

**29 January 2019**

## **December 2018 Quarterly Activities Report**

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### **HIGHLIGHTS**

- **Exceptional Definitive Feasibility Study (DFS) delivered for the flagship Fort Cady Project**
  - DFS completed for Fort Cady Borate Project using US headquartered consultants Barr Engineering for the Study and RESPEC Consulting Inc for the conversion of Mineral Resource Estimates to Ore Reserves
  - Three phase construction program with low pre-production capex and very high margins pre and post by-product credits (>50% pre by-product credits)
  - Unlevered, post tax NPV<sub>10</sub> of US\$1.25bn (A\$1.7bn) and IRR of 41%
- **Upgraded JORC Compliant Mineral Resource Estimate for Fort Cady Borate Project**
  - Total JORC compliant Mineral Resource Estimate upgraded for the Fort Cady Borate and Lithium Deposit successfully delivering a substantial conversion of the Indicated category into a Measured category
  - Resource of 120.4 million metric tonnes ("Mt") at 6.5% B<sub>2</sub>O<sub>3</sub> (11.6% Boric Acid equivalent [H<sub>3</sub>BO<sub>3</sub>]) and 340 ppm Lithium (5% B<sub>2</sub>O<sub>3</sub> cut-off) for 7.8 Mt contained B<sub>2</sub>O<sub>3</sub> (13.9 Mt Boric Acid)
  - The revised Mineral Resource Estimate underpinned the Definitive Feasibility Study (DFS) released in the quarter
  - The conversion from Indicated to Measured was supported by the Company's testworks in the Calendar Year 2018
  - 72% of the total MRE contained within Operating Permit region awarded to American Pacific subsidiary, Fort Cady California Corp. ("FCCC"), which solely entitles FCCC to commercial scale mining
  - Mineralisation remains open to the southeast
- **Work substantially complete to enhance DFS to incorporate a low capex starter project**
  - The revision will split the current Phase One into two distinct phases designed to benefit project financing and operational efficiencies
  - Phase One A is targeting very low capex with strong financial metrics
- **Q1 CY2019 Targets**
  - **Completion of enhanced DFS to include a low capex starter project**
  - **Progression of financing and other strategic cooperation discussions**

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#### **COMPANY DIRECTORS**

Harold (Roy) Shipes – Non-Executive Chairman  
Michael X. Schlumberger - Managing Director & CEO  
Anthony Hall - Executive Director  
Stephen Hunt - Non-Executive Director  
John McKinney – Non-Executive Director



#### **ISSUED CAPITAL**

191.1 million shares  
30.9 million options

#### **REGISTERED OFFICE**

Level 24, Allendale Square  
77 St Georges Terrace, Perth  
WA, 6000, Australia

#### **US OFFICE**

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American Pacific Borate and Lithium (ASX:ABR) (“ABR” or the “Company”) is pleased to provide an update on activities at its projects in Southern California and Nevada, USA and Appendix 5B for the period ending 31 December 2018.

### Fort Cady Borate Project DFS

ABR completed the Definitive Feasibility Study (“DFS”), for its flagship Fort Cady Borate Project in California, USA. Key financial metrics are summarised below.

**Table 1| Key Financial Metrics from the DFS**

Key Financial Metrics	
Targeted production – Phase One	82ktpa boric acid 36ktpa SOP
Targeted production – Phase Two	245ktpa boric acid 73ktpa SOP
Targeted production – Phase Three	408ktpa boric acid 109ktpa SOP
Capex Estimate – Phase One (including 13% contingency)	US\$138.2m
Capex Estimate – Phase Two (including 18% contingency)	US\$191.4m
Capex Estimate – Phase Three (including 18% contingency)	US\$186.5m
Peak Capital (maximum negative cash position during build up)	US\$245.2m
Key Selling Price Assumptions (FOB gate in California)	US\$800/t boric acid US\$725/t SOP
C1 Opex Estimate – boric acid no by-product credits	US\$367.34/t
C1 Opex Estimate – boric acid with by product credits	US\$148.84/t
Targeted EBITDA in first full year of production	US\$321m (A\$441m)
Unlevered, post tax NPV <sub>10</sub>	US\$1.25bn (A\$1.7bn)
Unlevered, post tax NPV <sub>8</sub>	US\$1.59bn (A\$2.2bn)
Unlevered, post tax IRR	41%
Proven and Probable Reserves	41MT @ 6.6% B <sub>2</sub> O <sub>3</sub> 4.81MT of boric acid
Life of Mine from first production (first fourteen years from Reserves)	21 years

The DFS was substantially prepared by US headquartered Barr Engineering with the support of mineral processing expert Mr Mike Rockandel. The Reserve calculation and sign off was completed by Mrs Tabetha Stirrett of US headquartered RESPEC Consulting Inc.

Next steps include progressing financing discussions, commencing detailed engineering and ongoing work in decoupling SOP operations from the broader project, targeting increased financing options, lower upfront capex, and earlier revenues.

Construction of phase one targeted to commence in Q4 CY2019 subject to financing and permitting.



### Upgraded JORC Compliant Mineral Resource Estimate

During the Quarter the Company successfully upgraded the JORC compliant Mineral Resource Estimate (the "Resource") for the Fort Cady Borate and Lithium Deposit successfully delivering a substantial conversion of the Indicated category into a Measured category.

The upgraded Resource and resulting JORC compliant Reserve is summarised in the table below. Importantly the Resource upgrade was supported by the Company's testworks and mineralisation remains open to the southeast.

**Table 2 | JORC compliant Mineral Resource Estimate and Reserve**

JORC compliant Mineral Resource Estimate and Reserve						
Reserves	MMT	B <sub>2</sub> O <sub>3</sub> %	H <sub>3</sub> BO <sub>3</sub> %	Li ppm	B <sub>2</sub> O <sub>3</sub> MT	H <sub>3</sub> BO <sub>3</sub> MT
Proven	27.21	6.70	11.91	379	1.82	3.24
Probable	13.80	6.40	11.36	343	0.88	1.57
<b>Total Reserves</b>	<b>41.01</b>	<b>6.60</b>	<b>11.72</b>	<b>367</b>	<b>2.71</b>	<b>4.81</b>
Resources						
Measured	38.87	6.70	11.91	379	2.61	4.63
Indicated	19.72	6.40	11.36	343	1.26	2.24
<b>Total M&amp;I</b>	<b>58.59</b>	<b>6.60</b>	<b>11.72</b>	<b>367</b>	<b>3.87</b>	<b>6.87</b>
Inferred	61.85	6.43	11.42	322	3.98	7.07
<b>Total M,I&amp;I</b>	<b>120.44</b>	<b>6.51</b>	<b>11.57</b>	<b>344</b>	<b>7.84</b>	<b>13.93</b>

### Fort Cady Borate Project Low Capex Starter Project

The Company is currently enhancing its DFS to split Phase One into two distinct phases with the initial project targeted to be low capex with strong financial metrics. It is believed that this strategy will benefit project financing and operational efficiencies. The Company expects to release the results of these enhancements in early February 2019.

### Corporate

Senior management visited China in January 2019 to explore equipment and financing options for mine construction and announced plans to welcome representatives from Chinese State Owned Enterprise (SOE), Sinomach, to Fort Cady project in February to progress strategic cooperation discussions.

### Other

The Company held AU\$2.45 million cash at bank as at 31 December 2018. Refer to the attached Appendix 5B for further details.

### For further information contact:

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Investor Relations  
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## Competent Persons Statement

### Fort Cady

The information in this release that relates to Exploration Targets, Exploration Results and Mineral Resources is based on information prepared by Mr Louis Fourie, P.Ge of Terra Modelling Services. Mr Fourie is a licensed Professional Geoscientist registered with APEGS (Association of Professional Engineers and Geoscientists of Saskatchewan) in the Province of Saskatchewan, Canada and a Professional Natural Scientist (Geological Science) with SACNASP (South African Council for Natural Scientific Professions). APEGS and SACNASP are a Joint Ore Reserves Committee (JORC) Code 'Recognized Professional Organization' (RPO). An RPO is an accredited organization to which the Competent Person (CP) under JORC Code Reporting Standards must belong in order to report Exploration Results, Mineral Resources, or Ore Reserves through the ASX. Mr Fourie has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which they are undertaking to qualify as a CP as defined in the 2012 Edition of the JORC Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Mr Fourie consents to the inclusion in the release of the matters based on their information in the form and context in which it appears.

The information in this release that relates to the conversion of Mineral Resources to Ore Reserves has been prepared by Tabetha A. Stirrett of RESPEC Consulting Inc. Mrs. Tabetha A. Stirrett, P. Geo of RESPEC Consulting Inc. is a member in good standing of the Association of Professional Engineers and Geoscientists of Saskatchewan (Member #10699) and a member of the American Institute of Professional Geologists (CPG) (#11581). APEGS and CPG are a Joint Ore Reserves Committee (JORC) 'Recognised Professional Organization' (RPO). Mrs. Stirrett has sufficient Experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which they are undertaking to qualify as a CP as defined in the 2012 Edition of the JORC Australasian Code for Reporting of Exploration Results, Mineral Resource and Ore Reserves. Mrs. Stirrett consents to the inclusion in the release of the matters based on their information in the form and context in which it appears.

This report contains historical exploration results from exploration activities conducted by Duval Corp ("historical estimates"). The historical estimates and are not reported in accordance with the JORC Code. A competent person has not done sufficient work to classify the historical estimates as mineral resources or ore reserves in accordance with the JORC Code. It is uncertain that following evaluation and/or further exploration work that the historical estimates will be able to be reported as mineral resources or ore reserves in accordance with the JORC Code. The Company confirms it is not in possession of any new information or data relating to the historical estimates that materially impacts on the reliability of the historical estimates or the Company's ability to verify the historical estimates.

### Salt Wells

The information in this release that relates to Exploration Targets, Exploration Results, Mineral Resources or Ore Reserves is based on information prepared by Richard Kern, Certified Professional Geologist (#11494). Richard Kern is a licensed Professional Geoscientist registered with AIPG (American Institute of Professional Geologists) in the United States. AIPG is a Joint Ore Reserves Committee (JORC) Code 'Recognized Professional Organization' (RPO). An RPO is an accredited organization to which the Competent Person (CP) under JORC Code Reporting Standards must belong in order to report Exploration Results, Mineral Resources, or Ore Reserves through the ASX.

Richard Kern has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which they are undertaking to qualify as a CP as defined in the 2012 Edition of the JORC Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Richard Kern consents to the inclusion in the release of the matters based on their information in the form and context in which it appears.

This release contains historical exploration results from exploration activities conducted by Great Basin Resources Inc. ("historical estimates"). The historical estimates and are not reported in accordance with the JORC Code. A competent person has not done sufficient work to classify the historical estimates as mineral resources or ore reserves in accordance with the JORC Code. It is uncertain that following evaluation and/or further exploration work that the historical estimates will be able to be reported as mineral resources or ore reserves in accordance with the JORC Code. The Company confirms it is not in possession of any new information or data relating to the historical estimates that materially impacts on the reliability of the historical estimates or the Company's ability to verify the historical estimates.



## About American Pacific Borate and Lithium Limited

American Pacific Borate and Lithium Limited is focused on advancing its 100% owned Fort Cady Borate Project located in Southern California, USA. Fort Cady is a highly rare and large colemanite deposit and is the largest known contained borate occurrence in the world not owned by the two major borate producers Rio Tinto and Eti Maden. The JORC compliant Mineral Resource Estimate and Reserve is presented below. Importantly, it comprises 13.93Mt of contained boric acid.

In excess of US\$60m has been spent at Fort Cady, including resource drilling, metallurgical test works, well injection tests, permitting activities and substantial small-scale commercial operations and test works.

A Definitive Feasibility Study (“DFS”) was completed in December 2018 delivering compelling financial metrics including steady state production target of 410ktpa of boric acid and 110ktpa of SOP, pre production capex including a 13% contingency of US\$138m, unlevered post tax NPV<sub>10</sub> of US\$1.25bn (NPV<sub>8</sub> of US\$1.59bn) and an unlevered post tax IRR of 41%.

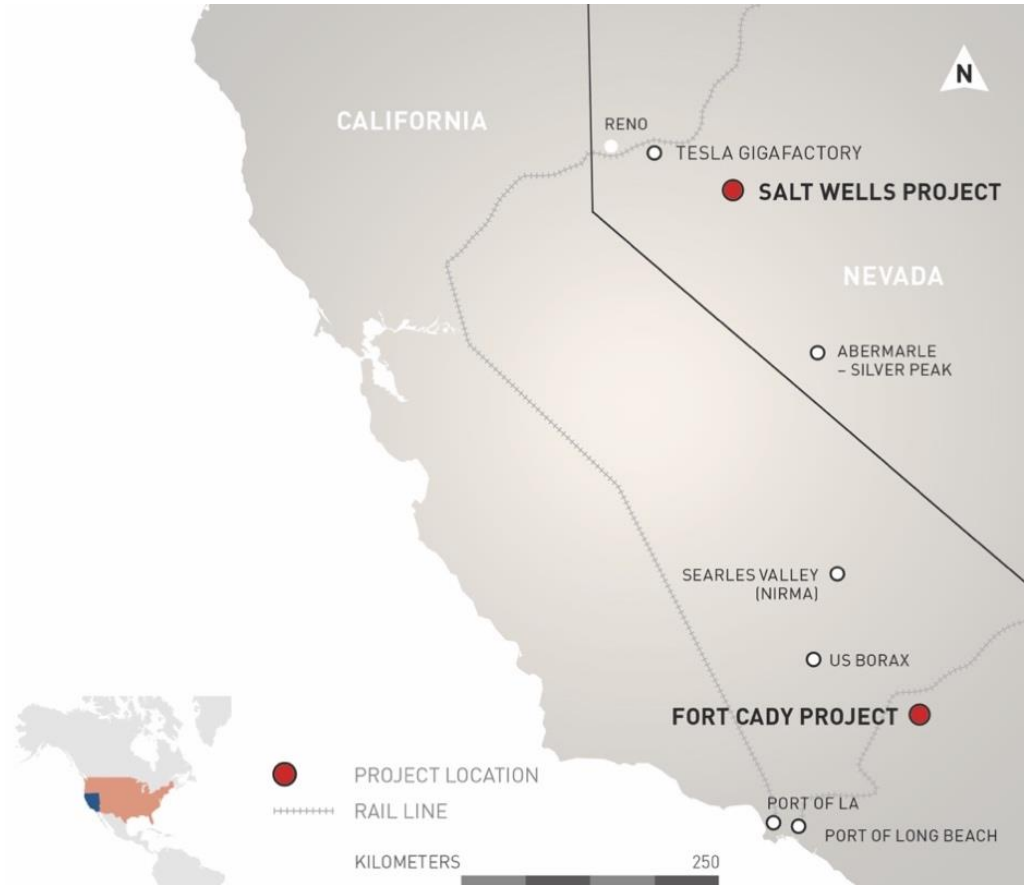
**Table 3 | JORC compliant Mineral Resource Estimate and Reserve**

<b>JORC compliant Mineral Resource Estimate and Reserve</b>						
<b>Reserves</b>	<b>MMT</b>	<b>B<sub>2</sub>O<sub>3</sub> %</b>	<b>H<sub>3</sub>BO<sub>3</sub> %</b>	<b>Li ppm</b>	<b>B<sub>2</sub>O<sub>3</sub> MT</b>	<b>H<sub>3</sub>BO<sub>3</sub> MT</b>
<b>Proven</b>	27.21	6.70	11.91	379	1.82	3.24
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<b>Total M,I&amp;I</b>	<b>120.44</b>	<b>6.51</b>	<b>11.57</b>	<b>344</b>	<b>7.84</b>	<b>13.93</b>

In 1994 the Plan of Operations (mining permit) was authorised along with the Mining and Land Reclamation Plan. These permits are in good standing and contain a full Environmental Impact Report and water rights for initial operations of 82ktpa of boric acid. The Company is currently working through a permitting process to gain three additional permits required to commence operations.

In addition to the flagship Fort Cady Project, the Company also has an earn in agreement to acquire a 100% interest in the Salt Wells North and Salt Wells South Projects in Nevada, USA on the incurrence of US\$3m of Project expenditures. The Projects cover an area of 36km<sup>2</sup> and are considered prospective for borates and lithium in the sediments and lithium in the brines within the project area. Surface salt samples from the Salt Wells North project area were assayed in April 2018 and showed elevated levels of both lithium and boron with several results of over 500ppm lithium and over 1% boron.

[www.americanpacificborate.com](http://www.americanpacificborate.com)



**Figure 1 | Location of the Fort Cady and Salt Wells Projects in the USA**

## The JORC Code, 2012 Edition – Table 1

### Section 1 Sampling Techniques and Data

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

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul style="list-style-type: none"> <li>Nature and quality of sampling (e.g. cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.</li> <li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li> <li>Aspects of the determination of mineralisation that are Material to the Public Report.</li> <li>In cases where 'industry standard' work has been done this would be relatively simple (e.g. 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases, more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (e.g. submarine nodules) may warrant disclosure of detailed information.</li> </ul>	<ul style="list-style-type: none"> <li>No historic procedures or flow sheets were sighted that explain the historic drilling and sampling processes completed at the Fort Cady project.</li> <li>Discussions held with Pamela A.K. Wilkinson who was an exploration geologist for Duval at the time of drilling and sampling highlight that drilling through the target zone was completed via HQ diamond drilling techniques and drill core recovery was typically very good (Wilkinson, 2017).</li> <li>Sampling through the logged evaporate sequence was completed based on logged geology and geophysics. Sample intervals vary from 0.1 ft to 15 ft and sample weights varied accordingly.</li> <li>Drilling through the overburden material was completed using a rotary air blast (RAB) drilling technique with samples taken from cuttings every 10 ft.</li> </ul>
Drilling techniques	<ul style="list-style-type: none"> <li>Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (e.g. core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).</li> </ul>	<ul style="list-style-type: none"> <li>Drilling through the overburden sequence was completed using rotary air blast (RAB) drilling technique.</li> <li>Drilling through the evaporate sequence / target zone was completed using HQ diamond core.</li> </ul>
Drill sample recovery	<ul style="list-style-type: none"> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> <li>Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> <li>Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.</li> </ul>	<ul style="list-style-type: none"> <li>Drill core recovery has been reported by Duval geologists to be excellent (95%-100%).</li> <li>Drill core recovery was not routinely recorded.</li> <li>Geologists highlighted areas of poor recovery during geological logging by making comment within the geological log at the appropriate drill hole intervals.</li> <li>A review of the limited amount of drill core that is stored at site indicates drill core recovery was good. Refer to Appendix E for pictures of drill core.</li> </ul>

Criteria	JORC Code explanation	Commentary
Logging	<ul style="list-style-type: none"> <li>Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.</li> <li>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</li> <li>The total length and percentage of the relevant intersections logged.</li> </ul>	<ul style="list-style-type: none"> <li>Geological logging was completed on every drillhole.</li> <li>Geological logs for all drill holes have been observed and are held by APBL.</li> <li>Downhole geophysical logs (Gamma Ray Neutron logs) were completed on each of the Duval exploration drill holes. Calibration procedures are unknown.</li> <li>Downhole density logs were completed on select drill holes (DHB1, DHB3, DHB7, DHB8)</li> </ul>
Sub-sampling techniques and sample preparation	<ul style="list-style-type: none"> <li>If core, whether cut or sawn and whether quarter, half or all core taken.</li> <li>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</li> <li>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> <li>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</li> <li>Measures taken to ensure that the sampling is representative of the in-situ material collected, including for instance results for field duplicate/second-half sampling.</li> <li>Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>	<ul style="list-style-type: none"> <li>Drill core was transported from site to the Duval office in Tucson, Arizona.</li> <li>Following a review of logging and geophysical data, prospective zones were identified, and drill core was marked for sampling.</li> <li>Drill core was halved and then one half was halved again.</li> <li>The procedure used for obtaining a ¼ core sample is currently unknown. A review of limited drill core present on site (DBH16) highlights that the core was cut using a diamond saw.</li> <li>No evidence to date has been observed that duplicate samples were taken.</li> <li>The entire ¼ core sample was crushed and split to obtain a sample for analysis. The crushing process, splitting process, size of crushed particles and amount of sample supplied to laboratory for analysis are unknown.</li> </ul>
Quality of assay data and laboratory tests	<ul style="list-style-type: none"> <li>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</li> <li>For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.</li> <li>Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.</li> </ul>	<ul style="list-style-type: none"> <li>Historic analytical procedures and associated quality control and quality assurance completed by Duval are unknown.</li> <li>Discussions held with Pamela A.K. Wilkinson, who was an exploration geologist for Duval at the time of drilling and sampling, indicate that Duval had internal quality control and quality assurance procedures in place to ensure that assay results were accurate.</li> <li>More than 3,000 samples were analysed by Duval at either their Tucson, West Texas (Culberson Mine) or New Mexico (Duval Potash mine) laboratories. Elements analysed for were Al, As, Ba, B<sub>2</sub>O<sub>3</sub>, CO<sub>3</sub>, Ca, Fe, K, Li, Pb, Mo, Mg, Na, Rb, S, Si, Sr, Ti, Zn, Zr.</li> <li>Mineralogy was identified from XRF analysis. XRF results were reportedly checked against logging and assay data (Wilkinson, 2017).</li> </ul>



Criteria	JORC Code explanation	Commentary
Verification of sampling and assaying	<ul style="list-style-type: none"> <li>The verification of significant intersections by either independent or alternative company personnel.</li> <li>The use of twinned holes.</li> <li>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</li> <li>Discuss any adjustment to assay data.</li> </ul>	<ul style="list-style-type: none"> <li>Verification of significant intersections by independent or alternative company personnel has not been completed.</li> <li>Most of drill core has been discarded and verification of results from the remaining drill core is not possible.</li> <li>Data entry, data verification and data storage processes are unknown.</li> <li>Hard copy assay reports, geological logs and geophysical logs have been sourced and are stored with APBL.</li> </ul>
Location of data points	<ul style="list-style-type: none"> <li>Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.</li> <li>Specification of the grid system used.</li> <li>Quality and adequacy of topographic control.</li> </ul>	<ul style="list-style-type: none"> <li>No procedural documentation sighted regarding historic surveying procedure of drillhole collars. Surveying procedure used and associated accuracy is unknown. Checks by PT GMT Indonesia in 2015 on collar coordinates highlighted differences more than 50 ft in easting and northing locations were present for drill holes DBH7, DBH18, DBH20, DBH25, DBH26, DBH31, DBH33 and DBH34.</li> <li>A total of 21 drill holes do not have surveyed collar elevations (DHB18, DHB19, DHB20, DHB21, DHB22, DHB23, DHB24, DHB25, DHB26, DHB27, DHB28, DHB29, DHB30, DHB31, DHB32, DHB33, DHB34, P2, P3, P4 and P5). These drill holes have been currently assigned an elevation from Google Earth.</li> <li>No downhole surveys are present for Duval exploration drill holes (DHB series of drill holes). Downhole surveys for some production / injection drill holes were completed (SMT1, SMT2, SMT6, P5, P6 and P7). A review of this data highlights that significant deviation of the drill holes has not occurred, and the end of drill hole position compares favourably (within 10 m) with the drill hole collar location. The exception is drillhole P5 where the end of this planned vertical drill hole is situated approximately 40 m laterally from the drill hole collar position.</li> </ul>
Data spacing and distribution	<ul style="list-style-type: none"> <li>Data spacing for reporting of Exploration Results.</li> <li>Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.</li> <li>Whether sample compositing has been applied.</li> </ul>	<ul style="list-style-type: none"> <li>Drilling is completed on an 800 ft grid spacing. Drill holes were drilled vertically.</li> <li>Drilling on an 800 ft spacing is appropriate to define the approximate extents and thickness of the evaporite sequence. Infill drilling will be required to accurately define the true extents, thickness and grade of mineralisation within the deposit.</li> <li>Mineralised sections of drill core have a similar thickness in adjacent drill holes and significant variability in thickness is not expected on a local scale.</li> </ul>

Criteria	JORC Code explanation	Commentary
<i>Orientation of data in relation to geological structure</i>	<ul style="list-style-type: none"> <li>• <i>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</i></li> <li>• <i>If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Exploration drilling was completed on an 800 ft grid spacing. Drill holes were drilled vertically and intersect the relative flat lying deposit close to perpendicular to the dip of the deposit. The southwest margin of the deposit is quite sharp and is considered fault controlled.</li> </ul>
<i>Sample security</i>	<ul style="list-style-type: none"> <li>• <i>The measures taken to ensure sample security.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Sample security measures during transport and sample preparation are unknown.</li> </ul>
<i>Audits or reviews</i>	<ul style="list-style-type: none"> <li>• <i>The results of any audits or reviews of sampling techniques and data.</i></li> </ul>	<ul style="list-style-type: none"> <li>• No details sighted on any previous sampling reviews or audits.</li> </ul>

## Section 2 Reporting of Exploration Results

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

Criteria	JORC Code explanation	Commentary
<i>Mineral tenement and land tenure status</i>	<ul style="list-style-type: none"> <li><i>Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.</i></li> <li><i>The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.</i></li> </ul>	<ul style="list-style-type: none"> <li>The APBL project area consists of approximately 4,409 acres of which 240 acres are patented lands owned by Fort Cady (California) Corporation; 269 acres of patented property with surface rights held by Fort Cady (California) Corporation and mineral rights held by the State of California; 2,380 acres of unpatented mining claims held by Fort Cady (California) Corporation; and 1,520 acres of unpatented mining claims leased by Fort Cady (California) Corporation from Elementis Specialties Inc., owner and operator of the Hector Mine, an adjoining industrial mineral facility. In addition, 100 acres of unpatented mill claims are held by the Company which is designated for water wells. APBL intend to increase its land tenure by 464 acres via negotiations with Southern California Edison. The below table lists the land titles which cover the APBL's Fort Cady project and surrounding exploration regions:</li> </ul>

Criteria	JORC Code explanation	Commentary												
		<table border="1"> <thead> <tr> <th data-bbox="1249 261 1704 288">Land Title Type</th> <th data-bbox="1704 261 1995 288">Land Titles</th> </tr> </thead> <tbody> <tr> <td data-bbox="1249 288 1704 405">Private (Patented) Property with surface and mineral rights in Fee Simple Title owned by FCCC</td> <td data-bbox="1704 288 1995 405">Parcels 0529-251-01; 0529-251-03</td> </tr> <tr> <td data-bbox="1249 405 1704 521">Private (Patented) Property with surface rights in Fee Simple Title owned by FCCC; Mineral rights owned by State of California</td> <td data-bbox="1704 405 1995 521">Parcel 0529-251-04</td> </tr> <tr> <td data-bbox="1249 521 1704 655">Unpatented Placer Mining Claims held under Lease to FCCC (from Elementis)</td> <td data-bbox="1704 521 1995 655">Company 1 Group; Company 4; Litigation 1 Group; Litigation 2; Litigation 3; Litigation 4 Group; Litigation 5 Group; Litigation 6; Litigation 11; Geysers View 1</td> </tr> <tr> <td data-bbox="1249 655 1704 762">Unpatented Lode Mining Claims held under Lease to FCCC (from Elementis)</td> <td data-bbox="1704 655 1995 762">HEC 124 - 127; HEC 129; HEC 131; HEC 343; HEC 344; HEC 365; HEC 369; HEC 371; HEC 372; HEC 374 - 376</td> </tr> <tr> <td data-bbox="1249 762 1704 927">Unpatented Placer Mining Claims Recorded and Located by FCCC</td> <td data-bbox="1704 762 1995 927">HEC #19; HEC #21; HEC# 23; HEC#25; HEC #34 - #41; HEC #43 - #67; HEC #70 - #82; HEC #85 - #93; HEC #182; HEC #184; HEC #288; HEC #290; HEC #292; HEC #294; HEC #296 - #297; HEC #299 - #350</td> </tr> </tbody> </table>	Land Title Type	Land Titles	Private (Patented) Property with surface and mineral rights in Fee Simple Title owned by FCCC	Parcels 0529-251-01; 0529-251-03	Private (Patented) Property with surface rights in Fee Simple Title owned by FCCC; Mineral rights owned by State of California	Parcel 0529-251-04	Unpatented Placer Mining Claims held under Lease to FCCC (from Elementis)	Company 1 Group; Company 4; Litigation 1 Group; Litigation 2; Litigation 3; Litigation 4 Group; Litigation 5 Group; Litigation 6; Litigation 11; Geysers View 1	Unpatented Lode Mining Claims held under Lease to FCCC (from Elementis)	HEC 124 - 127; HEC 129; HEC 131; HEC 343; HEC 344; HEC 365; HEC 369; HEC 371; HEC 372; HEC 374 - 376	Unpatented Placer Mining Claims Recorded and Located by FCCC	HEC #19; HEC #21; HEC# 23; HEC#25; HEC #34 - #41; HEC #43 - #67; HEC #70 - #82; HEC #85 - #93; HEC #182; HEC #184; HEC #288; HEC #290; HEC #292; HEC #294; HEC #296 - #297; HEC #299 - #350
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<p>Exploration done by other parties</p>	<ul style="list-style-type: none"> <li>Acknowledgment and appraisal of exploration by other parties.</li> </ul>	<ul style="list-style-type: none"> <li>Commencement of exploration activities in the Hector Basin occurred in the early 1960's, when exploration companies realised that the Hector Basin had a similar geological setting to the Kramer Basin to the northwest that hosted the massive Boron deposit. Discovery of the Fort Cady borate deposit occurred in 1964 when Congdon and Carey Minerals Exploration Company found several zones of colemanite, at depths of 400 m to 500 m below surface.</li> <li>During the late 1970's the Duval Corporation became interested in the project and started land acquisition in 1978 with drilling commencing in February 1979. The first drillhole (DBH1) intersected a 27 m thick sequence of colemanite-rich material at 369 m grading better than 7% B<sub>2</sub>O<sub>3</sub>. Exploration drilling, sampling, and assaying continued for a further two years through to February 1981 with a total of 33 exploration drill holes (DBH series of holes) totalling more than 18,200 m being drilled. Approximately 5,800 m of diamond drill core was obtained. Geological</li> </ul>												

Criteria	JORC Code explanation	Commentary
		<p>and geophysical logging of each hole was completed. Following a review of logging and geophysical data, prospective zones were ¼ core sampled for chemical analysis. More than 3,000 samples were analysed at Duval's laboratories in either Tucson, West Texas (Culberson Mine) or in New Mexico (Duval Potash mine). Elements analysed for were Al, As, Ba, B<sub>2</sub>O<sub>3</sub>, CO<sub>3</sub>, Ca, Fe, K, Li, Pb, Mo, Mg, Na, Rb, S, Si, Sr, Ti, Zn, Zr.</p> <ul style="list-style-type: none"> <li>• In February 1981, the first solution mine test hole was drilled and by late 1981 a small-scale pilot plant was operational to test in-situ solution mining of the colemanite deposit. Significant processing test work was then completed by Duval with the aim of optimising the in-situ solution mining process and process design. In 1995 the Fort Cady Minerals Corp received all final approvals and permits to operate a 90,000 stpy pilot borate production facility. The pilot plant began operations in 1996, it remained on site, was modified and used for limited commercial production of calcium borate (marketed as Cady Cal 100) until 2001 when operations ceased due to owner cash flow problems. A total production tonnage of 1,942 tonnes of CadyCal 100 was reported to have been produced.</li> </ul>

Criteria	JORC Code explanation	Commentary
Geology	<ul style="list-style-type: none"> <li>• <i>Deposit type, geological setting and style of mineralisation.</i></li> </ul>	<ul style="list-style-type: none"> <li>• The project area comprises the west central portion of a Pliocene age dry lake basin (Hector Basin) which has been partially dissected by wrench and block faulting related to the San Andreas system. The Hector Basin is believed to have once been part of a much larger evaporite basin or perhaps a chain of basins in what has been termed the Barstow – Bristol Trough.</li> <li>• The main borate deposit area lies between 350 m to 450 m below the current surface. The deposit comprises a sequence of mudstone and tuff. The borate mineralisation occurs primarily as colemanite (<math>2\text{CaO} \cdot 3\text{B}_2\text{O}_3 \cdot 5\text{H}_2\text{O}</math>) in thinly laminated silt, clay and gypsum beds.</li> <li>• In plain view, the concentration of boron-rich evaporites is roughly ellipsoidal with the long axis trending N40-50W. A zone of &gt;5% <math>\text{B}_2\text{O}_3</math> mineralisation, ranging in thickness from 20 m to 68 m (70 ft to 225 ft), is approximately 600 m wide and 2,500 m long (Figure 4.3). The boron is believed to have been sourced from thermal waters that flowed from hot springs in the region during times of active volcanism. These hot springs vented into the Hector Basin that contained a large desert lake. Borates were precipitated as the thermal waters entered the lake and cooled or as the lake waters evaporated and became saturated with boron.</li> </ul>
Drill hole Information	<ul style="list-style-type: none"> <li>• <i>A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:</i> <ul style="list-style-type: none"> <li>○ <i>easting and northing of the drill hole collar</i></li> <li>○ <i>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</i></li> <li>○ <i>dip and azimuth of the hole</i></li> <li>○ <i>down hole length and interception depth</i></li> <li>○ <i>hole length.</i></li> </ul> </li> <li>• <i>If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Refer to Appendix B in Independent Geologist’s Report of the May 2017 Prospectus for drill hole listing.</li> <li>• Refer to Appendix D for drill hole location map in Independent Geologist’s Report of the May 2017 Prospectus.</li> <li>• A total of 21 drill holes do not have surveyed collar elevations (DHB18, DHB19, DHB20, DHB21, DHB22, DHB23, DHB24, DHB25, DHB26, DHB27, DHB28, DHB29, DHB30, DHB31, DHB32, DHB33, DHB34, P2, P3, P4 and P5). These drill holes have been currently assigned an elevation from Google Earth. The error in assigned elevations is estimated to be no greater than 15 m vertically. Survey pickup of all drill hole collars is planned.</li> </ul>

Criteria	JORC Code explanation	Commentary
Data aggregation methods	<ul style="list-style-type: none"> <li>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated.</li> <li>Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.</li> <li>The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> </ul>	<ul style="list-style-type: none"> <li>Drill hole data was composited to 10 ft lengths for statistical analysis and used in the PT GMT Indonesia 2015 resource estimate. No density weighting was applied in the compositing process.</li> <li>No cutting of high grade values was completed.</li> <li>Statistical analysis of the dataset highlights the distribution is positively skewed.</li> </ul>
Relationship between mineralisation widths and intercept lengths	<ul style="list-style-type: none"> <li>These relationships are particularly important in the reporting of Exploration Results.</li> <li>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</li> <li>If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g. 'down hole length, true width not known').</li> </ul>	<ul style="list-style-type: none"> <li>Exploration drilling was completed on an 800 ft grid spacing. Drill holes were drilled vertically and intersect the relative flat lying deposit close to perpendicular to the dip of the deposit. The southwest margin of the deposit is quite sharp and is considered fault controlled.</li> </ul>
Diagrams	<ul style="list-style-type: none"> <li>Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.</li> </ul>	<ul style="list-style-type: none"> <li>Refer to Figure 1 for drill hole collar location map.</li> <li>Refer also to Figures 4.4, 4.5 and 4.6 within Independent Geologists Report in APBL's May 2017 prospectus.</li> </ul>
Balanced reporting	<ul style="list-style-type: none"> <li>Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.</li> </ul>	<ul style="list-style-type: none"> <li>Refer to Appendix C within the Independent Geologists Report in APBL's May 2017 prospectus for listing of significant intercepts.</li> <li>Refer to Table 4.1, Figure 4.6 and Figure 4.7 within the Independent Geologists Report in APBL's May 2017 prospectus for examples of drill holes that show grade variability throughout the mineralised evaporite sequence.</li> </ul>
Other substantive exploration data	<ul style="list-style-type: none"> <li>Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.</li> </ul>	<ul style="list-style-type: none"> <li>Several historic studies have been completed by a variety of companies on the Fort Cady project.</li> <li>Duval corporation completed the 33 exploration drill holes and associated metallurgical and solution mining test work.</li> <li>Refer to bibliography for listing of references.</li> </ul>
Further work	<ul style="list-style-type: none"> <li>The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).</li> <li>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</li> </ul>	<ul style="list-style-type: none"> <li>APBL has prepared a two-year exploration programme to assess the prospects over its exploration areas, Fort Cady and Hector.</li> </ul>

## Section 3 Estimation and Reporting of Mineral Resources

(Criteria listed in Section 1 and where relevant in section 2, also apply to this section.)

Criteria	JORC Code explanation	Commentary
Database Integrity	<ul style="list-style-type: none"> <li>Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes.</li> <li>Data validation procedures used.</li> </ul>	<ul style="list-style-type: none"> <li>Drill hole data used to estimate the Fort Cady Indicated and Inferred Resource have been captured in a GEMS database. Drill hole information within the Access database was validated against relevant historic Duval Corporation datasets. These were transcribed externally with the transcripts being checked against original data sheets for veracity.</li> <li>Modern data was checked against sample ledgers and digital lab reports.</li> <li>It is assumed that due care was taken historically with the process of transcribing data from field notes into digital format for statutory annual reporting.</li> </ul>
Site visits	<ul style="list-style-type: none"> <li>Comment on any site visits undertaken by the Competent Person and the outcome of those visits.</li> <li>If no site visits have been undertaken indicate why this is the case.</li> </ul>	<ul style="list-style-type: none"> <li>Two site visits were undertaken by the CP</li> <li>The first was undertaken prior to the start of the current drilling program in late August 2017. Historic collar locations and planned drilling was verified on this visit.</li> <li>The second was undertaken in early November 2017, to verify current drilling, logging and sampling operations.</li> <li>An additional visit to the Assaying laboratory, the SRC in Saskatoon, Canada, was also undertaken in late October 2017 to inspect received samples.</li> </ul>
Geological Interpretation	<ul style="list-style-type: none"> <li>Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.</li> <li>Nature of the data used and of any assumptions made.</li> <li>The effect, if any, of alternative interpretations on Mineral Resource estimation.</li> <li>The use of geology in guiding and controlling Mineral Resource estimation.</li> <li>The factors affecting continuity both of grade and geology</li> </ul>	<ul style="list-style-type: none"> <li>While current drilling confirmed the historic geology broadly, it was found that all lacustrine-associated units have very gradual facies transitions, meaning that lithological distinctions can be arbitrary.</li> <li>Historic lithological data was examined in the light of drill cores in the current drill program. An assumption that the mineralisation occurs largely within the evaporitic sequence has been borne out by assay results.</li> <li>Alternative geological interpretations would have little to no effect on the Mineral Resource Estimate, as the latter was based on Indicator Kriging of mineralisation, thus defining the mineralized ore independent of geological interpretation</li> <li>While the geology only controls the broad zones wherein mineralisation occurs (the evaporitic-dominated facies of the lacustrine sediments), it does not assist in narrowly defining the mineralisation, which is quite diffuse within this zone, though with a marked high grade zone towards the upper end of the mineralisation sequence.</li> <li>The mineralisation, when viewed independently, is present in at least 4 distinct mineralised horizons, with good lateral continuity. These were named the Upper, Main, Intermediate and Lower Mineralised Horizons.</li> <li>Grade continuity is well defined throughout the deposit, especially in the high grade zone. Faulting clearly bounds the deposit on the west (Pisgah Fault), and this</li> </ul>



Criteria	JORC Code explanation	Commentary
Dimensions	<ul style="list-style-type: none"> <li>The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource.</li> </ul>	<p>boundary was implemented. Previously interpreted faults (such as Fault B) occur to the east of the defined mineralized zone, and are therefore not a factor in the interpretation.</p> <ul style="list-style-type: none"> <li>The modelled mineralised body continues for a 3.7 km along a northwest-southeast strike, with a width of approximately 1800m. It dips towards the southwest, where it reaches a maximum depth of 29 m above sea level, and reaches 311 m above sea level at its highest point in the north east. It averages around 90-130m in thickness.</li> </ul>
Estimates and modelling techniques	<ul style="list-style-type: none"> <li>The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software and parameters used.</li> <li>The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.</li> <li>The assumptions made regarding recovery of by-products.</li> <li>Estimation of deleterious elements or other non-grade variables of economic significance (eg sulphur for acid mine drainage characterisation).</li> <li>In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.</li> <li>Any assumptions behind modelling of selective mining units.</li> <li>Any assumptions about correlation between variables.</li> <li>Description of how the geological interpretation was used to control the resource estimates.</li> <li>Discussion of basis for using or not using grade cutting or capping</li> <li>The process of validation, the checking process used, the comparison of model data to drillhole data, and the use of reconciliation data if available.</li> </ul>	<p>Detailed examination of the assay results indicated that there are distinct mineralised horizons. The deposit was there divided based on these patterns of mineralisation, into 4 mineralised horizons, and 2 non- to weakly mineralised interbeds.</p> <p>Based on these defined horizons, a Vulcan grid model was constructed across the deposit area, with 25m x 25m grid cells. Lithological grids were built, including horizon thicknesses, roofs and floors. Interpolation for the lithological grids were by Inverse Distance Squared. As per the previous report, the deposit was limited by an ore body boundary, using a distance of 150m from the last intersection of a mineralised on the outside of the orebody. The previous ore boundary was extended by new drilling, especially in the northern parts of the deposit. The grids were masked outside the ore boundary.</p> <p>Based on seam composites, variograms were constructed for B<sub>2</sub>O<sub>3</sub> (no lithium oxide variograms were possible). Ranges for the omnidirectional, horizontal variograms ranged between 400 m and 530 m. A Resource Classification was therefore defined as 0 – 200m Measured, 200-400m Indicated, and 400 – 800m Inferred.</p> <ul style="list-style-type: none"> <li>A Historical Resources is available, but there is no detail on the estimation methodology, or the limits thereof, and how it was implemented. It is therefore no better than a rough guideline. This Resource was 115 MMT @ 7.4% B<sub>2</sub>O<sub>3</sub> (unclassified). Comparatively, the tonnage of the Indicated and Inferred as described here well exceed that amount, with a lower average grade. With the difficulty in ascertaining how the deposit was bounded (thus increasing grade and decreasing tonnage), this difference is not seen as critical.</li> <li>The only by-product reported here is lithium. The exact nature of the lithium mineralisation is unclear. It is thought to be associated with the interbedded clays, and a marked negative grade correlation with Boron does exist. In addition, historical assays have intermittent lithium analyses, and by convention non-assayed intervals are assigned a zero grade. Current efforts are under way in determining the leaching potential of lithium from the clays. It should be noted that due to these factors, and to the fact that lithium is reported as a by-product, and thus within the higher grade boron zones, the reported lithium grade is significantly lower than some of the higher grade intersections seen.</li> </ul>

Criteria	JORC Code explanation	Commentary
		<ul style="list-style-type: none"> <li>No deleterious elements have been identified thus far</li> <li>As mineralisation is diffuse, with very variable assays even in the high-grade zone block sizes cannot be confined by lithological constraints. Sampling size is very variable, with the average sample being just under 1 m (inclusive of historic assays), ranging to well in excess of 5m in some historical holes. Due to these variable factors, seam composites are seen as a reasonable, unbiased compromise for the vertical dimension of the blocks. The 250m horizontal dimensions were based on getting a reasonable number of grid cells between (other than the production and twin holes, holes are more than 100m apart on average.</li> <li>No assumptions were made as to variable correlations, although a negative correlation between lithium and boron was noted.</li> <li>Geological interpretation based on mineralisation, rather than lithology, played a role in defining the horizons, and therefore the Resource.</li> <li>Grade capping was not applied</li> <li>An inverse distance model was run to see if any kriging bias was found. The model was visually checked, and histograms were compared of all input composites and all interpolated blocks – with excellent correlation, for both B<sub>2</sub>O<sub>3</sub> and Li.</li> </ul>
Moisture	<ul style="list-style-type: none"> <li>Whether the tonnages are estimated on a dry basis or with natural moisture, and the determination of the moisture contents.</li> </ul>	<ul style="list-style-type: none"> <li>Tonnages and grades are estimated on a wet-in situ basis</li> </ul>
Cut-off parameters	<ul style="list-style-type: none"> <li>The basis of the adopted cut-off grade(s) or quality parameters applied.</li> </ul>	<ul style="list-style-type: none"> <li>The B<sub>2</sub>O<sub>3</sub> cut-off of 5% is based on historic reported cut-offs for this deposit.</li> </ul>
Mining factors or assumptions	<ul style="list-style-type: none"> <li>Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential mining methods, but the assumptions made regarding mining methods and parameters when estimating Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the mining assumptions made.</li> </ul>	<ul style="list-style-type: none"> <li>It is assumed that the deposit will be mined as solution mine/in-situ leach. The appropriate cut-offs were applied for this method. Underground mining is not suitable due to ground conditions, as historically noted.</li> </ul>
Metallurgical factors or assumptions	<ul style="list-style-type: none"> <li>The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential metallurgical methods, but the assumptions regarding metallurgical treatment processes and parameters made when reporting Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made.</li> </ul>	<ul style="list-style-type: none"> <li>Initial metallurgical test works complete on representative sample core from colemanite mineralisation containing 6.2% B<sub>2</sub>O<sub>3</sub> (11.0% H<sub>3</sub>BO<sub>3</sub>*) and 505 ppm lithium, were completed with a total of five hydrochloric acid (HCl) leach tests were performed. Boron recoveries were near 100%, while just under 50% lithium was recovered. Based on these early results, and pending further testing, the solution mining / in-situ leaching appears to successful. Further metallurgical tests are proceeding.</li> </ul>

Criteria	JORC Code explanation	Commentary
Environmental factors or assumptions	<ul style="list-style-type: none"> <li>Assumptions made regarding possible waste and process residue disposal options</li> <li>It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation. While at this stage the determination of potential environmental impacts, particularly for a greenfields project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made</li> </ul>	<ul style="list-style-type: none"> <li>Whereas solution mining is a minimum disturbance form of mining, and previous activities at the site using similar processes have not resulted in any environmental degradation, APBL will undertake a full EIS at the appropriate time in order to identify and mitigate any potential environmental concerns. The only specific requirement currently from the State of California is the fencing of all worksites with tortoise fencing, to protect the endangered species. In a solution mining project, this requirement can be comfortably accommodated.</li> </ul>
Bulk density	<ul style="list-style-type: none"> <li>Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size and representativeness of the samples.</li> <li>The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vugs, porosity, etc), moisture and differences between rock and alteration zones within the deposit.</li> <li>Discuss assumptions for bulk density estimates used in the evaluation process of the different materials</li> </ul>	<ul style="list-style-type: none"> <li>A total of 388 density measurements, using the water immersion technique, were taken from drill core at the Fort Cady project, during the current drill program.</li> <li>It is assumed that there are minimal void spaces within the core</li> <li>Since the ore is finally laminated, it is assumed that the large quantity of regular density samples will account for all components.</li> </ul>
	<ul style="list-style-type: none"> <li>The basis for the classification of the Mineral Resources into varying confidence categories.</li> <li>Whether appropriate account has been taken of all relevant factors (ie relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data).</li> <li>Whether the result appropriately reflects the Competent Person's view of the deposit</li> </ul>	<ul style="list-style-type: none"> <li>Measured, Indicated and Inferred Category Resources were applied in compliance with the 2012 Edition of the JORC code. These were applied both on the variogram ranges of the primary economic constituent (B2O3), and the reliability of the data. Indicated was defined as the Variogram range, but only utilizing the data from the current drill program and Inferred as twice the variogram range, and utilised the current and historic data.</li> <li>Variography indicated that the current data spacing is more than sufficient. Twin holes indicated reasonable duplication of historic results. The diffuse nature of the mineralisation within the deposit was adequately taken into account by the utilization of the Indicator Kriging approach.</li> <li>The Mineral Resource estimate appropriately reflects the view of the Competent Person.</li> </ul>
Audits / reviews	<ul style="list-style-type: none"> <li>The results of any audits or reviews of Mineral Resource estimates.</li> </ul>	<ul style="list-style-type: none"> <li>Reviews have been completed by the CP and APBL which verified inputs, assumptions, methodology and results.</li> </ul>
Discussion of relative accuracy/ confidence	<ul style="list-style-type: none"> <li>Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could affect the relative accuracy and confidence of the estimate.</li> <li>The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used.</li> <li>These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.</li> </ul>	<ul style="list-style-type: none"> <li>The deposit geometry and continuity has been adequately interpreted to reflect the applied level of Inferred and Indicated Mineral Resource. The data quality is good and the drill holes have detailed geological logs. A recognized laboratory was used for all analyses.</li> <li>The Mineral Resource statement relates to global estimates of tonnes and grade.</li> <li>No check estimates were available.</li> <li>Historic production data is limited, but does not contradict the modern exploration data.</li> </ul>

## Appendix 5B

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

Introduced 01/07/96 Origin Appendix 8 Amended 01/07/97, 01/07/98, 30/09/01, 01/06/10, 17/12/10, 01/05/13, 01/09/16

### Name of entity

AMERICAN PACIFIC BORATE & LITHIUM LTD

### ABN

68 615 606 114

### Quarter ended ("current quarter")

31 December 2018

Consolidated statement of cash flows	Current quarter \$A'000	Year to date (6 months) \$A'000
<b>1. Cash flows from operating activities</b>		
1.1 Receipts from customers	-	-
1.2 Payments for		
(a) exploration & evaluation	(1,545)	(2,884)
(b) development	-	-
(c) production	-	-
(d) staff costs	(145)	(238)
(e) administration and corporate costs	(249)	(1,250)
1.3 Dividends received (see note 3)	-	-
1.4 Interest received	3	6
1.5 Interest and other costs of finance paid	-	-
1.6 Income taxes paid	-	-
1.7 Research and development refunds	-	-
1.8 Other	-	-
<b>1.9 Net cash from / (used in) operating activities</b>	<b>(1,936)</b>	<b>(4,366)</b>

<b>2. Cash flows from investing activities</b>		
2.1 Payments to acquire:		
(a) property, plant and equipment	-	-
(b) tenements (see item 10)	-	-
(c) investments	-	-
(d) other non-current assets	-	-

<b>Consolidated statement of cash flows</b>		<b>Current quarter \$A'000</b>	<b>Year to date (6 months) \$A'000</b>
2.2	Proceeds from the disposal of:		
	(a) property, plant and equipment	-	-
	(b) tenements (see item 10)	-	-
	(c) investments	-	-
	(d) other non-current assets	-	-
2.3	Cash flows from loans to other entities	-	-
2.4	Dividends received (see note 3)	-	-
2.5	Other –	-	-
<b>2.6</b>	<b>Net cash from / (used in) investing activities</b>	<b>-</b>	<b>-</b>

<b>3.</b>	<b>Cash flows from financing activities</b>		
3.1	Proceeds from issues of shares	-	4,000
3.2	Proceeds from issue of convertible notes	-	-
3.3	Proceeds from exercise of share options	-	-
3.4	Transaction costs related to issues of shares, convertible notes or options	-	(286)
3.5	Proceeds from borrowings	-	-
3.6	Repayment of borrowings	-	-
3.7	Transaction costs related to loans and borrowings	-	-
3.8	Dividends paid	-	-
3.9	Other (provide details if material):		
	- Proceeds from Placement Shares to be issued	-	200
<b>3.10</b>	<b>Net cash from / (used in) financing activities</b>	<b>-</b>	<b>3,914</b>

<b>4.</b>	<b>Net increase / (decrease) in cash and cash equivalents for the period</b>		
4.1	Cash and cash equivalents at beginning of period	4,384	2,882
4.2	Net cash from / (used in) operating activities (item 1.9 above)	(1,936)	(4,366)
4.3	Net cash from / (used in) investing activities (item 2.6 above)	-	-
4.4	Net cash from / (used in) financing activities (item 3.10 above)	-	3,914

<b>Consolidated statement of cash flows</b>		<b>Current quarter \$A'000</b>	<b>Year to date (6 months) \$A'000</b>
4.5	Effect of movement in exchange rates on cash held	1	19
<b>4.6</b>	<b>Cash and cash equivalents at end of period</b>	<b>2,449</b>	<b>2,449</b>

<b>5.</b>	<b>Reconciliation of cash and cash equivalents</b> at the end of the quarter (as shown in the consolidated statement of cash flows) to the related items in the accounts	<b>Current quarter \$A'000</b>	<b>Previous quarter \$A'000</b>
5.1	Bank balances	2,449	4,384
5.2	Call deposits	-	-
5.3	Bank overdrafts	-	-
5.4	Other (provide details)	-	-
<b>5.5</b>	<b>Cash and cash equivalents at end of quarter (should equal item 4.6 above)</b>	<b>2,449</b>	<b>4,384</b>

<b>6.</b>	<b>Payments to directors of the entity and their associates</b>	<b>Current quarter \$A'000</b>
6.1	Aggregate amount of payments to these parties included in item 1.2	134
6.2	Aggregate amount of cash flow from loans to these parties included in item 2.3	-
6.3	Include below any explanation necessary to understand the transactions included in items 6.1 and 6.2	

Payment of Directors Fees and Remuneration - \$134k

<b>7.</b>	<b>Payments to related entities of the entity and their associates</b>	<b>Current quarter \$A'000</b>
7.1	Aggregate amount of payments to these parties included in item 1.2	-
7.2	Aggregate amount of cash flow from loans to these parties included in item 2.3	-
7.3	Include below any explanation necessary to understand the transactions included in items 7.1 and 7.2	

N/A

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

<b>8. Financing facilities available</b> <i>Add notes as necessary for an understanding of the position</i>	<b>Total facility amount at quarter end \$A'000</b>	<b>Amount drawn at quarter end \$A'000</b>
8.1 Loan facilities	-	-
8.2 Credit standby arrangements	-	-
8.3 Other (please specify)	-	-
8.4 Include below a description of each facility above, including the lender, interest rate and whether it is secured or unsecured. If any additional facilities have been entered into or are proposed to be entered into after quarter end, include details of those facilities as well.		

N/A

<b>9. Estimated cash outflows for next quarter</b>	<b>\$A'000</b>
9.1 Exploration and evaluation	655
9.2 Development	-
9.3 Production	-
9.4 Staff costs	205
9.5 Administration and corporate costs	353
9.6 Other (provide details if material)	-
<b>9.7 Total estimated cash outflows</b>	<b>1,213</b>

<b>10. Changes in tenements (items 2.1(b) and 2.2(b) above)</b>	<b>Tenement reference and location</b>	<b>Nature of interest</b>	<b>Interest at beginning of quarter</b>	<b>Interest at end of quarter %</b>
10.1 Interests in mining tenements and petroleum tenements lapsed, relinquished or reduced	N/A			
10.2 Interests in mining tenements and petroleum tenements acquired or increased	N/A			

### Compliance statement

- 1 This statement has been prepared in accordance with accounting standards and policies which comply with Listing Rule 19.11A.
- 2 This statement gives a true and fair view of the matters disclosed.



Sign here:

(Company secretary)

Date: 29 January 2019

Print name: Aaron Bertolatti

### Notes

1. The quarterly report provides a basis for informing the market how the entity's activities have been financed for the past quarter and the effect on its cash position. An entity that wishes to disclose additional information is encouraged to do so, in a note or notes included in or attached to this report.
2. If this quarterly report has been prepared in accordance with Australian Accounting Standards, the definitions in, and provisions of, AASB 6: Exploration for and Evaluation of Mineral Resources and AASB 107: Statement of Cash Flows apply to this report. If this quarterly report has been prepared in accordance with other accounting standards agreed by ASX pursuant to Listing Rule 19.11A, the corresponding equivalent standards apply to this report.
3. Dividends received may be classified either as cash flows from operating activities or cash flows from investing activities, depending on the accounting policy of the entity.