



AmericanPacific

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BORATE & LITHIUM  
LIMITED  
ACN 615 606 114

## Corporate Presentation

# Compelling Borate Project with Significant Lithium Potential

August 2017

# Important Information



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Various statements in this presentation constitute statements relating to intentions, future acts and events. Such statements are generally classified as “forward looking statements” and involve known and unknown risks, uncertainties and other important factors that could cause those future acts, events and circumstances to differ materially from what is presented or implicitly portrayed herein. Words such as “anticipates”, “expects”, “intends”, “plans”, “believes”, “seeks”, “estimates” and similar expressions are intended to identify forward-looking statements. APBL caution shareholders and prospective shareholders not to place undue reliance on these forward-looking

statements, which reflect the view of APBL only as of the date of this presentation. The forward-looking statements made in this presentation relate only to events as of the date on which the statements are made.

## **COMPETENT PERSON**

The information in this report that relates to exploration results and historical mineral estimates is based on, and fairly represents, information and supporting documentation compiled by Lachlan Rutherford (PhD, MBA) the Company’s Head of Strategy & Corporate Development. Dr Rutherford is a competent person who is a member of the Australian Institute of Mining & Metallurgy, and a full time employee of the Company. Dr Rutherford has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a competent person as defined in the 2012 edition of the JORC Code. Dr Rutherford consents to the inclusion of the matters based in this Prospectus on his information noted in the form and context in which it appears.

## **HISTORICAL MINERAL ESTIMATES**

The historical mineral estimates in this report are not reported in accordance with the guidelines of the JORC Code (2012). A competent person has not completed sufficient work to classify these estimates as Mineral Resources or Ore Reserves in accordance with the guidelines of the JORC Code (2012). It is uncertain that following evaluation and/or further exploration work that the estimates will be able to be reported as Mineral Resources or Ore Reserves in accordance with JORC Code (2012). The full source details of the above estimates are contained in the Bibliography

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# 1. APBL Overview



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- **Large Borate Deposit with Excellent Potential to Define a Significant Lithium Resource**
  - Highly rare and large borate deposit with a historical non-JORC mineral estimate of 115Mt at 7.4% B<sub>2</sub>O<sub>3</sub> or 13.2% H<sub>3</sub>BO<sub>3</sub> (boric acid) equivalent (5% B<sub>2</sub>O<sub>3</sub> cut-off) including 69Mt at 9% B<sub>2</sub>O<sub>3</sub> and 16% H<sub>3</sub>BO<sub>3</sub> (7% B<sub>2</sub>O<sub>3</sub> cut-off)
  - Colemanite mineralisation with commercially proven extraction and processing route at relatively shallow depths to surface of around 400m
  - Lithium confirmed in borate formation at over 300ppm and in ambient brines within formation at 91ppm
  - Minimal magnesium content likely to result in uncomplicated and low cost processing for lithium by-product stream
  - Substantial lithium exploration target expected to deliver significant upside to the overall project financials
- **Previously Permitted for Commercial-Scale Operations with Pilot Plant Permits in Place**
  - All four permits required to operate commercial-scale operations were in place until 2009
  - Two of the four permits remain active – Plan of Operations and combined EIS/EIR and Mining Conditional Use Permit and Reclamation Plan
  - Air and Water Quality permits lapsed but independent consultants expect both to be reinstated within a twelve month timeframe
  - Pilot plant fully permitted
- **Pilot Plant Operations Already Shown to Produce Boric Acid**
  - 33 drill holes completed and 17 production wells tested
  - Approx. US\$50m spent on project to date on drilling, feasibility studies, engineering and construction
  - Solution mining and pilot plant operations from 1987 – 1988 produced boric acid and from 1996 – 2001 a synthetic colemanite was produced
- **Attractive Industry Fundamentals**
  - Borate market is a oligopoly with expected five year growth rate at over 5% CAGR
  - Borates currently used in over 300 applications with many uses across borosilicate glass, fibreglass, frits/ceramics, agriculture and detergents
  - Lithium market expected to grow at over 10% CAGR for foreseeable future
  - Main driver of additional demand is lithium-ion batteries
- **Proven Management Team to Build Real Shareholder Value**
  - Managing Director based in-country with extensive development and operational experience including taking projects through feasibility studies, detailed engineering and managing large-scale mining operations
  - Deep experience in operations and financial markets across a balanced board and senior management team

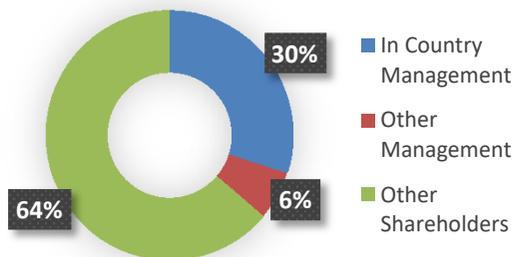
# 2. Corporate Summary

Well funded corporate structure with experienced and balanced board

## Corporate Information

ASX Ticker	ABR
Listing Share Price	A\$0.20
Shares on Issue	169.6m
Tradeable Securities	83.6m
20c Options	7.0m
30c Options	7.0m
Fully Diluted Shares	183.6m
Undiluted Market Cap.	A\$33.9m
<b>Diluted Market Cap.</b>	<b>A\$36.7m</b>
<b>Cash at Bank</b>	<b>A\$14.3m</b>
<b>Major shareholder:</b> Atlas Precious Metals	29%

## Fully Diluted Shares

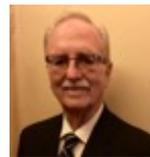


## Board



### Michael X. Schlumpberger, Managing Director and CEO, BEng (Mining), MBA

Mike is a qualified mining engineer with over 30 years' experience in industrial minerals. His background includes management, operations, and maintenance in all aspects of mining, processing, reclamation, and permitting. He has held senior roles with Potash Corporation of Saskatchewan, Passport Potash, and Highfield Resources, and has worked in the United States, Canada, and Europe



### Harold (Roy) Shipes, Non Executive Chairman, BSc

Roy has over 50 years' commercial experience in metals & mining – primarily engineering and project development around the world including the USA, Canada, Peru, Australia, PNG, Venezuela and Mexico. He served as CEO and General Manager of OK Tedi Mining Ltd, GM Operations for the Southern Peru Copper Corp and previously for Phelps Dodge Corp. Roy was founder and President of a number of Nth American mining companies including Atlas Precious Metals. He is currently the CEO and President of Altair Resources



### Anthony Hall, Executive Director, LLB(Hons), BBus, AGIA

Anthony is a qualified lawyer with 20 years' commercial experience in venture capital, risk management, strategy and business development. He was Managing Director of ASX listed Highfield Resources Ltd from 2011 to 2016. During his tenure the company's market cap grew from \$10m to \$500m & over \$140m was raised to progress potash projects in Spain



### Stephen Hunt, Non Executive Director, BBus, MAICD

Stephen has 25 years' experience in the marketing mineral products worldwide. His career includes 15 years at BHP Billiton where he spent 5 years in the London office marketing minerals to a global customer base. Stephen has built his own minerals trading company, which has a strong Chinese focus. He brings 15 years of cumulative board experience with four ASX listed companies, two of which transitioned from development to production



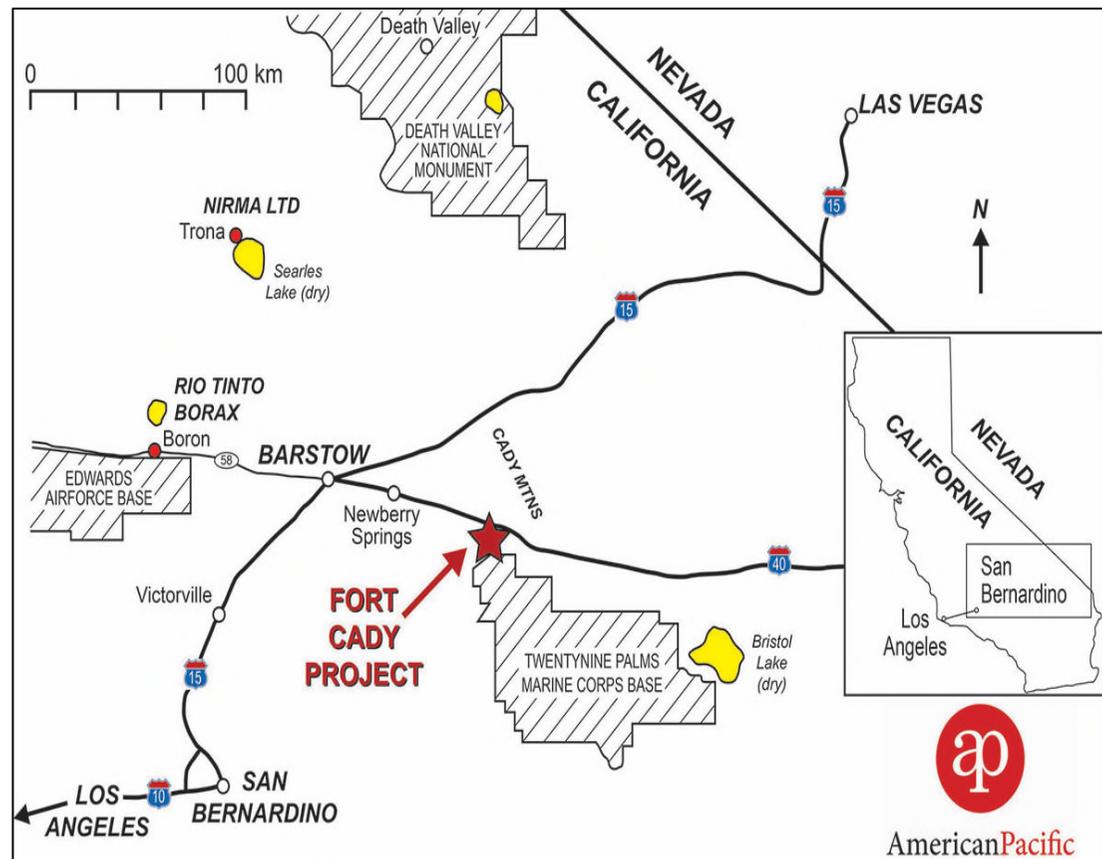
### John McKinney, Non Executive Director, BScBA

John has held senior management positions in the mining industry for 25 years in corporate, management and business development roles. John has co-founded a number of mining companies. His responsibilities have included overseeing operations in the U.S., Mexico and Bolivia.

# 3. Fort Cady Boron and Lithium Project

Large borate deposit with potential to define significant lithium resource

- Large borate deposit<sup>1</sup> with significant untested lithium potential located in Southern California
- Largest known contained borate deposit<sup>1</sup> not owned by the two major borate producers – Rio and Eti
- Colemanite mineralisation with almost zero arsenic, meaning end product will be a market premium – technically proven process design
- Approx. US\$50m spent on project with solution mining and pilot plant operations producing boric acid (1987-1988) and synthetic colemanite (1996-2001)
- Previously fully permitted and currently permitted for pilot plant operations



Project location in California, USA

<sup>1</sup> See disclaimer on slide 2 in relation to historical mineral estimates

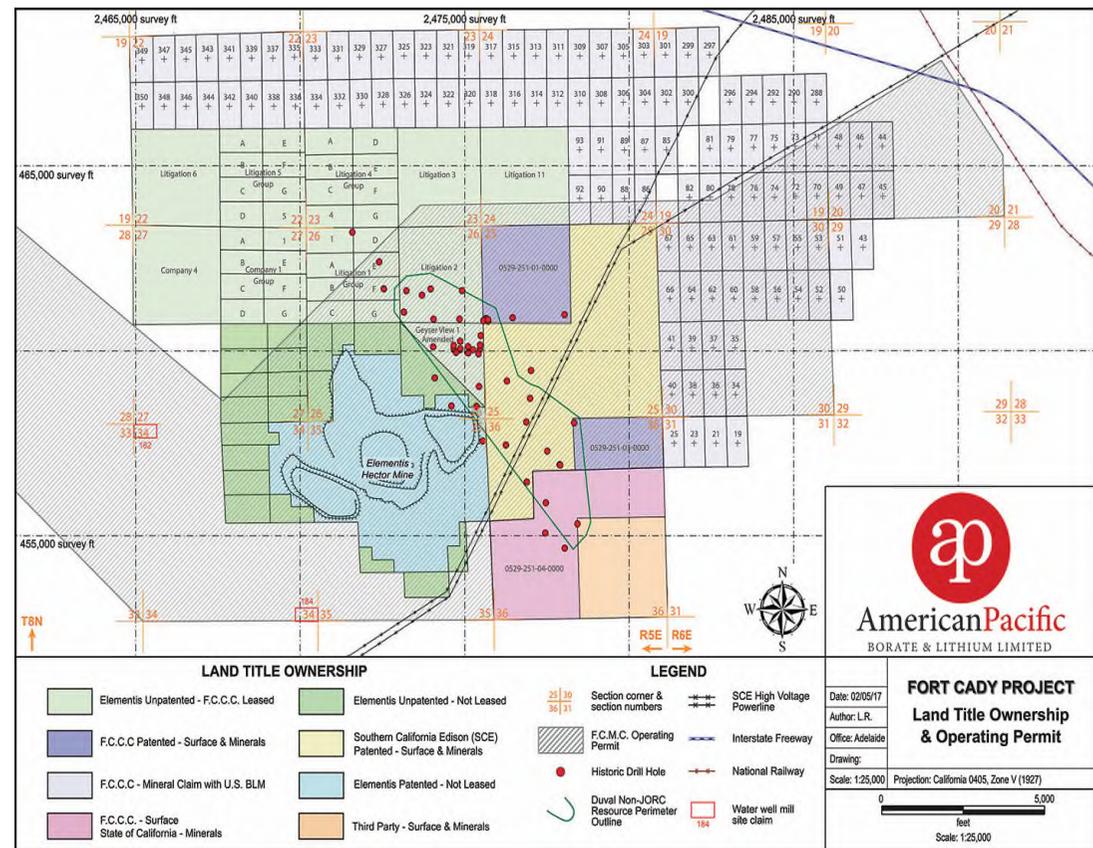
# 3. Fort Cady Boron and Lithium Project



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Fully permitted until 2009 - two key permits remain active

- Drilled mineralised area covers ~3km<sup>2</sup> of which 55% is currently controlled by APBL. Access to remaining area under negotiation
- APBL's U.S. subsidiary holds exclusive rights to mine borate in the approved operating permit area
- All four permits required to operate commercial-scale operations were in effect until 2009
- Two key land use permits for commercial-scale operations remain active – Plan of Operations and combined EIS/EIR; and Mining Conditional Use Permit & Reclamation Plan
- Pilot plant permit remains active
- Air and Water Quality permits expected to be reinstated within a twelve month period



Land Tenure Map as of May 2017



# 3. Fort Cady Boron and Lithium Project

Large historical borate mineral estimate with substantial lithium potential

- 33 diamond resource holes were drilled by Duval Corp. (1979 - 1981) at 250m spacing
- Three historic (non-JORC 2012 compliant) borate mineral estimates calculated for the Project<sup>1</sup>. Range from 80Mt @ 6.7% B<sub>2</sub>O<sub>3</sub> to 115Mt @ 7.4% B<sub>2</sub>O<sub>3</sub> [5% B<sub>2</sub>O<sub>3</sub> cut off] or 13.1% H<sub>3</sub>BO<sub>3</sub> (boric acid) equivalent<sup>2</sup> grade
- Historic (non-JORC 2012 compliant) lithium mineral estimate in colemanite horizon estimated at 80Mt @ 313 ppm<sup>1</sup>
- Outstanding additional lithium potential from ambient brines within the borate-bearing formation and lithium-enriched brines in favourable structures
- Mineralisation lies around 400m beneath surface and the deposit remains open to the northwest and southeast
- Colemanite horizon ranges from 30m to 75m thick in most areas

## Historic (non-JORC 2012 compliant) Mineral Estimates

Company	B <sub>2</sub> O <sub>3</sub> Cut-off (%)	Tonnes (Mt) <sup>2</sup>	B <sub>2</sub> O <sub>3</sub> Grade (%)	Li (ppm)
Duval (1982)	3	192	5.7	NA
	5	115	7.4	NA
	7	69	9.0	NA
Geosolutions (1990)	3	266	5.3	NA
	5	115	7.1	NA
	7	43	9.4	NA
PT GMT Indonesia (2015)*	3	183	5.1	297
	5	80	6.7	313
	7	30	7.9	328

Source – APBL Independent Geologists Report in APBL May 2017 prospectus  
\* PT GMT historic estimate did not model the entirety of mineralised region



Massive colemanite



Brecciated colemanite & celestite

<sup>1</sup> Refer to Independent Geologists Report in APBL May 2017 prospectus

<sup>2</sup> H<sub>3</sub>BO<sub>3</sub> equivalent grade = 1.78 x B<sub>2</sub>O<sub>3</sub>

# 3. Fort Cady Boron and Lithium Project

~US\$50m spent on project with substantial operations test works completed

## Building on substantial historical information and test works

- |       |   |
|-------|---|
| 1980s | <ul style="list-style-type: none"><li>• 33 drill holes completed</li><li>• 17 injection wells completed</li><li>• Met testing, well field testing, pilot plant and boric acid prod.</li><li>• feasibility studies started</li></ul> |
| 1990s | <ul style="list-style-type: none"><li>• Permitting process completed</li><li>• Feasibility studies completed</li><li>• Pilot plant operations producing high grade colemanite concentrate sold under CadyCal 100 Brand</li></ul>    |
| 2000s | <ul style="list-style-type: none"><li>• Operations ceased due to cash flow problems</li></ul>   |
| 2010  | <ul style="list-style-type: none"><li>• Assets acquired by IPO vendors</li></ul>  |
| 2016  | <ul style="list-style-type: none"><li>• Funds raised to facilitate IPO process</li></ul>  |
| 2017  | <ul style="list-style-type: none"><li>• IPO to raise funds to progress work required to move into commercial scale production</li></ul>   |



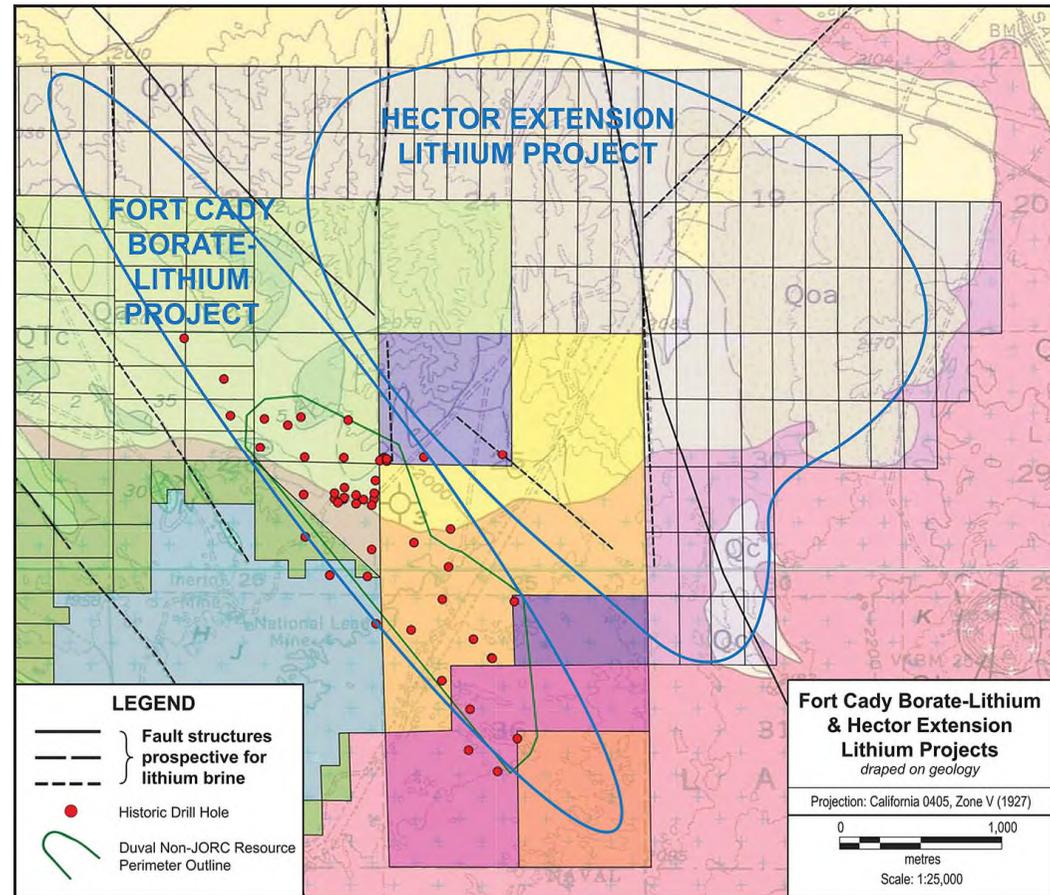
Photos of pilot plant operations



# 3. Fort Cady Boron and Lithium Project

Lithium levels relative to low magnesium levels are very positive

- Lithium is known to occur in colemanite horizon and ambient brines
- Historic assay results suggest over 300ppm in colemanite-bearing formation and 91ppm in ambient brines (Mg content very low at only 11ppm)
- Minimal magnesium content likely to result in uncomplicated and low cost processing
- Geological hypothesis suggests lithium when deposited is likely to have flowed to the centre of the closed evaporitic basin along favourable structures
- The recently acquired and 100% owned APBL Hector Extension Lithium Project is designed to test this hypothesis
- Lithium by-product circuit has the potential to produce low cost, high value lithium carbonate (LCE) for USA market

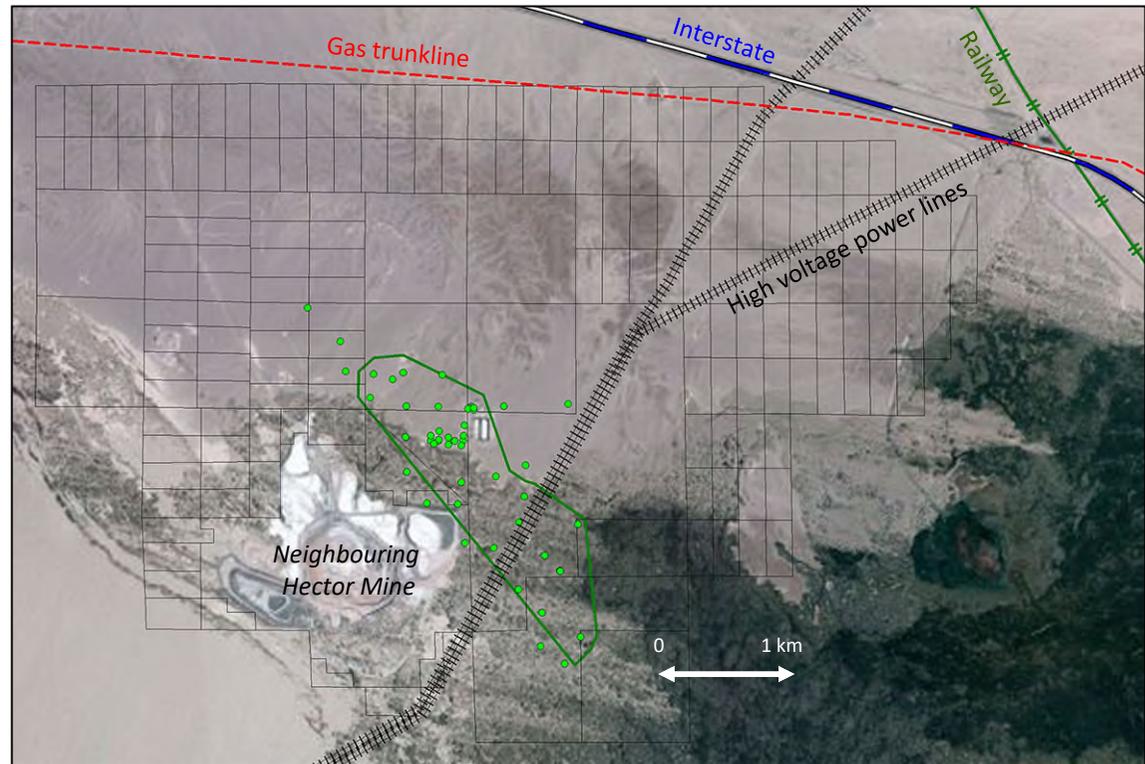


Land Tenure Map and Project Targets as at May 2017

### 3. Fort Cady Boron and Lithium Project

Key project infrastructure already in place

- Technically proven process route with access to first class infrastructure
- Existing infrastructure includes
  - ✓ Interstate highway
  - ✓ Rail line within 5 km
  - ✓ Gas and grid electricity
  - ✓ Port access
  - ✓ Existing pilot plant
  - ✓ Labour
- Colemanite mineralisation
- Boric acid produced from solution mining test wells and pilot plant
- Substantial lithium by-product potential

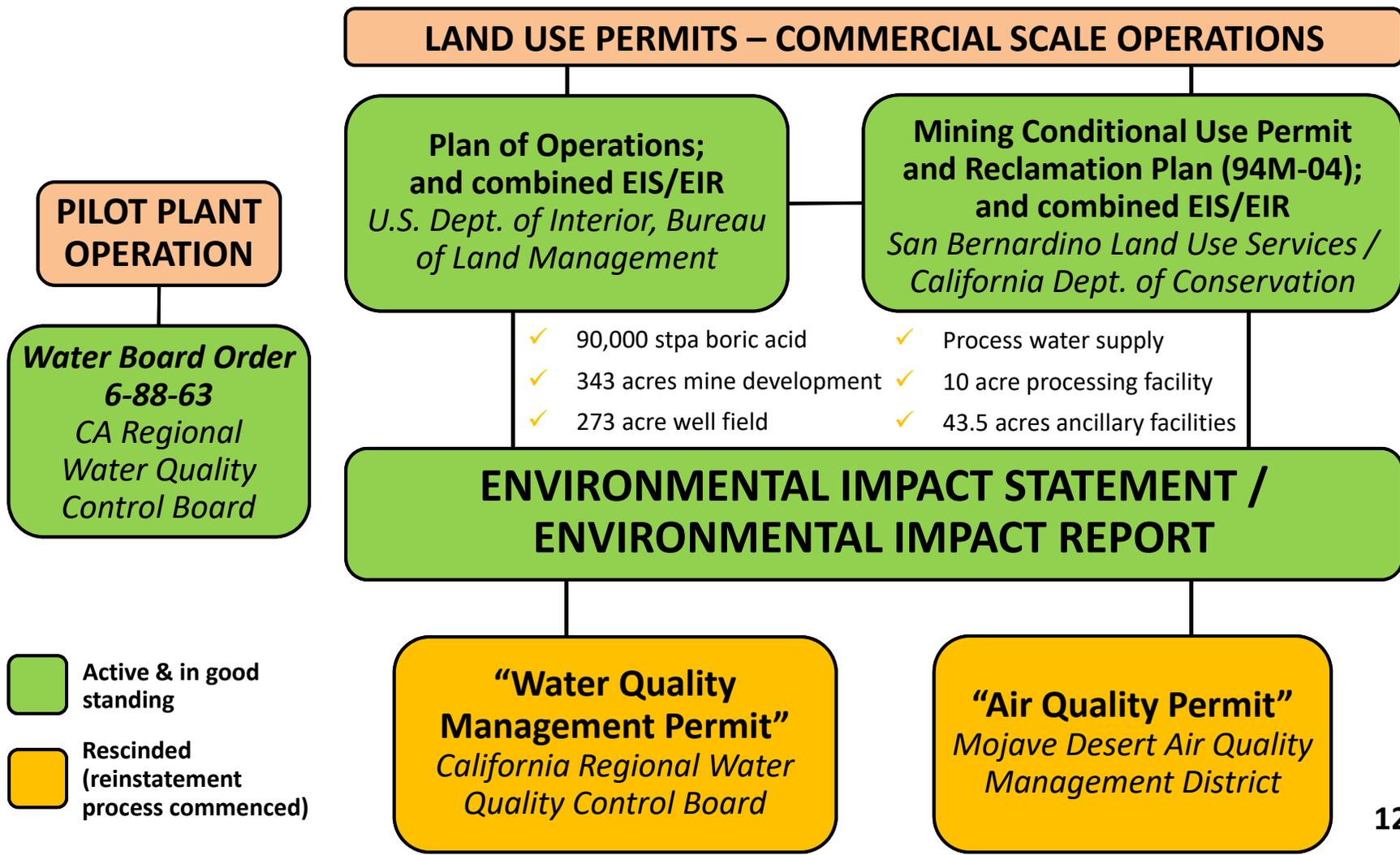


Existing infrastructure adjacent to Fort Cady Project



# 3. Fort Cady Boron and Lithium Project

Key commercial-scale land use permits & EIS/EIR active; pilot plant permit active

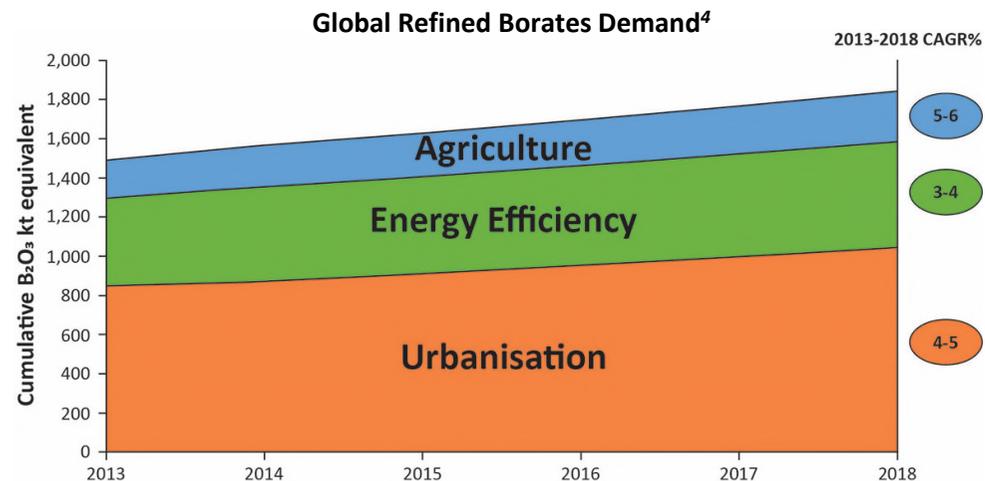
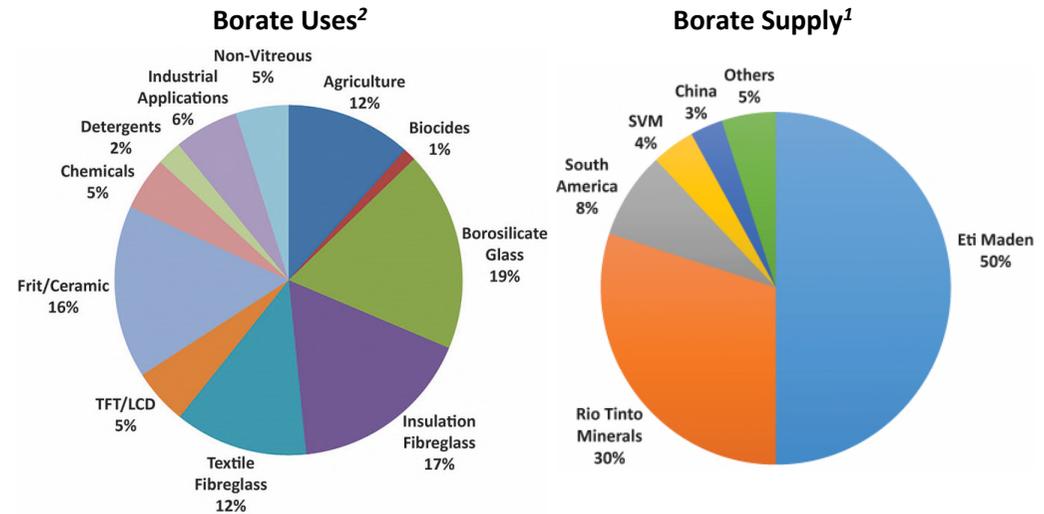




# 4. Borates Market

Oligopoly market forecasted to grow at 5% pa over coming five years

- Borates are used in more than 300 applications with 75% going into borosilicate glass, fibreglass, frits/ceramics, agriculture & detergents
- Market controlled by two majors who account for around 75% of global production – Rio Tinto Minerals and Eti Maden (Turkey)<sup>1</sup>
- Market size around 2.2Mtpa<sup>3</sup> B<sub>2</sub>O<sub>3</sub> or 4Mt boric acid equivalent; expected 5 year CAGR is over 5% pa<sup>2,3</sup>
- Demand primarily driven by urbanisation (IFG, ceramics), use of refrigeration (IFG), higher disposable incomes (BSG, TFT/LCD), clean technologies and securing global food supply (agriculture)
- Increased demand predominantly driven by Asia Pacific region<sup>1</sup>

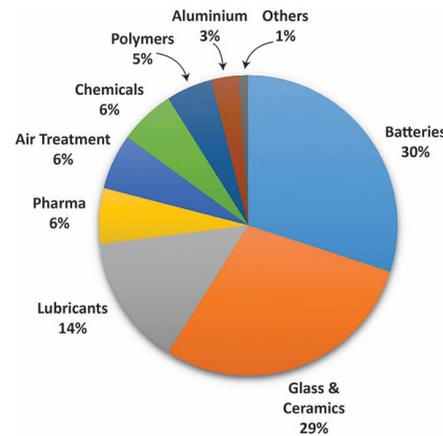


<sup>1</sup> Industrial Minerals, Roll up Borates (2017); <sup>2</sup> Rio Tinto, Global outlook for borates (2015); <sup>3</sup> Stromcrow, Industry Report // Borates (2015); <sup>3</sup> Rio Tinto, Global Outlook for Borates (2014)

# 5. Lithium Market

Fast growing market driven by demand for lithium-ion batteries

- Existing market dominated by four major deposits in South America and USA.
- New sources of lithium required and likely to open up market to new smaller participants to fulfil increasing demand profile
- Market size around 250k tonnes of lithium carbonate (LCE) equivalent
- Expected 5 year CAGR is over 10% pa
- Main market driver is lithium-ion batteries for climate change and air quality purposes



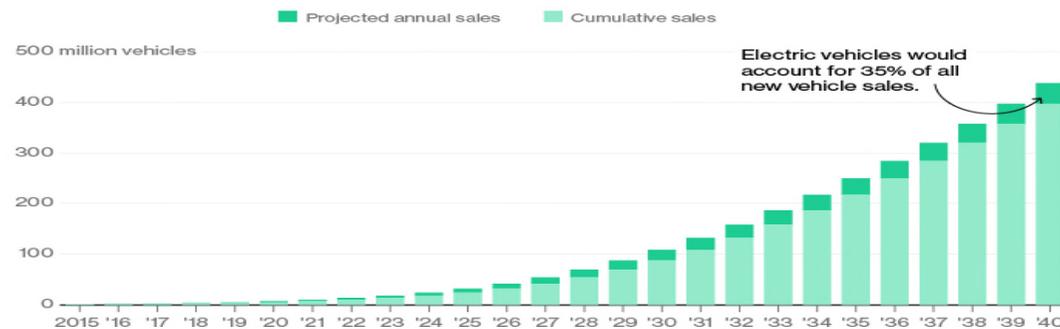
Source – Stormcrow Research



Electric vehicle – aarononauts.com

## The Rise of Electric Cars

By 2022 electric vehicles will cost the same as their internal-combustion counterparts. That's the point of liftoff for sales.



Sources: Data compiled by Bloomberg New Energy Finance, Marklines

# 6. Execution



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Disciplined execution to deliver shareholder value

## Milestones/Catalysts

Construction ready  
Air & Water Quality  
permits reinstated

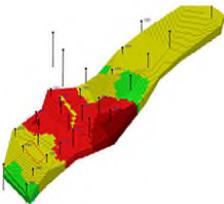


Complete pilot plant &  
metallurgical studies  
Complete Definitive  
Feasibility Study (DFS)



- Finalise EPC management
- Engage construction partners

Maiden JORC Resource  
Scoping Study



- Global marketing in Nth Am, UK/EU, Asia
- Commence discussions with sales and marketing partners (boric acid & LCE)

Drilling  
programme



- Setup office in Apple Valley, CA
- Key site appointments
- Commence stakeholder engagement

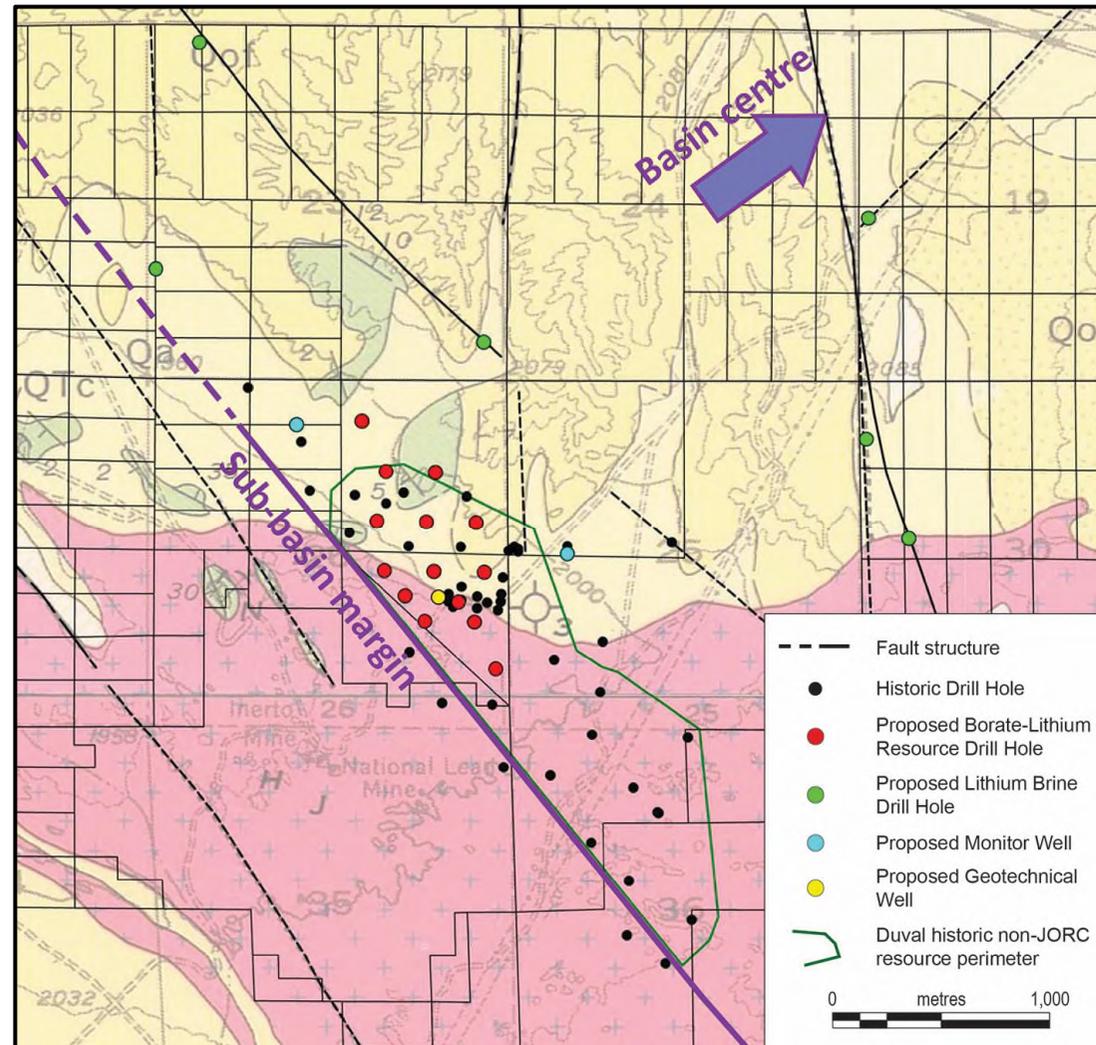
Strategy



# 7. Execution

## Fast-tracking maiden JORC borate-lithium resource and Scoping Study

- **Borate-lithium drill holes**
  - Maiden JORC (2012) mineral resource estimate
  - Metallurgical samples
  - Production test holes for pilot plant studies
- **Lithium drill holes**
  - Structurally-controlled, lithium brines test holes
  - Assess flow rates for use in solution mining and processing water
- **Geotechnical drill hole**
  - Large diameter cored hole for underground mining studies
- **Water monitoring wells**
  - Environmental ground water monitoring
  - Baseline water studies



## 8. Summary

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- Large high quality borate deposit
- Colemanite mineralisation with commercially proven extraction and processing route
- Substantial complementary lithium opportunity
- Two high growth commodities with many modern clean technology and food security applications
- Circa US\$50m spent on project
- Previously fully permitted for commercial operations with two of four key permits still operative
- Boric acid produced from solution mining and pilot plant operations
- Focus on moving quickly into construction and production
- Experienced board and senior management team fully aligned with shareholders

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# Contact Details



**AmericanPacific**

BORATE & LITHIUM  
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**Anthony Hall**

Executive Director

+61 417 466 039

[ahall@americanpacificborate.com](mailto:ahall@americanpacificborate.com)

**Lachlan Rutherford**

Head of Strategy & Corporate Development

+61 487 681 860

[lrutherford@americanpacificborate.com](mailto:lrutherford@americanpacificborate.com)

**Simon Hinsley**

NWR Communications

+61 401 809 653

**Charlie Bendon**

Tamesis Partners LLP (UK)

+44 7968 167 030

**Website**

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

**Registered Office**

Level 24, Allendale Square

77 St Georges Terrace, Perth WA 6000