ASX Announcement 14 December 2016

ASX: BOE

# PFN CONFIRMS AND INCREASES HIGH-GRADE MINERALISATION AT JASONS PROSPECT

## HIGHLIGHTS

- PFN results significantly increase encountered grade at Jasons Prospect by 50% on average
- Strong positive disequilibrium indicated locally, particularly on basal mineralisation in the southern project region
  - Results along trend in line with nearby historical PFN data (e.g. YAM040)
  - Strong high-grade zone identified, open to the north and south over 1km in trend extent and up to 200m wide
- Sonic core holes planned to confirm stratigraphy and tenor of mineralisation with laboratory assaying
- Significant intercepts encountered now include:
  - 2.5m @ 4005ppm pU3O8 (BMR043 from 105.45 - versus 1392ppm $eU_3O_8$)
  - 6.75m @ 940ppm pU3O8 (BMR050, from 103.95 - versus 524ppm $eU_3O_8$)
  - 1.5M @ 1556ppm pU3O8 (BMR008 from 90.25m - versus 1427ppm $eU_3O_8$)
  - 1.25m @ 1662ppm pU3O8 (BMR018 from 93.55m - versus 1389ppm $eU_3O_8$ )
  - 1.5m @ 1389ppm pU3O8 (BMR042 from 103.95m - versus 605ppm $eU_3O_8$)
  - 1.75m @ 1317ppm pU3O8 (BMR044 from 93.45m - versus 875ppm $eU_3O_8$)
- PFN probe results have been independently validated as suitable for reporting
- Field Season finished for 2016, further trend extent drilling to start in January 2017

**Boss Resources Limited (ASX: BOE)** is pleased to announce that the PFN data collected during the recent drilling program has been reviewed by an independent expert as suitable for reporting. The Jasons Prospect is located approximately 12km north of Boss's Honeymoon Uranium Mine Site (Figure 1).

Field activities (Figure 2) have finished for 2016 with 54 holes drilled in total. In 2017 the program will continue targeting north- and south- trend extensions of the southern high-grade zone as well as drilling of two sonic core holes.

Prompt Fission Neutron (PFN) tools are the preferred method for assessing uranium in younger sandstone hosted uranium deposits as they can avoid the effect of radioactive disequilibrium and can provide a more accurate reading of uranium grade and mineralisation. Natural gamma derived $eU_3O_8$ grade measures uranium content indirectly as a large portion of gamma rays are emitted by $^{214}Bi$ and $^{214}Pb$, which are decay products from $^{238}U$. The PFN tool utilises pulsed neutrons to directly determine the presence of $^{235}U$ and results in $pU_3O_8$ grade measurements.

During the current drill program at the Jason Prospect, Boss collected PFN data using 2 PFN tools acquired with the Honeymoon Project. As part of the Company's QA/QC procedures, an independent

Suite 23, 513 Hay St, Subiaco WA
P: +61 (8) 6143 6730
E: admin@bossresources.com.au
ABN 38 116 834 336

expert was engaged to review both the calibration data and the resulting $pU_3O_8$ grade data prior to reporting.

Boss is pleased to note that the PFN results have confirmed and in a number of case increased the equivalent grades for the mineralisation encountered in the drill program. See Table 1 for comparisons.

Boss recognises that there is an approximately 50% average higher reading on the PFN tool when compared to the natural gamma $eU_3O_8$ grade data. The Company has designed a sonic core program to commence in January 2016 to further confirm the grade profile at the Jasons prospect. This is an important validation step prior to potentially using the PFN data in Resource estimates.

Figure 1 shows the peak per-hole grade x thickness composites (single best composite, not amalgamated) for the recent drilled holes, along with historical holes for reference. Results seen to date support the general endowment seen by historical drilling with significantly good lateral continuity of mineralisation encountered. Figure 3 shows example sections from the southern portion of the deposit. The Company is encouraged that the high grade mineralisation trend to the south is showing good trend continuity and is related to a basal feature of the Lower Eyre sands, potentially related to a basement embayment.

Table 1 summarises $pU_3O_8$ and $eU_3O_8$ significant intercepts above a nominal 250ppm $eU_3O_8$ (gamma) lower cutoff and greater than 0.5m in thickness and less than 1m of internal dilution. Holes where the PFN data was either unreliable or the hole was blocked do not have a reported $pU_3O_8$ grade assigned. Based upon logging of the drilling muds, the mineralisation encountered to date is from within sandy units of the Lower and Middle Eyre Formation and also along sand/clay interbeds and interfaces.

Boss has an approximately 70 drillhole mud-rotary program underway at the Jasons Prospect (Figure 2) which will enable further delineation and expected expansion of the current resource (currently at 2.8Mt at 840ppm $eU_3O_8$ for 5.2Mlb contained $U_3O_8$ above a 250ppm $U_3O_8$ lower cutoff) .

The gamma $eU_3O_8$ probing was undertaken by Borehole Wireline, a highly experienced South-Australian based geophysical contractor. The tool used has been calibrated in the South Australia Glenside test pits.

## Calibration of PFN Tools

The PFN tools have been calibrated using four on-site test pits and also against the certified Glenside calibration pits in South Australia. For both tools used, Boss has chosen to use the most conservative calibrations available based upon four calibration runs over 6 months in 2016 at the Honeymoon test pits. It is noted that matrix differences in the Glenside pits does not allow for direct comparison between the two results. No hole size calibration factor has been used. It is noted that the PFN tools are calibrated in 120mm diameter holes, and 145mm diameter holes are being drilled on the Jasons Prospect; historically a positive calibration faction of 130% would have been used for holes of this hole diameter. Both the calibration procedures and resulting $pU_3O_8$ grade data were reviewed by an independent expert (Mr J. Oram) prior to reporting.

Full sampling and drilling details are shown in Appendix 1.

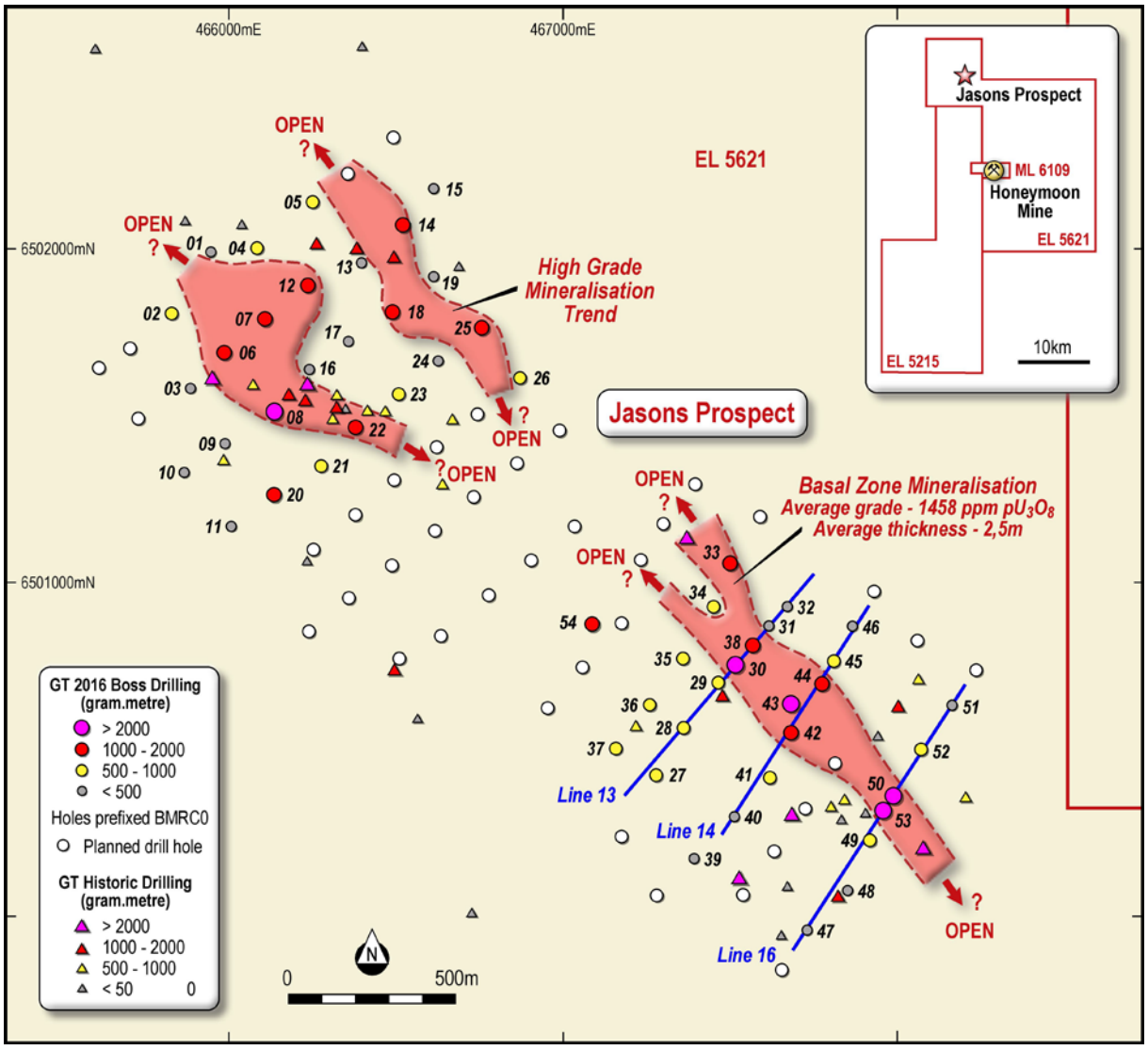


**Figure 1:** Location of drilling at the Jasons Prospect, approximately 15km north of the Honeymoon Mine site. Maximum grade times thickness (eU3O8 [in ppm] x m) shown to assist in illustrating high-grade trends.

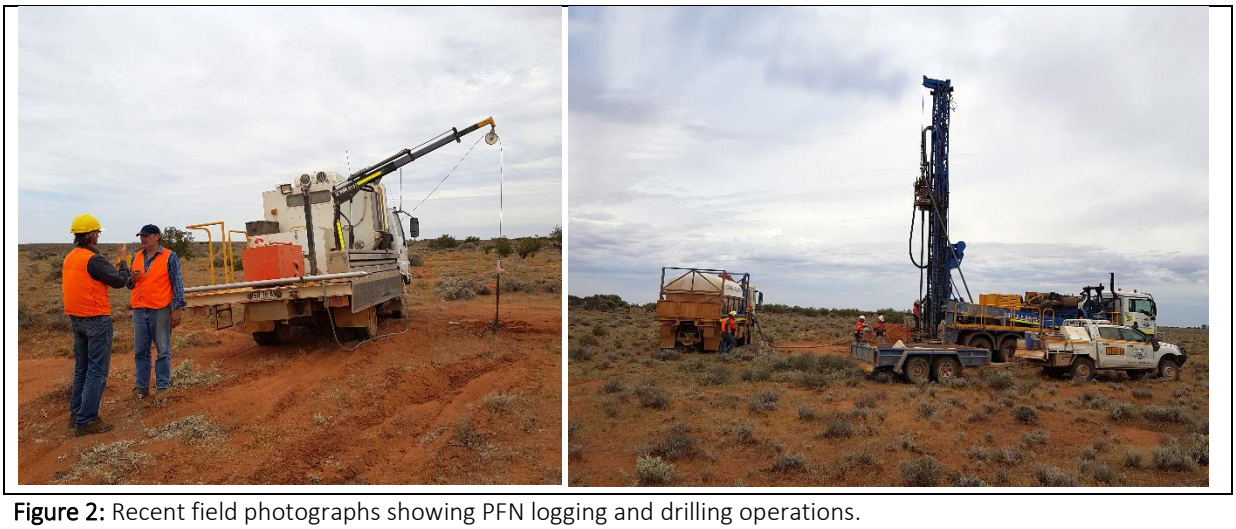

**Figure 2:** Recent field photographs showing PFN logging and drilling operations.

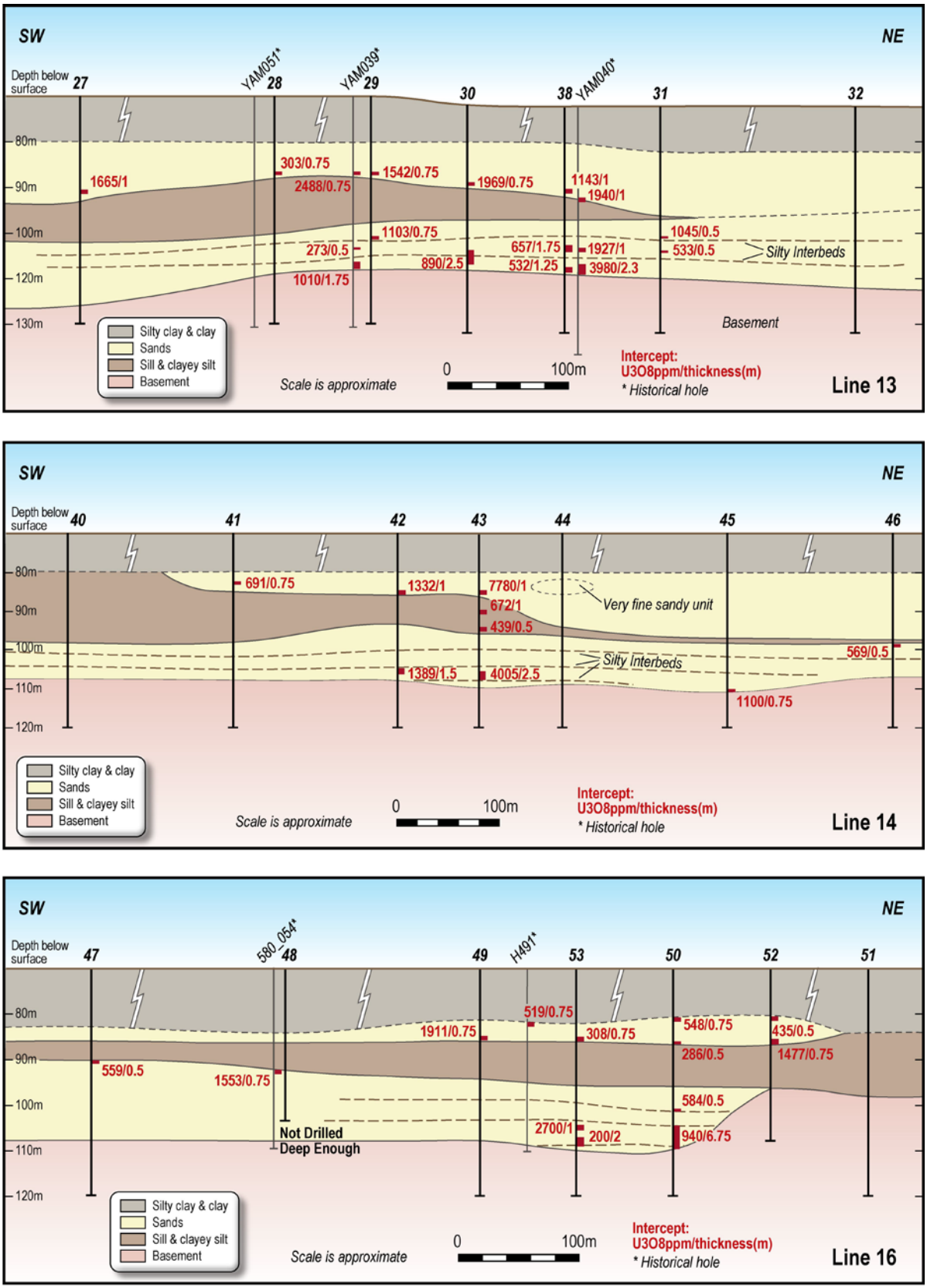


**Figure 3:** Example cross sections through Lines 14, 14 and 16. Results are shown as grade (ppm $eU_3O_8$ or $pU_3O_8$ / thickness in metres where available). Note: sections only show the bottom ~60m of each section.

**Table 1: Summary Results from 2016 Jasons Mud Rotary Drilling**

Summarised above a nominal 50cm minimum thickness, 1m internal dilution, and above 250ppm $eU_3O_8$ [1]

| Hole ID | Easting | Northing | RL | Dip | Az. | From | length | $eU_3O_8$ [1] (ppm) | $pU_3O_8$ [2] (ppm) |
|---|---|---|---|---|---|---|---|---|---|
| BMR001 | 465,947 | 6,501,988 | 94 | -90 | 0 | 93.25 | 0.75 | 399 | 399 |
| BMR002 | 465,834 | 6,501,804 | 94 | -90 | 0 | 87.75 | 0.75 | 684 | Not available |
| | | | | | | 91.75 | 0.75 | 1,084 | Not available |
| BMR003 | 465,887 | 6,501,581 | 95 | -90 | 0 | 92.25 | 0.5 | 473 | Not available |
| BMR004 | 466,088 | 6,502,000 | 94 | -90 | 0 | 80.5 | 0.5 | 309 | 830 |
| | | | | | | 87.25 | 0.75 | 749 | 658 |
| BMR005 | 466,254 | 6,502,138 | 95 | -90 | 0 | 94 | 0.75 | 1,114 | 1289 |
| BMR006 | 465,991 | 6,501,688 | 95 | -90 | 0 | 87.5 | 0.5 | 389 | 623 |
| BMR006 | 465,991 | 6,501,688 | 95 | -90 | 0 | 92.75 | 1.25 | 1,062 | 1137 |
| BMR007 | 466,109 | 6,501,790 | 95 | -90 | 0 | 94.25 | 0.75 | 1,478 | 1878 |
| BMR008 | 466,139 | 6,501,514 | 96 | -90 | 0 | 90.25 | 1.5 | 1,427 | 1167 |
| | | | | | | 96.25 | 1 | 1,111 | Not available |
| BMR009 | 465,992 | 6,501,417 | 96 | -90 | 0 | 92 | 0.75 | 409 | 511 |
| | | | | | | 94 | 0.75 | 521 | 523 |
| BMR010 | 465,869 | 6,501,327 | 95 | -90 | 0 | 92.5 | 0.5 | 587 | 857 |
| BMR011 | 466,008 | 6,501,167 | 96 | -90 | 0 | 87.25 | 0.5 | 834 | Not available |
| | | | | | | 94 | 0.75 | 425 | Not available |
| BMR012 | 466,242 | 6,501,889 | 95 | -90 | 0 | 79.75 | 0.5 | 325 | 828 |
| | | | | | | 84 | 0.5 | 389 | 692 |
| | | | | | | 85.5 | 0.75 | 501 | 1327 |
| | | | | | | 95.5 | 1.5 | 766 | 808 |
| BMR013 | 466,400 | 6,501,958 | 95 | -90 | 0 | 90.25 | 0.75 | 391 | 616 |
| BMR014 | 466,521 | 6,502,072 | 95 | -90 | 0 | 96 | 0.5 | 392 | 920 |
| | | | | | | 101.75 | 1.25 | 1,488 | 3024 |
| BMR015 | 466,615 | 6,502,179 | 95 | -90 | 0 | 105.25 | 0.5 | 582 | 1594 |
| BMR016 | 466,242 | 6,501,637 | 96 | -90 | 0 | 95.5 | 0.75 | 478 | 652 |
| BMR017 | 466,360 | 6,501,723 | 96 | -90 | 0 | 85 | 0.5 | 381 | 1262 |
| BMR018 | 466,494 | 6,501,812 | 96 | -90 | 0 | 74.8 | 0.5 | 411 | 503 |
| | | | | | | 85.55 | 0.75 | 775 | 2076 |
| | | | | | | 87.3 | 0.5 | 429 | 440 |
| | | | | | | 93.55 | 1.25 | 1,389 | 1662 |
| BMR019 | 466,612 | 6,501,917 | 96 | -90 | 0 | 83 | 0.5 | 311 | 417 |
| | | | | | | 86.25 | 0.5 | 828 | 1205 |
| BMR020 | 466,137 | 6,501,263 | 96 | -90 | 0 | 88 | 2 | 584 | Not available |
| | | | | | | 96.75 | 0.5 | 320 | Not available |
| BMR021 | 466,278 | 6,501,350 | 96 | -90 | 0 | 81 | 2 | 395 | 676 |
| | | | | | | 91 | 0.5 | 265 | 176 |
| | | | | | | 95.25 | 1 | 787 | 943 |
| BMR022 | 466,384 | 6,501,464 | 96 | -90 | 0 | 88.5 | 1.25 | 1,056 | 1153 |
| | | | | | | 94.75 | 0.75 | 799 | 781 |
| BMR023 | 466,509 | 6,501,563 | 96 | -90 | 0 | 87.5 | 0.75 | 1,032 | 1505 |
| | | | | | | 90.75 | 0.5 | 362 | 199 |
| | | | | | | 92 | 0.75 | 759 | 862 |
| BMR024 | | | | | | 84 | 0.5 | 470 | 1256 |
| | | | | | | 88.5 | 0.5 | 209 | 793 |
| BMR025 | 466,760 | 6,501,764 | 96 | -90 | 0 | 85.25 | 1.5 | 989 | Not available |
| | | | | | | 88.25 | 1.25 | 1,436 | Not available |
| | | | | | | 104 | 1.25 | 776 | Not available |
| | | | | | | 105.75 | 0.5 | 273 | Not available |
| BMR026 | 466,872 | 6,501,616 | 96 | -90 | 0 | 76 | 0.5 | 759 | 1154 |
| | | | | | | 80.25 | 1 | 717 | 1036 |
| | | | | | | 86.25 | 0.75 | 593 | 1425 |
| BMR027 | 467,279 | 6,500,423 | 96 | -90 | 0 | 90.75 | 1 | 956 | 1665 |
| BMR028 | 467,365 | 6,500,565 | 96 | -90 | 0 | 85.5 | 0.75 | 736 | 303 |
| BMR029 | 467,466 | 6,500,703 | 96 | -90 | 0 | 85.5 | 0.75 | 1,297 | 1537 |
| | | | | | | 98.75 | 0.75 | 702 | 1103 |
| BMR030 | 467,515 | 6,500,756 | 96 | -90 | 0 | 88.5 | 0.75 | 1,676 | 1969 |
| | | | | | | 102.25 | 2.5 | 889 | Not available |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| BMR031 | 467,618 | 6,500,873 | 96 | -90 | 0 | 94.25 | 0.5 | 466 | 114 |
| | | | | | | 99.5 | 0.5 | 422 | 1045 |
| | | | | | | 101.5 | 0.5 | 297 | 533 |
| BMR032 | | | 96 | -90 | 0 | | | | No significant intersections |
| BMR033 | 467,506 | 6,501,057 | 96 | -90 | 0 | 89.2 | 1.5 | 478 | 486 |
| BMR033 | | | | | 0 | 99.65 | 1 | 1,012 | 1102 |
| BMR033 | | | | | 0 | 106.9 | 0.5 | 393 | Not available |
| BMR034 | 467,451 | 6,500,929 | 96 | -90 | 0 | 103.65 | 2 | 374 | 857 |
| BMR035 | 467,359 | 6,500,774 | 96 | -90 | 0 | 86.45 | 1 | 683 | 635 |
| | | | | | | 101.2 | 0.75 | 252 | 720 |
| BMR036 | 467,263 | 6,500,637 | 96 | -90 | 0 | 85.45 | 0.75 | 976 | 1428 |
| BMR036 | | | | | 0 | 100.45 | 0.5 | 267 | 409 |
| BMR037 | 467,161 | 6,500,505 | 96 | -90 | 0 | 87.15 | 0.75 | 995 | 1255 |
| BMR038 | 467,573 | 6,500,813 | 96 | -90 | 0 | 86.4 | 1 | 407 | 405 |
| BMR038 | | | | | 0 | 90.9 | 1 | 991 | 1143 |
| BMR038 | | | | | 0 | 94.4 | 0.5 | 308 | 412 |
| BMR038 | | | | | 0 | 100.65 | 4 | 464 | 440 |
| BMR038 | | | | | 0 | 106.15 | 1.25 | 410 | 532 |
| BMR039 | 467,397 | 6,500,177 | 96 | -90 | 0 | 92.2 | 0.5 | 742 | 802 |
| BMR040 | | | 96 | -90 | | | | | No Significant Intersections |
| BMR041 | 467,621 | 6,500,419 | 96 | -90 | 0 | 85.2 | 0.75 | 762 | 691 |
| | | | | | | 106.7 | 1.25 | 165 | 544 |
| BMR042 | 467,683 | 6,500,553 | 96 | -90 | 0 | 86.95 | 1 | 1,531 | 1332 |
| BMR042 | | | | | 0 | 103.95 | 1.5 | 605 | 1389 |
| BMR043 | 467,683 | 6,500,637 | 96 | -90 | 0 | 86.2 | 1 | 1,353 | 1780 |
| BMR043 | | | | | 0 | 96.2 | 1 | 491 | 672 |
| BMR043 | | | | | 0 | 99.95 | 1 | 297 | 439 |
| BMR043 | | | | | 0 | 105.45 | 2.5 | 1,394 | 4005 |
| BMR044 | 467,780 | 6,500,698 | 96 | -90 | 0 | 83.95 | 0.5 | 357 | 344 |
| BMR044 | | | | | 0 | 93.45 | 1.75 | 875 | 1317 |
| BMR045 | 467,811 | 6,500,766 | 96 | -90 | 0 | 110.7 | 0.75 | 887 | 1100 |
| BMR046 | 467,867 | 6,500,873 | 96 | -90 | 0 | 97.95 | 0.5 | 417 | 569 |
| BMR047 | 467,733 | 6,499,961 | 96 | -90 | 0 | 88.45 | 0.5 | 559 | Not available |
| BMR048 | | | 96 | -90 | 0 | | | | No Significant Intersections |
| BMR049 | 467,920 | 6,500,230 | 96 | -90 | 0 | 85.15 | 0.75 | 910 | 1911 |
| BMR050 | 467,992 | 6,500,365 | 96 | -90 | 0 | 80.4 | 0.75 | 398 | 548 |
| BMR050 | | | | | 0 | 85.65 | 0.5 | 484 | 286 |
| BMR050 | | | | | 0 | 95.4 | 0.5 | 374 | 584 |
| BMR050 | | | | | 0 | 103.9 | 6.75 | 524 | 940 |
| | | | | | including | 106.4 | 0.5 | 1124 | 1067 |
| | | | | | | 109.6 | 1.0 | 1096 | 3208 |
| BMR051 | | | 96 | -90 | | | | | No Significant Intersections |
| BMR052 | 468,041 | 6,500,425 | 96 | -90 | 0 | 78.95 | .5 | 447 | 435 |
| | | | | | | 86.7 | 0.75 | 1214 | 1477 |
| BMR053 | 467,967 | 6,500,294 | 96 | -90 | 0 | 86.4 | 0.75 | 665 | 308 |
| | | | | | | 104.15 | 1 | 725 | 2727 |
| | | | | | | 108.15 | 2 | 254 | 200 |
| BMR054 | 467,181 | 6,500,881 | 96 | -90 | 0 | 86.65 | 1.25 | 741 | 775 |
| | | | | | | 91.9 | 1 | 1242 | 1522 |

*[1] - $eU_3O_8$ grade data derived from natural gamma downhole tool calibrated and operated by Borehole Wireline 2(South Australia). No top cuts applied.*

*[2] - $pU_3O_8$ grade derived from Boss's Prompt Fission Neutron (PFN) tools. These have been calibrated to the groundwater and sedimentary conditions at the Honeymoon Mine Site.*

## 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.

The Project has combined JORC 2012 Mineral Resources across three main project areas of 40Mt at 650ppm $eU_3O_8$ for 57.8Mlb of contained $U_3O_8$. Including Measured Resources of 1.7MT @ 1720ppm $eU_3O_8$, Indicated Resources of 5.9Mt @ 810ppm $eU_3O_8$ and Inferred resources of 32.5Mt @ 569ppm $eU_3O_8$ reported above a 250ppm lower cutoff.

The Project also has a combined Exploration Target of between 32Mt to 78Mt at a grade of between 450ppm and 1400ppm $U_3O_8$ with a potential target endowment of between 42Mlb and 100Mlb 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. See announcement of 8th December, 2015, for further information.

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 3). 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.

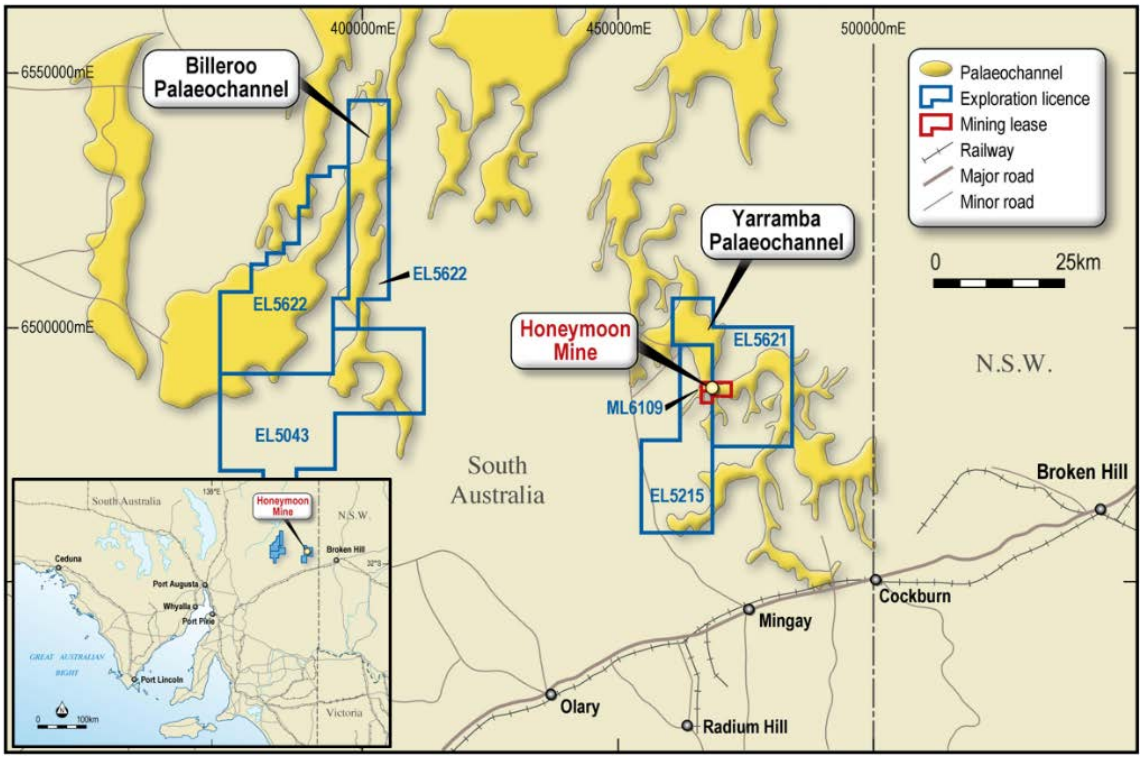


Figure 3: Honeymoon Uranium Project. The yellow shaded regions represent palaeodrainage channels which have potential to host uranium mineralisation and are the focus of exploration efforts.

For further information, contact:

Grant Davey: +61 (0) 447 753 163

***Competent Persons' Statements***

*The information in this document that relates to the Exploration Data is based on information provided by Mr. Neil Inwood, who is a Fellow of the AUSIMM. 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 document relating to the Mineral Resources is extracted from the announcements entitled 'Substantial Increase And Upgrade In Honeymoon Uranium Resource' dated 20 January 2016 , 'Boss Increases Honeymoon Uranium Project Resource' dated 8 April 2016, 'Maiden Resource of 5.2Mlb for Jason's Deposit' dated 14 June 2016 and is available to view on www.bossresources.com.au. The information relating to the Exploration Target is extracted from the announcement entitled 'Honeymoon Project Exploration Update' and dated 8 December 2015. The Company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcements and that, in the case of Mineral Resources or Ore Reserves, all the material assumptions and technical parameters underpinning the estimates in the relevant market announcement continue to apply and have not materially changed. The Company confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original market announcements.*

## Appendix 1 - JORC TABLES

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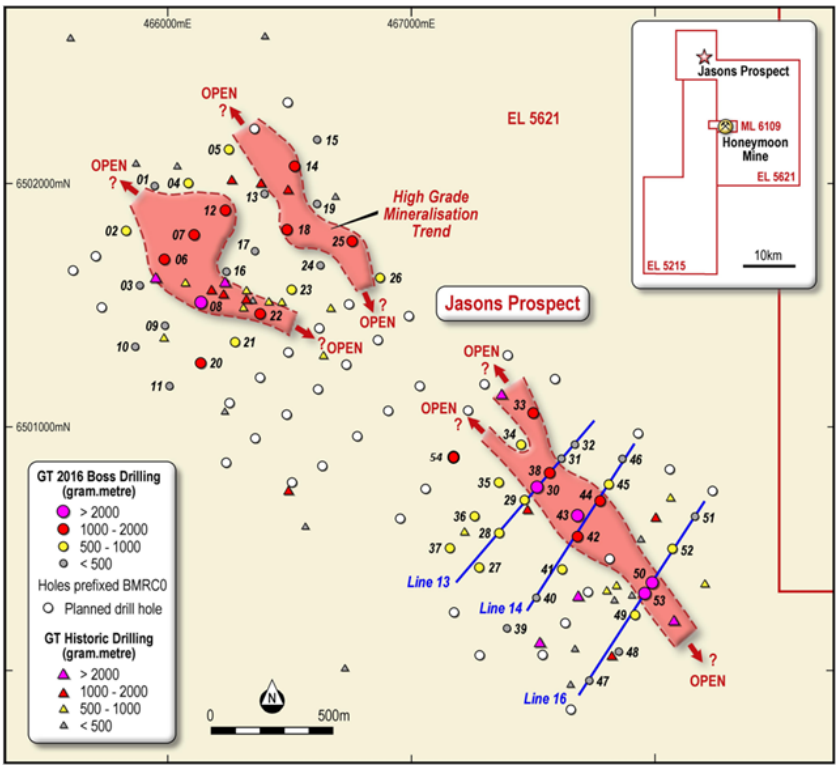
***JORC Table 1: Section 1 Sampling Techniques and Data***

| Criteria of JORC Code 2012 | Reference to the Current Report<br>Comments / Findings |
|---|---|
| *Sampling techniques* | In-hole radiometric uranium grade data was intially determined by Borehole Wireline with $eU_3O_8$ determined from the down-hole natural gamma-logs and $pU_3O_8$ . Additionally Boss is utilising it's own PFN tools to obtain $pU_3O_8$ grades which when properly calibrated reduce the efect of radioactive disequilibrium.<br>All tools were maintained by specialised electronic companies and technicians based in Adelaide.<br>Calibration for the PFN tool was regularly undertaken using in-house calibration pits available at the Honeymoon Project and for the gamma tools externally, at the certified calibration facilities at Glenside, ConyIngham St, Adelaide. Standard industry procedures were used for geophysical logging of the drill holes and estimation from the geophysical logs for the $eU_3O_8$ (from the gamma-ray logs) and $pU_3O_8$ (from the PFN instruments) grades |
| *Drilling techniques* | The holes were drilled by Watsons Drilling using the mud rotary method. The typical hole diameter is 14.5cm. |
| *Drill sample recovery* | Not applicable. Calliper readings indicate that hole size diameters are predominantly consistent. |
| *Logging* | Chip samples are collected every 2m and piles are s photographed and geologically logged. Documentation has included colour, grain size, texture, sorting, alteration and oxidation state. All mineralised intervals were geologically logged with logging standards compliant with the industry standards. |
| *Sub-sampling techniques and sample preparation* | QA/QC of the geophysical data has included systematic control of the depth logged and control of the recorded $U_3O_8$ grade values. 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. |
| *Quality of assay data and laboratory tests* | Company Geophysical tools used to collect data include:<br>• Auslog Gamma (with Guard) S422<br>• Prompt Fission Neutron tool PFN#27<br>• Prompt Fission Neutron tool PFN#32<br>• Gamma combined with guard S058<br>• Auslog 3 arm calliper A326<br>Borehole wireline tools used to collect data include: Natural gamma, Induction, SP, Density, Spectral Gamma, deviation and 3 arm calliper<br>Holes were logged in down and up directions, which provided a good control of logging consistency.<br>All geophysical tools were regularly calibrated, using in-house facilities and the certified laboratories in Adelaide.<br>QA/QC of the geophysical data has included systematic control of the depth logged and control of the recorded $eU_3O_8$ grade values.<br>The winches in the logging truck have their depth calibration checked periodically. |
| *Verification of sampling and assaying* | 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. |

| | |
|---|---|
| *Location of data points* | Positions are set out using a Garmin handheld GPS, after drilling.<br>The projection adopted for surveying is GDA 94, MGA zone 54 with AHD elevation. All surveys were tied to the existing registered base stations.<br>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. |
| *Data spacing and distribution* | Drill spacing is approximately 100m x 180m. Uranium grade is composited to 0.25cm to aid in interpretation. |
| *Orientation of data in relation to geological structure* | All holes are drilled vertically which provides an accurate intersection of the flat laying mineralised bodies. |
| *Sample security* | N/A |
| *Audits or reviews* | N/A |

### *JORC Table 1: Section 2 Reporting of Exploration Results*

| **Criteria of JORC Code 2012** | **Reference to the Current Report**<br>**Comments / Findings** |
|---|---|
| *Mineral tenement and land tenure status* | The Project consists of 1 granted Mining Lease, 5 granted Exploration Licenses, 8 Retention Leases and 2 Miscellaneous Purposes Licenses.<br><br>The Mining license expires in 2023, exploration licenses expire in 2017 (except EL 5043 which expires in 2016). |
| *Exploration done by other parties* | The Honeymoon deposit and surrounding areas of the Yarramba palaeochannel have been intensely explored and systematically drilled starting from 1969.<br><br>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 2016. |
| *Geology* | Palaeochannel type sandstone hosted uranium roll and tabular style. |
| *Drill hole Information* | See previously exploration announcements and drillhole collar diagrams. The topography in this region is predominantly flat. All holes were drilled vertically with an average hole length of approximately 120m. |
| *Data aggregation methods* | Mineralised intervals were chosen based upon a nominal 250ppm $U_3O_8$ cutoff and over 50cm for reporting. Consideration was given to mineralisation defined by a combination of PFN $eU_3O_8$ and natural gamma $eU_3O_8$ co-existent intervals. |

| | |
|---|---|
| *Relationship between mineralisation widths and intercept lengths* | Drill traverses are oriented at right angle across the domain strike.<br><br>Holes are drilled vertically down. All holes have been down-hole surveyed with only minimal deviation identified (e.g. <2m over 100m). |
| *Diagrams* | Appropriate and relevant diagrams have been included in the announcement. The following diagram illustrates currently drilled holes.<br><br>  |
| *Balanced reporting* | Balanced reporting has been adhered to. See previous exploration announcements. |
| *Other substantive exploration data* | Mineralisation is still open along the strike of the domain. |
| *Further work* | Sonic holes will be planned to enable a fuller understanding of practical disequilibrium and sedimentological conditions within the deposit. Chemical analysis of core will be an important step in validating the observed PFN grades and disequilibrium effect prior to use of this data in resource estimation. |