamma-ray logs) and pU₃O₈ (from the PFN instruments) grades.</p> <p>The historical drillholes released in this announcement were completed between 1973 and 2004. Due to the historic nature of these data, it is not always possible to comment on the accuracy or quality of the uranium grades derived from the downhole gamma logging. Uranium grade data derived from various generations were sourced from numerous historical reports between 1969 and the early 2000s, with all reports written by qualified geologists employed by, or consulting to, the company in question.</p> <p>The majority of the historical data have now been reviewed by Boss' Competent Person. Although the Company cannot verify the authenticity of the original historical documents prior to the 2000s, the Competent Person is satisfied that the information contained therein is of sufficient enough quality to provide a reasonable, indicative basis for the existence of potentially economic mineralisation within the specified target areas.</p> <p>All drilling completed prior to 2003 was logged predominantly by downhole gamma tools. In 2003, due to the highly variable radioactive disequilibrium within the Honeymoon Deposit, three PFN (Prompt Fission Neutron) logging tools were purchased by Southern Cross Resources. The PFN tool measures the uranium-235 radioactive isotope, allowing a more direct measurement of the uranium within the host formation, thereby reducing the effect of the disequilibrium. A series of calibration test pits were constructed at the Honeymoon Uranium Mine to enable regular calibration of the PFN tools.</p> <p>Gamma data was collected at variable sample rates between 5 and 10cm. PFN logging data was collected at sample rates between 1 and 3cm.</p>
<i>Drilling techniques</i>	Drilling was conducted by Watson Drilling using the rotary mud drill method. The typical hole diameter is 14.5cm.
<i>Drill sample recovery</i>	Not applicable. Calliper readings indicate that hole size diameters are predominantly consistent. Assays collected were purely geophysical, for which sample recovery is not required.
<i>Logging</i>	<p>Chip samples are collected every 2m, sample piles are photographed and geologically logged (lithology). Documentation also includes colour, grain size, texture, sorting, alteration and oxidation state. All mineralised intervals were geologically logged with logging codes compliant with industry standards.</p> <p>Due to the historic nature of the sampling results included in this report, it is not possible to comment on the accuracy or quality of any geological logging used to produce the results described therein. However, based on more recent drilling programs and verification of the lithologies through drilling completed by Boss in 2018, the Competent Person has reviewed the available historical logging data and is satisfied</p>

	<p>that the information contained therein is of sufficient enough quality to provide a reasonable, indicative basis for the existence of potentially economic mineralisation within the specified target areas.</p>
<p><i>Sub-sampling techniques and sample preparation</i></p>	<p>QA/QC of the geophysical data included systematic control of the depth logged and control of the recorded U₃O₈ grade values. 2 PFN tools were run consecutively within the same drillhole to provide a repeatability/duplicate assay set of data. Geophysical tools estimate uranium content at large volumes, approximately 25 to 40 cm radius. The volume is sufficiently large allowing accurate measure of the grade.</p> <p>The Competent Person has reviewed the available historical sampling records and is satisfied that the information contained therein is of sufficient enough quality to provide a reasonable, indicative basis for the existence of potentially economic mineralisation within the specified target areas.</p>
<p><i>Quality of assay data and laboratory tests</i></p>	<p>Company Geophysical tools used to collect data include:</p> <ul style="list-style-type: none"> • Auslog Gamma (with Guard) S422 • Prompt Fission Neutron tool PFN#27 • Prompt Fission Neutron tool PFN#32 • Prompt Fission Neutron tool PFN#8 • Gamma combined with guard S058 • Auslog 3 arm calliper A326 <p>Holes were logged in down and up directions, providing good control of logging consistency. All geophysical tools were regularly calibrated, using in-house facilities and the certified laboratories in Adelaide.</p> <p>QA/QC of the geophysical data included systematic control of the depth logged and control of the recorded eU₃O₈ grade values. 2 PFN tools were run consecutively within the same drillhole to provide a repeatability/duplicate assay set of data. The winch in the Company-owned logging truck is checked regularly for condition and depth calibration.</p> <p>Due to the historic nature of the logging data and uranium grades included in this report, it is not possible to comment on the accuracy or quality of any calibration systems or methods used to produce the historical results from drilling completed prior to 2003.</p>
<p><i>Verification of sampling and assaying</i></p>	<p>The gamma-log data were additionally validated against the PFN logs. PFN grade data was only reported where there was a good correlation between PFN and gamma anomalies; and where PFN tool readings were considered to be robust.</p> <p>Due to the historic nature of the sampling and uranium grade data included in this report, it is not possible to comment on the accuracy or quality of the historical assays from drilling completed prior to 2003.</p> <p>However, based on successive drilling completed since 2003 (after acquisition of the PFN tools), resulting PFN grades have been shown to correlate well with indicative gamma assays reported by historical drilling within the main deposits of the Honeymoon Re-Start Area. The Competent Person has reviewed and verified these data and is satisfied that the assays are of sufficient quality to provide reasonable, indicative basis for the existence of potentially economic mineralisation within the specified target areas.</p>
<p><i>Location of data points</i></p>	<p>Drill collar locations are set out using a Garmin handheld GPS prior to drilling and the location confirmed again, by handheld Garmin GPS, after drilling. 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.</p> <p>Due to the historic nature of the drilling data included in this report, it is not possible to comment on the accuracy of the initial positioning and subsequent surveying used to locate the historical drilling completed prior to 2003.</p> <p>However, based on several field visits, recent drilling programs and excellent orthophoto satellite imagery over the area covered by Mining Licence 6109, the Competent Person is satisfied that the location data from drilling undertaken in the same historical generations is also of sufficient accuracy to provide reasonable, indicative basis for the existence of potentially economic mineralisation within the specified target areas.</p>

<i>Data spacing and distribution</i>	<p>The drilling completed was in the form of scout exploration holes and, as such, there was no standard hole or line spacing utilised. Where drilling was positioned on fence lines, however, the holes were spaced between approximately 90 and 140 metres. The spacing variations were designed specific to the prospect area being targeted.</p> <p>Uranium grade data are composited to 0.25m to aid in interpretation.</p> <p>The Competent Person has reviewed all available data and, based on their knowledge and experience with the various exploration techniques employed, is satisfied that the data included here is of sufficient quality and accuracy to provide a reasonable, if indicative, basis for the mineralisation reported herein.</p>
<i>Orientation of data in relation to geological structure</i>	All holes are drilled vertically which provides an accurate intersection of the flat laying mineralised bodies.
<i>Sample security</i>	<p>Due to the historic nature of the downhole geophysical data reported therein, it is not always possible to comment on the sample security methods employed for the data used to produce the results described in this report.</p> <p>As these data are from areas that are in a purely exploratory stage of operation, the Competent Person has considered that any issues potentially relating to sample security do not present a material risk at this current stage of evaluation.</p>
<i>Audits or reviews</i>	All information used in the 2021 Exploration Update has been reviewed by the Boss Energy Competent Person. Due to the historic nature of the results reported therein, no further reviews or audits have been undertaken.

JORC Table 1: Section 2 Reporting of Exploration Results

Criteria of JORC Code 2012	Reference to the Current Report
	Comments / Findings
<i>Mineral tenement and land tenure status</i>	<p>The Project consists of 1 granted Mining Lease, 5 granted Exploration Licenses, 3 Retention Leases and 2 Miscellaneous Purpose Licenses.</p> <p>The Mining license expires in 2023, exploration licenses expire in 2022.</p>
<i>Exploration done by other parties</i>	<p>The Honeymoon deposit and surrounding areas of the Yarramba Palaeovalley have been systematically explored and drilled starting from 1969.</p> <p>The Honeymoon Project was evaluated several times, with the degree of details varying from scoping studies to bankable feasibility undertaken in 2006. Resource estimates have been made from 1998 to 2019.</p>
<i>Geology</i>	Palaeochannel-type, sandstone-hosted uranium - tabular style.
<i>Drill hole Information</i>	See previously-released exploration announcements referred to in the body of the report, along with Figure 5 for the locations of the 2020 exploration drilling. The topography in this region is predominantly flat. All holes were drilled vertically with an average hole length of approximately 120m.
<i>Data aggregation methods</i>	Mineralised intervals were chosen based upon a nominal 250ppm U ₃ O ₈ cutoff and over 0.50 m interval thickness for reporting. Consideration was given to mineralisation defined by a combination of PFN pU ₃ O ₈ and natural gamma eU ₃ O ₈ co-existent intervals.
<i>Relationship between mineralisation</i>	<p>Drill traverses are oriented at right angle across the domain strike.</p> <p>Holes are drilled vertically down. All holes have been surveyed downhole with only minimal deviation identified (e.g., <2m over 100m).</p>

<i>widths and intercept lengths</i>	
<i>Diagrams</i>	Appropriate and relevant diagrams have been included in the announcement.
<i>Balanced reporting</i>	Balanced reporting has been adhered to. See previous exploration announcements.
<i>Other substantive exploration data</i>	Mineralisation is still open along the strike of the various domains referred to herein.
<i>Further work</i>	Planned exploration for the 2021 field season involves the use of various innovative, low-cost, non-invasive geophysical techniques followed by scout drilling to test both resulting anomalies identified from the geophysics and targets identified from the historical database review and compilation.