

21 January 2021

**ASX ANNOUNCEMENT**  
ASX: APC

# AUSTRALIAN POTASH LIMITED

## LAKE WELLS GOLD JV UPDATE

### Lake Wells Gold Project, Yamarna WA, St Barbara Limited earning 70%

Australian Potash Limited (ASX: APC) (**APC** or the **Company**) is pleased to provide an update on activities and operations at the Lake Wells Gold Project.

### Highlights

- Drilling by Joint Venture partner St Barbara Limited (St Barbara) has continued to expand the footprint and tenor of gold mineralisation
- Mineralised corridor exceeding 9 kilometres in length delineated
- Highest grade air-core (AC) assay results from regional scale drilling program returned:
  - LWAC0900: 1m @ 3.88g/t Au from 47m
  - LWAC0979: 3m @ 2.03g/t Au from 62m including 1m @ 5.53g/t Au from 62m and 4m @ 0.33g/t Au from 71m
  - LWAC0824: 3m @ 0.99g/t Au from 53m including 1m @ 2.46g/t Au from 55m and 1m @ 0.111g/t Au from 58m
- Diamond core drill program underway with two holes of a three-hole program completed and assays expected from March 2021
- A 19 hole, 3,400 metre Reverse Circulation (RC) drill program underway with assays expected from March 2021

### Managing Director and CEO, Matt Shackleton, commented:

*“These high-grade AC results confirm our belief that the Lake Wells Gold Project has the potential to host a significant gold deposit. After three years of methodical analysis, the joint venture is now focusing in on targets where we can test the true potential of the area. Like our neighbours to the south, diligent and persistent exploration is paying off.*”

*“With the diamond and RC drilling underway, it is an exciting time for us and this emerging mineral province.*”

*“Nearly 60,000m of AC drilling has been completed and we are extremely pleased with the work conducted and results generated by our valued joint venture partner, St Barbara. We look forward to advancing this project together.”*

# Lake Wells Gold Project



Figure 1: Project location map showing the South Yamarna Anomaly Camp (SYAC)

## Lake Wells Gold Project – Current Work Program Results

APC's earn-in joint venture (EIJV) partner at the Lake Wells Gold Project, St Barbara, has continued to expand the footprint and tenor of gold mineralisation at the Lake Wells Gold Project. Results reported today confirm the strong potential for the project to host a significant gold deposit.

Gold focused, regional scale, aircore (AC) exploration drilling under the EIJV commenced on 3 April 2019. A 338 hole, 19,853m AC drill program was completed in H1 FY21. To date, 1,119 AC holes have been completed for a total of 58,614 metres (Figure 2). All H1 FY21 AC samples have been submitted for assay, and results have been received. Selected 1m samples through zones of elevated gold mineralisation were also submitted for final assay, with these results reported here.

Highlights of the recent work include:

- Confirmation of gold mineralised corridor exceeding 9km in length
  - High grade assay results up to **1m @ 5.53g/t Au from 62m for LWAC0979** and
  - 2020LWAC0824: 3m @ 991 ppb Au from 53m including **1m @ 2460 ppb Au from 55m** and 1m @ 111 ppb Au from 58m
  - 2020LWAC0900: **1m @ 3880 ppb Au from 47m**
  - 2020LWAC0929: 1m @ 264 ppb Au from 52m
  - 2020LWAC0979: **3m @ 2026 ppb Au from 62m** including 1m @ 5530 ppb Au from 62m and 4m @ 333 ppb Au from 71m
  - 2020LWAC1032: 1m @ 742 ppb Au from 40m
  - 2020LWAC1075: 2m @ 643 ppb Au from 42m including 1m @ 949 ppb Au from 42m
- A full list significant results is included as Table 1
- Anomalies open along strike and to the west
- Additional areas for first-pass testing have been identified

Figure 2, below shows the drill coverage through the SYAC where a plus 9km anomalous zone is apparent as defined by gold grades above background levels of less than 10ppb.

Also visible in Figure 2 is drill hole LWAC1075 at the western end of a drill line with highly anomalous gold results that is open to the west and presents a target for further extensional and infill AC drilling to determine the extent of this anomaly. Significantly, the results from LWAC1075 broadens the target area and provides a wide zone for additional first pass drill testing. Regional AC drill holes have been drilled 40m or 80m apart with line spacings ranging between 200m and 2,000m or as individual scout lines. Reported AC results are based on the 1m fire assay re-splits of original 4m composite samples or the original composite sampling.

With AC drilling generally unable to penetrate quartz veins AC assay results of the tenor reported here are very encouraging.

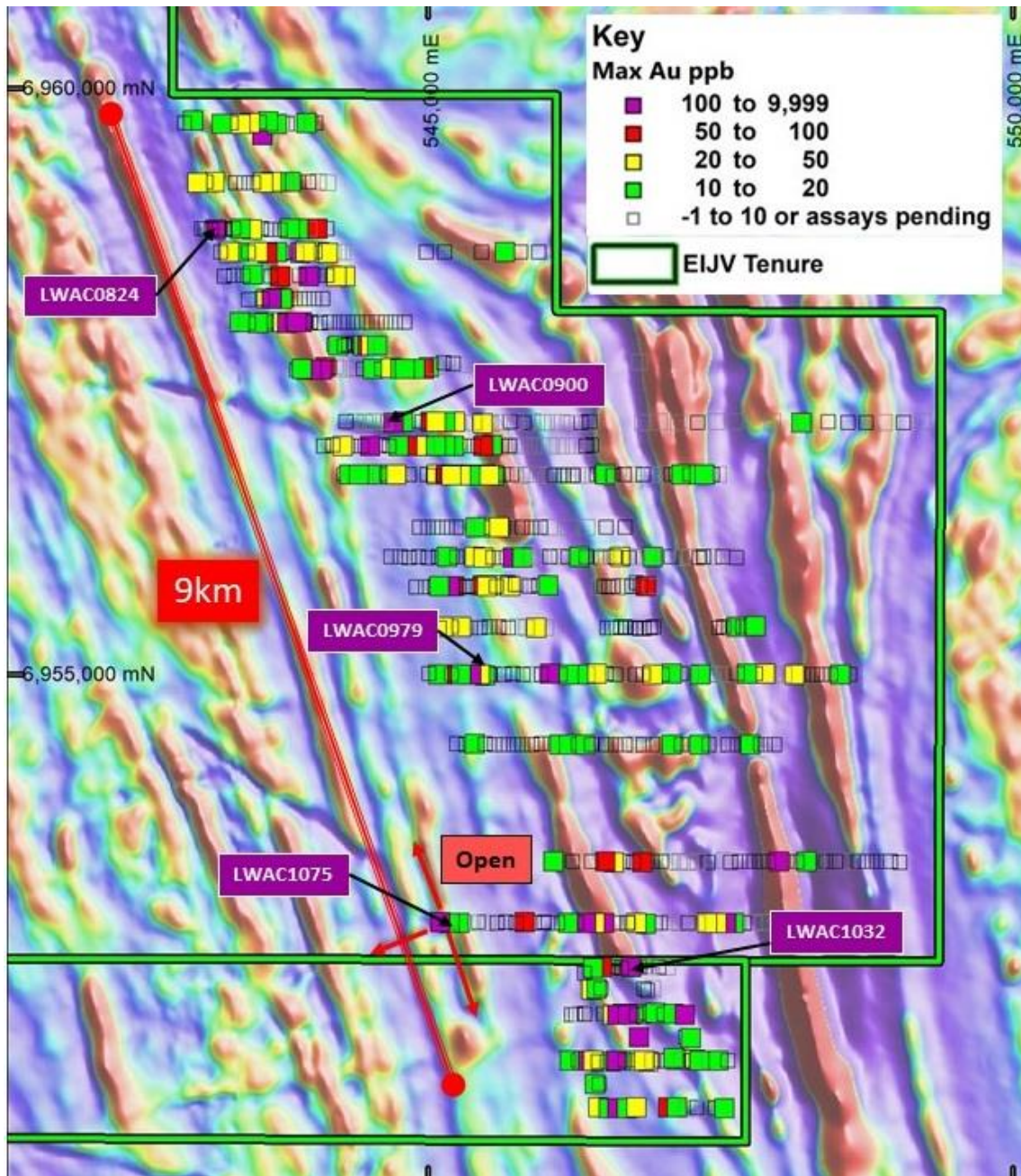


Figure 2: SYAC collar Location Map Highlighting Maximum Gold in Hole Assay Result

## Lake Wells Gold Project - Current Work Program in Progress

### Diamond Core and Reverse Circulation drill programs

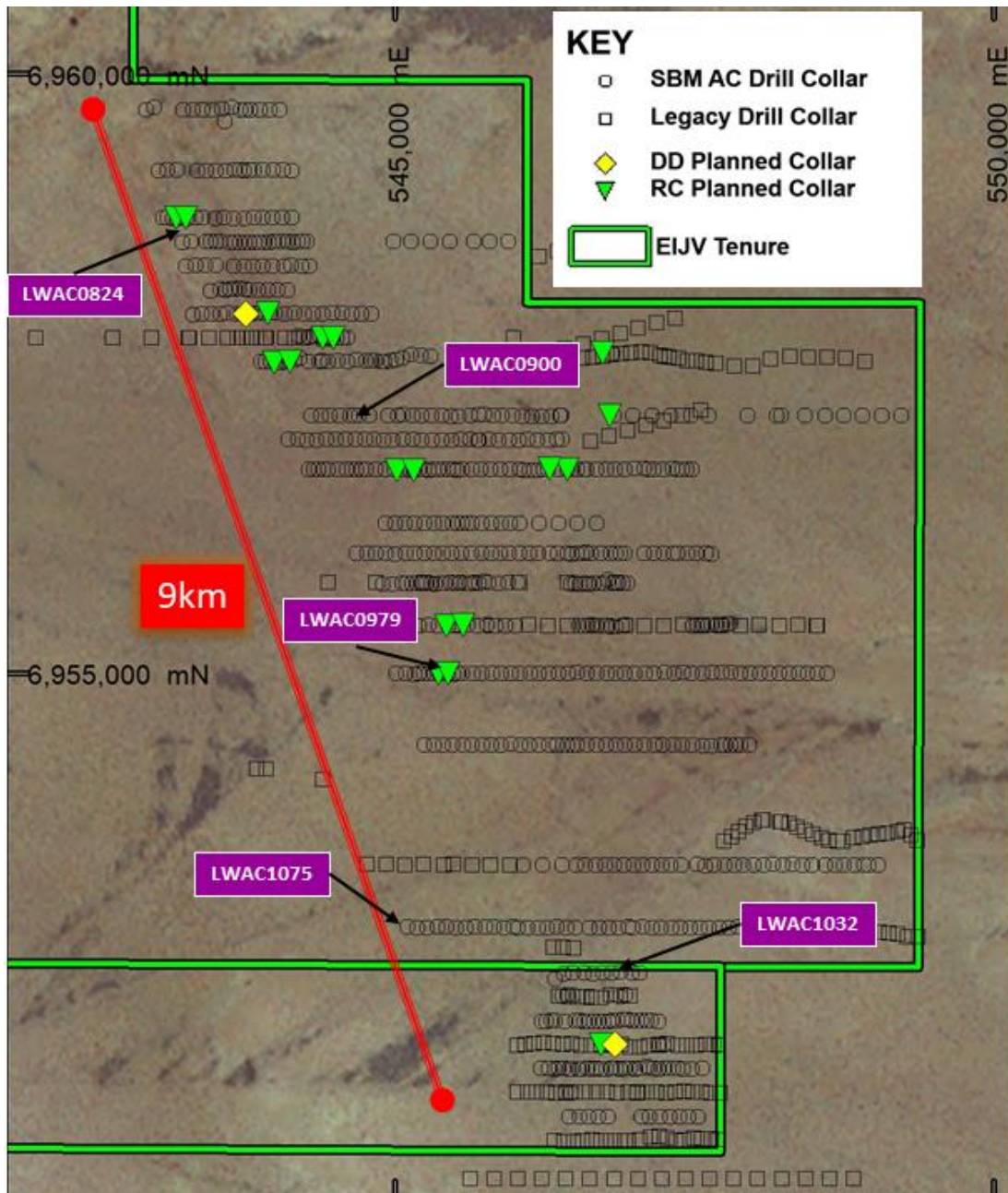
In order to test identified anomalies at depth and gain a better understanding of the host geology a limited program of diamond drilling (DD) and reverse circulation (RC) has been planned and implemented. Three DD holes have been planned, two in the SYAC area drilling beneath AC anomalies, as indicated on Figure 3. The third DD hole is underway and aimed at a conceptual target near Lake Wells.

Drilling of the two SYAC DD holes have been completed with logging and preparations for sample submission are well advanced. Core from the first DD hole shows zones of alteration, some narrow

sulphide rich quartz veining and broad zones of disseminated sulphide mineralisation. Assays from the two DD SYAC holes are expected from March 2021.

RC drilling designed to broaden the base of exploration and test anomalies at depth is underway. Initially 19 holes have been planned to work toward the targeted zones with most of the RC drill holes being planned in pairs as ‘scissor’ holes so that information on the geology, style and controls of observed mineralisation can be made. This information can be used to guide future exploration programs. The scale of the RC program is considered appropriate at this phase of exploration and results will be reported as they come to hand through the quarter, expected from March 2021.

At the time of this release 9 RC holes have been completed, with 10 holes remaining.



**Figure 3: Planned Drill Locations within the SYAC**

## Technical Discussion

APC's earn-in joint venture (EIJV) partner at the Lake Wells Gold Project, St Barbara, has continued to expand the footprint and tenor of gold mineralisation at the Lake Wells Gold Project. A 338 hole, 19,853m AC drill program was completed in H1 FY21. Results reported today confirm the strong potential for the project to host a significant gold deposit.

The Yamarna Terrane is the eastern most greenstone belt of the prolific gold producing East Yilgarn Super Terrane. Due to the remote location, exploration within the region was sporadic until the exploration spotlight was turned on the area with the discovery of the 5.79Moz (total Mineral Resources) Gruyere deposit in 2013.

The Gruyere discovery confirmed that the Yamarna belt with its strong similarities to the Kalgoorlie Terrane had the potential to host numerous multimillion-ounce gold deposits. As stated in GSWA Field Note Oct 2010 "*The greenstones of the Yamarna Terrane are similar in age and character to those in the Kalgoorlie Terrane. In the Kalgoorlie area, a c.2720–2690 Ma mafic to ultramafic rock package, which includes the Lunnon Basalt, Kambalda Komatiite, Devons Consol Basalt, and Paringa Basalt*".

Geochemical analysis of samples from the EIJV area have confirmed rocks with close affinities to the Kalgoorlie Terrane basalts, including the Lunon Basalt and the Paringa Basalt.

Adjacent tenement holder, Gold Road Resources, continues to demonstrate the underexplored nature of the Yamarna Belt and the potential to delineate deposits of merit. With over 1.1Mozs of gold in Resources currently delineated along the Yamarna Shear Zone within the Golden Highway and related deposits, and the 3.41Moz (Reserve) Gruyere Mine now operational, the EIJV Southern Yamarna Anomaly Camp (SYAC) is proving to extend this well-established mineralised corridor over 70km to the NNW (Figure 1).

As previously reported a review of information received suggests that a Kundana style of mineralisation is a key target within the SYAC area of the Lake Wells Gold project. Mineralisation at Kundana, within the Kalgoorlie Terrane, is characterised by high grade gold associated with narrow-laminated quartz veins hosted within a shear zone. Recovered gold, and remaining resources at Kundana exceed 8Mozs, making it one of the more significant gold camps in Western Australia.

This release was authorised by the Managing Director & CEO of the Company.

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## About Australian Potash Limited



K-Brite is a registered trademark brand of Australian Potash Limited (ASX: APC), representing the premium Sulphate of Potash (SOP) to be produced from the Company's flagship Lake Wells Sulphate of Potash Project (LSOP).

APC holds a 100% interest in the LSOP, located approximately 500kms northeast of Kalgoorlie, in Western Australia's Eastern Goldfields.

Following the release of the Definitive Feasibility Study (DFS) in August 2019<sup>1</sup>, APC is focused on the Front-end Engineering Design (FEED) Study, finalising offtake discussions and securing financing to develop the LSOP.

The DFS was underpinned by extensive and rigorous testwork, data, and modelling. The DFS confirmed that the LSOP will be a long life, low capital and high margin SOP producer.

### **Key outcomes from the DFS include:**

- 30-year mine life producing 150,000tpa of premium grade SOP utilising approximately 21% of the total Measured Resource estimate
- Long mine life underpinned by 3.6Mt reserve and **18.1Mt** Measured Resource estimate
- Pre-tax NPV<sub>8</sub> of **A\$665m** and an IRR of 25%
- Development capex of A\$208M with sector leading capital intensity of A\$1,387/t
- First quartile industry opex of US\$262/t providing high cash operating margins

### **Competent Person's Statement**

The information in this report that relates to Exploration Results is based on information supplied by SBM and reviewed by Christopher Shaw who is a member of the Australian Institute of Geoscientists (AIG). Mr Shaw is an employee of Australian Potash Ltd. Mr Shaw has sufficient experience relevant to the style of mineralisation and type of deposit under consideration and to the activity currently being undertaken to qualify as a Competent Person as defined in the 2012 edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr Shaw consents to the inclusion in this report of the matters based on his information in the form and context in which it appears.

### **Forward Looking Statements**

This announcement contains forward-looking statements that involve a number of risks and uncertainties. These forward-looking statements are expressed in good faith and believed to have a reasonable basis. These statements reflect current expectations, intentions or strategies regarding the future and assumptions based on currently available information. Should one or more of the risks or uncertainties materialise, or should underlying assumptions prove incorrect, actual results may vary from the expectations, intentions and strategies described in this announcement. No obligation is assumed to update forward looking statements if these beliefs, opinions and estimates should change or to reflect other future developments.

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<sup>1</sup> Refer to ASX Announcement 28 August 2019 'Definitive Feasibility Study Outstanding Financial Outcomes'. That announcement contains the relevant statements, data and consents referred to in this announcement. Apart from that which is disclosed in this document, Australian Potash Limited, its directors, officers and agents: 1. Are not aware of any new information that materially affects the information contained in the 28 August 2019 announcement, and 2. State that the material assumptions and technical parameters underpinning the estimates in the 28 August 2019 announcement continue to apply and have not materially changed.

**Table 1 Collar Location and Results Above 100ppb Au**

Hole_ID	NAT_North	NAT_East	NAT_RL	Dip / Azi	Max_Depth	mFrom	mTo	Length	Au_ppb
<b>2020LWAC0824</b>	6,958,796	543,176	506.8	-60 / 092	65	53	56	3	991
<i>including</i>						55	56	1	2,460
						58	59	1	111
<b>2020LWAC0850</b>	6,958,396	543,973	510.4	-60 / 092	52	50	51	1	221
<b>2020LWAC0856</b>	6,958,200	543,658	509.2	-60 / 092	63	61	62	1	195
<b>2020LWAC0900</b>	6,956,950	544,503	521.9	-60 / 092	53	47	48	1	3,880
<b>2020LWAC0929</b>	6,955,998	545,718	519.9	-60 / 272	58	52	53	1	264
<b>2020LWAC0971</b>	6,954,998	546,040	513.5	-60 / 092	75	62	63	1	129
<b>2020LWAC0979</b>	6,954,997	545,401	519.7	-60 / 092	78	62	65	3	2,026
<i>including</i>						62	63	1	5,530
						71	75	4	333
<b>2020LWAC0987</b>	6,951,297	546,609	523.0	-60 / 272	71	67	68	1	118
<b>2020LWAC1000</b>	6,951,699	546,363	522.0	-60 / 272	66	63	64	1	339
<b>2020LWAC1004</b>	6,951,698	546,606	521.6	-60 / 272	81	80	81	1	111
<b>2020LWAC1020</b>	6,952,096	546,614	518.3	-60 / 272	74	62	65	3	171
<b>2020LWAC1021</b>	6,952,098	546,697	517.7	-60 / 272	87	62	64	2	173
						66	73	7	195
<b>2020LWAC1027</b>	6,952,099	547,190	516.1	-60 / 272	70	65	66	1	180
<b>2020LWAC1032</b>	6,952,498	546,732	513.6	-60 / 092	51	40	41	1	742
<b>2020LWAC1042</b>	6,952,881	547,542	507.7	-60 / 092	98	72	75	3	136
						83	84	1	130
<b>2020LWAC1056</b>	6,952,876	546,505	509.1	-60 / 092	50	48	49	1	126
<b>2020LWAC1058</b>	6,952,879	546,345	510.5	-60 / 092	57	50	51	1	261
<b>2020LWAC1075</b>	6,952,878	545,101	517.4	-60 / 092	54	42	44	2	643
<i>including</i>						42	43	1	949
<b>2020LWAC1089</b>	6,953,400	547,989	498.6	-60 / 092	90	77	78	1	437
<b>2020LWAC1092</b>	6,954,999	545,361	520.2	-60 / 092	82	62	63	1	315





## Lake Wells Gold Project – JORC Code 2012 Edition

### Drilling - Section 1 Sampling Techniques and Data

(Criteria in this section apply to the succeeding section)

Criteria	Commentary
<b>Sampling techniques</b>	<ul style="list-style-type: none"> <li>• Sampling was conducted via Aircore drilling. Aircore drill holes were on 40 m or 80 m spacing with line spacing ranging between 200 m and 1,000 m or as individual scout lines.</li> <li>• Samples were collected from a rig-mounted cyclone by bucket and were then placed directly on the ground in neat rows of between ten and fifty (depending on hole depth).</li> <li>• Drill spoil was sampled with a scoop to 4 m composite samples of approximately 2.5 kg.</li> <li>• The Aircore composites were submitted to Bureau Veritas Minerals Pty Ltd - Perth where they were sorted and dried, crushed to 10 mm and pulverised to - 75 µm. A 40 g charge of pulverised sample was then digested with aqua regia with a gold analysis by ICP-MS to a detection limit of 1 ppb. The same digested sample was also tested for arsenic by ICP-AES to 1ppm detection limit.</li> <li>• Anomalous Aircore composite samples (&gt;100ppb Au) were subsampled on a metre by metre basis using an aluminium scoop. These samples were submitted to Bureau Veritas Minerals Pty Ltd- Perth where they were sorted and dried, crushed to 10mm and pulverised to -75 µm. A 40 g charge of pulverised sample was then analysed for Au, Pd &amp; Pt by Fire Assay with an ICP-AES finish to a detection limit of 1ppb.</li> <li>• Representative specimens from end of hole Aircore rock chips were stored in plastic chip trays for future reference.</li> <li>• The EOH Aircore samples, were submitted to Genalysis and were prepared in the same manner as those samples submitted to Bureau Veritas. A 10g charge of pulverised sample was then digested by four acid digestion with analysis by the Scott Halley technique (ICP-OES &amp; ICP-MS to ultra-trace levels) via 4A/OM20 method for 60 elements (Ag, Al, As, Ba, Be, Bi, Ca, Cd, Ce, Co, Cr, Cs, Cu, Dy, Er, Eu, Fe, Ga, Gd, Ge, Hf, Ho, Ln, K, La, Li, Lu, Mg, Mn, Mo, Na, Nb, Nd, Ni, P, Pb, Pr, Rb, Re, S, Sb, Sc, Se, Sm, Sn, Sr, Ta, Tb, Te, Th, Ti, Tl, Tm, U, V, W, Y, Yb, Zn &amp; Zr).</li> </ul>
<b>Drilling techniques</b>	<ul style="list-style-type: none"> <li>• Aircore drilling was carried out by an 85 mm bit. All holes were drilled to refusal, which was generally at the fresh rock interface. Drilling was carried out by Raglan Drilling who utilized a truck mounted R/A 180 Rig with 600 cfm and 350 psi.</li> </ul>
<b>Drill sample recovery</b>	<ul style="list-style-type: none"> <li>• Sample recoveries and condition (wet/dry) were routinely recorded.</li> <li>• The drill cyclone and sample buckets were cleaned regularly, in particular after wet ground was encountered. The cyclone was also cleaned several times during the course of each hole and after the completion of each hole.</li> </ul>
<b>Logging</b>	<ul style="list-style-type: none"> <li>• All drill holes were logged in full for lithology, alteration, weathering/regolith and colour.</li> <li>• Aircore logging is both qualitative and quantitative.</li> </ul>

<b>Criteria</b>	<b>Commentary</b>
<b><i>Sub-sampling techniques and sample preparation</i></b>	<ul style="list-style-type: none"> <li>• Aircore samples were collected as both dry and wet samples using a sample scoop.</li> <li>• All composite samples were sorted, dried, crushed and pulverised to produce a 40g charge prior to fire assay.</li> <li>• Samples were collected at 1 m intervals and composited in 4 m samples using a scoop to sample individual metre samples.</li> <li>• QC procedures for composite sampling involved the insertion of certified reference material, field duplicates and blanks at ratios of 1:50.</li> <li>• Bureau Veritas inserted certified standards, replicates and lab repeats.</li> </ul>
<b><i>Quality of assay data and laboratory tests</i></b>	<ul style="list-style-type: none"> <li>• The Aircore composite samples used a 40 g charge with an aqua regia digest, which is considered appropriate for analysis of the regolith dominated sample medium.</li> <li>• Certified reference material was inserted into the sample stream at a ratio of 1:50.</li> <li>• Field duplicates and blanks were inserted at a ratio of 1:50.</li> <li>• Bureau Veritas inserted certified standards, replicates and lab repeats.</li> </ul>
<b><i>Verification of sampling and assaying</i></b>	<ul style="list-style-type: none"> <li>• Primary geological and sampling data were recorded into made for purpose excel spreadsheets. Data was then transferred into the St Barbara corporate DataShed database where it was validated by an experienced database geologist.</li> <li>• No adjustments to assay data were made.</li> </ul>
<b><i>Location of data points</i></b>	<ul style="list-style-type: none"> <li>• Prior to drilling, all holes were marked out using a handheld GPS with <math>\pm 3</math> m accuracy for easting, northings and <math>\pm 10</math>m elevation. Upon completion of the program all holes were resurveyed using a DGPS with decimetre accuracy to determine the final collar positions.</li> <li>• No downhole surveys were conducted on Aircore holes.</li> <li>• All locations were captured in MGA94 zone 51 grid.</li> </ul>
<b><i>Data spacing and distribution</i></b>	<ul style="list-style-type: none"> <li>• Aircore drill holes were on 40 m or 80 m spacing with line spacings ranging between 200 m and 2,000 m or as individual scout lines.</li> <li>• Reported Aircore results are based on the 1 m Fire Assay re-splits of original 4 m composite samples or the original composite sampling.</li> </ul>
<b><i>Orientation of data in relation to geological structure</i></b>	<ul style="list-style-type: none"> <li>• The majority of Aircore drill holes had a dip and azimuth of -60/270 or -60/090. AC drill traverses were designed perpendicular to the regional structures known to control mineralisation. This typically east – west.</li> </ul>
<b><i>Sample security</i></b>	<ul style="list-style-type: none"> <li>• Only trained and experienced contractors and company personnel were allowed to collect the samples; all samples were held within a secure company location before dispatch to Bureau Veritas in Perth for Au analysis.</li> </ul>
<b><i>Audits or reviews</i></b>	<ul style="list-style-type: none"> <li>• No audits or reviews of sampling protocols have been completed.</li> </ul>

## Drilling - Section 2 Reporting of Exploration Results

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

<b>Criteria</b>	<b>Commentary</b>
<b>Mineral tenement and land tenure status</b>	<ul style="list-style-type: none"> <li>The Lake Wells Gold Project comprises 13 tenements and are wholly owned by Australian Potash Limited. These include: E38/3018, E38/1903, E38/2988, M38/1275, E38/3021, E38/3028, E38/2113, E38/3224, E38/3225, E38/3226, E38/2505, E38/3270 and E38/2901.</li> <li>St Barbara Limited entered into an Earn-In and Joint Venture with Australian Potash Limited on the Lake Wells Gold Project on 8 October 2018.</li> </ul>
<b>Exploration done by other parties</b>	<ul style="list-style-type: none"> <li>There have been numerous historical holders of the project area which covers over ~976 square kilometres.</li> <li>Exploration has been conducted by numerous companies including but not limited to: Goldphyre Resources Ltd, Anglogold Ashanti Australia Ltd, Australian Potash, Utah Development Corporation, Gold Partners NL, Kilkenny Gold NL, Johnsons Well Mining, Croesus Mining NL, Oroya Mining Limited, Western Mining Corporation Ltd, RGC Exploration Pty Ltd.</li> </ul>
<b>Geology</b>	<ul style="list-style-type: none"> <li>SBM is targeting Archean orogenic gold mineralisation near major regional faults.</li> <li>The tenement package covers Archaean greenstones within the highly prospective Yamarna Terrane of the Yilgarn Craton. The Lake Wells JV project covers portions of the prospective Yamarna Shear Zone, which passes through the southeastern portion of the project.</li> </ul>
<b>Drill hole Information</b>	<ul style="list-style-type: none"> <li>Drill hole information for holes returning significant results have been reported in the intercept table. Included in the intercept table are collar position obtained by DGPS pickup, hole dip and azimuth acquired from hand held compass and clinometre, composited mineralised intercepts lengths and depth as well as hole depth. Metres below surface (mbs) for intercepts were calculated for the start of the intercept.</li> </ul>
<b>Data aggregation methods</b>	<ul style="list-style-type: none"> <li>Broad down hole intercepts are reported as length weighted averages using a cut-off of 100 ppb Au. Such intercepts may include material below cut-off but no more than 1 sequential metre of such material and except where the average drops below the cut-off.</li> <li>No high grade cut is applied.</li> <li>No metal equivalent values are used for reporting exploration results.</li> </ul>
<b>Relationship between mineralisation widths and intercept lengths</b>	<ul style="list-style-type: none"> <li>Down hole length is reported for all holes; true width is not known as the orientation of mineralisation is not fully understood.</li> </ul>
<b>Other substantive exploration data</b>	<ul style="list-style-type: none"> <li>Included in the body of the report.</li> </ul>
<b>Diagrams</b>	<ul style="list-style-type: none"> <li>Diagrams show all drill holes material and immaterial to Exploration Results.</li> </ul>
<b>Balanced reporting</b>	<ul style="list-style-type: none"> <li>Details of all holes material to Exploration Results have been reported in the intercept table, and all other drill holes drilled during the reporting period are highlighted on diagrams included in the report.</li> </ul>
<b>Other substantive exploration data</b>	<ul style="list-style-type: none"> <li>Included in the body of the report.</li> </ul>
<b>Diagrams</b>	<ul style="list-style-type: none"> <li>Diagrams show all drill holes material and immaterial to Exploration Results.</li> </ul>

<b>Criteria</b>	<b>Commentary</b>
<b><i>Balanced reporting</i></b>	<ul style="list-style-type: none"> <li>• Details of all holes material to Exploration Results have been reported in the intercept table, and all other drill holes drilled during the reporting period are highlighted on diagrams included in the report.</li> </ul>
<b><i>Other substantive exploration data</i></b>	<ul style="list-style-type: none"> <li>• Data is included in the body of the report.</li> </ul>
<b><i>Further Work</i></b>	<ul style="list-style-type: none"> <li>• Further exploration Aircore as well as the first Diamond and RC drill holes are planned and are discussed in the body of the report.</li> </ul>

