



Upcoming IPO

A Lithium Triangle play

Centaur Resources is developing the Lobo Blanco Lithium Project in Argentina. This 100%-owned project, which covers around 11,000 ha of ground, is in an established lithium mining district in Salta Province of northwestern Argentina. In the near term, Centaur is seeking a JORC resource of lithium metal at Lobo Blanco sufficient for mine development. Centaur is currently raising A\$15m at 20 cents per share. The stock is expected to commence trading on ASX around 6 November 2018. This research should be read in conjunction with the Prospectus available on CR3's website.

An interesting commodity and neighbourhood

The current boom in electric vehicles has significantly boosted demand for all the components of lithium-ion batteries, coming as it does alongside ongoing robust demand for such batteries in smartphones, power tools and wearables. There are two basic sources of lithium – hard rock and brine. The latter represents the low-cost option, since all that is required here, for a mine with sufficiently high grades to be economic, is to drill wells into the brine zones, pump the brine, and let evaporation take its course. The so-called 'Lithium Triangle' encompassing northwestern Argentina (Jujuy, Salta and Catamarca provinces), northeastern Chile and southwestern Bolivia holds a lot of the world's lithium brines due to its favourable climate for evaporation. This part of the world has been a 'company maker' for Australia's Orocobre (ASX: ORE), and various juniors hope to follow in its footsteps. The lithium in the Triangle sits under dried lakebeds called 'salars'. Centaur's neighbours for Lobo Blanco on the Salar Pastos Grandes are two Canadian companies - Millennial Lithium (TSX-V: ML) and LSC Lithium (TSX-V: LSC). Recent drilling by Millennial has encountered thick lithium-bearing brine zones at depth. All the relevant pieces of infrastructure to develop a world-class lithium mine are available in the district.

Exploration and resource drilling to start soon

Over the next twelve months Centaur intends to complete the relevant exploration and resource drilling, followed by well development, that would allow an initial JORC resource to be proved up. After this resource has been established, Centaur will initiate a BFS for an operation producing 25,000 tpa of lithium carbonate, converting to 8,000 tpa lithium hydroxide.

Share Price: A\$0.20

ASX: CR3

Sector: Materials

16 October 2018

Market Cap. (A\$ m)	50.0
# shares outstanding (m)	250.0
# share fully diluted	253.8
Market Cap Ful. Dil. (A\$ m)	50.8
Free Float	~50%
12 months high/low	N/A
1 / 3 / 12-month performance	N/A
Website	centaurresources.com

Source: Company

Source and use of funds	A\$'000	A\$'000
Cash now	100	
Cash raised	15,000	
Year 1 expenditure		
Acquisition of Argentinian Properties		-3,803
Exploration expenditure		-2,010
Expenses of offer		-2,231
Overhead costs		-2,000
Total expenditure	10,044	
Year 2 expenditure		
Exploration expenditure		-1,625
Overhead costs		-2,000
Total expenditure	-3,625	
Funds at end of year 2	1,431	

Source: Company

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Introducing Centaur Resources

Centaur Resources is developing the Lobo Blanco Lithium Project in Argentina. This 100%-owned project, which covers around 11,000 ha of ground, is in an established lithium mining district in Salta Province of northwestern Argentina. In the near term, Centaur is seeking a JORC resource of lithium metal at Lobo Blanco sufficient for mine development.

Why is Centaur's location in Argentina important? There are two basic sources of lithium – hard rock¹ and brine. The latter represents the low-cost option, since all that is required here, for a mine with sufficiently high grades to be economic, is to drill wells into the brine zones, pump the brine, and let evaporation take its course². The so-called 'Lithium Triangle' encompassing northwestern Argentina (Jujuy, Salta and Catamarca provinces), northeastern Chile and southwestern Bolivia holds a lot of the world's lithium brines due to its favourable climate for evaporation³. This part of the world has been a 'company maker' for Australia's Orocobre⁴ (ASX: ORE), and various juniors hope to follow in its footsteps. The lithium in the Triangle sits under dried lakebeds called 'salars'. Centaur's neighbours for Lobo Blanco on the Salar Pastos Grandes are two Canadian companies - Millennial Lithium (TSX-V: ML) and LSC Lithium (TSX-V: LSC). Recent drilling by Millennial has encountered thick lithium-bearing brine zones at depth. All the relevant pieces of infrastructure to develop a world-class lithium mine are available in the district.

Why are potential new lithium mines valuable? The current boom in electric vehicles has significantly boosted demand for all the components of lithium-ion batteries, coming as it does alongside ongoing robust demand for such batteries in smartphones, power tools and wearables. In its September 2018 corporate presentation Centaur has cited a number of sources that are bullish in their medium-term outlook (see, for example, slide 6).

What are Centaur's plans for Lobo Blanco? Over the next twelve months Centaur intends to complete the relevant exploration and resource drilling, followed by well development, that would allow an initial JORC resource to be proved up. After this resource has been established, Centaur will initiate a BFS for an operation producing 25,000 tpa of lithium carbonate, converting to 8,000 tpa lithium hydroxide.

Who is Centaur's management? CEO Brian Clifford, (ex-Managing Director of AMCI Investments⁵) whose background in carbon steel materials has brought together a team at Centaur with valuable technical knowledge related to the conversion of lithium brines into lithium carbonate and lithium hydroxide. The team includes the ex-General Manager of Orocobre and the ex-CFO of Rincon Lithium.

The Lithium Triangle was a company-maker for Orocobre

Centaur will initiate a BFS on a 25,000 tpa lithium carbonate plant after the JORC resource is completed

¹ With spodumene and pegmatite the two most notable sources.

² To produce lithium carbonate then typically requires impurity removal via solvent extraction, followed by carbonation and ion exchange to produce high purity lithium carbonate.

³ There are also notable brine deposits in the US states of Nevada and Wyoming. Anson Resources (ASX: ASN) is developing the Paradox Brine Project in Utah.

⁴ Whose Salar de Olaroz Mine in Jujuy province, when it started production in 2015, made Orocobre the first brine based global lithium carbonate supplier in over twenty years.

⁵ Responsible for the Australian and South East Asia operations of the ACMI Group. ACMI is a private-equity giant run by German billionaire Hans Mende.



Why Lobo Blanco has potential for Centaur

Brine zones on the Pastos Grandes salar grade very high for lithium

Centaur has interesting acreage on the Salar Pastos Grandes. This salar is located around five hours drive north of Salta City, the provincial capital, at an altitude of 3,500-4,000 meters⁶. At Pastos Grandes, as with many other salars in this part of the Andes, there is an upper halite section, under which lies coarse-grained sands that host aquifers containing lithium-rich brines. What makes Pastos Grandes interesting is, firstly, the high grades of the lithium that has been identified in drilling – in the order of 400-600 mg/litre – at levels greater than 500 metres below surface. Grades tend to increase at depth in lithium brines, that’s encouraging. Centaur also believes that, so long as the experience of other operators to its north extend into the Lobo Blanco tenements, that the relatively coarse-grained rocks to be found in the sedimentary sequences elsewhere at Pastos Grandes will have the kind of porosity making for high extraction rates, while the brine itself will have a relatively low level of sulphate or magnesium impurities. Centaur has been careful to stake out acreage specifically for their groundwater potential, in order to have enough fresh water to power a future lithium carbonate plant.

Millennial seems to be on to something big with its Pastos Grandes Project. The Vancouver-based Millennial Lithium started work on its Pastos Grandes Lithium Project in 2016. By late November 2017 the company had identified Measured and Indicated Resources totaling 9.0×10^8 cubic metres of brine averaging 445 mg/litre lithium, containing 400,000 tonnes of lithium metal *in situ* or 2.1 million tonnes of lithium carbonate equivalent (LCE). By August 2018 Millennial was working on a DFS and pilot operation at Pastos Grandes, with evaporation ponds in place and a processing plant expected to be in operation by late 2018. A Preliminary Economic Assessment completed in February 2018 returned some favourable numbers. In August 2017 Millennial had been the successful tenderer for a parcel of land called the REMSA License⁷ to the south of its core resource, and close to Centaur’s Lobo Blanco ground. The REMSA license brought Millennial’s holding on the Pastos Grandes salar to 8,664 hectares. The reason Millennial tendered for the REMSA license was its belief that that ground hosted extensions to its original resource. Recent drilling has not been discouraging to that line of thinking.

What Millennial’s recent drilling at Pastos Grandes suggests for Centaur. On 8 September 2018 Millennial reported results from four wells in the REMSA License, all of which terminated in lithium-bearing brine zones at depths of more than 500 metres. One well, PGMW18-12—15, had a lithium horizon thicker than 200 metres and graded >500 mg/litre. The REMSA License is close to Lobo Blanco. Centaur does not expect that Lobo Blanco would face environmental obstacles should a decision to proceed be made.

Centaur’s ground is close to important infrastructure

The infrastructure position at Pastos Grandes is favourable. There is access to the relevant infrastructure for operators on the Pastos Grandes salar. Not only do well-paved roads cover the route from Salta City, but a 375-kilovolt power line runs along the road leading to Chile, and there is a gas pipeline less than 30 km away. For equipment and reagents being brought from abroad, railways run to Salta from both the Chilean port city of Antofagasta and from Buenos Aires. All this makes it relatively easy for new projects to get up and running.

Argentina is open for business, and for overseas mining companies. For most of the period 1996 to 2016 Argentina tended to regress from the market-

⁶ The nearest town is Santa Rosa de los Pastos Grandes.

⁷ The ground was offered for tender by REMSA (Recursos Energéticos y Mineros de Salta), a Salta provincial government authority.



Millennial's Preliminary Economic Assessment for its resource was favourable

friendly public policies of the early and mid-1990s. The election of Mauricio Macri as President in December 2015, after 12 years of leftist rule, has now sharply reversed this trend, with reforms implemented by his administration, including an end to the ban on overseas remittance of profits and the dropping of the fixed exchange rate against the US dollar, having prompted new capital to enter the country⁸. The Macri government is generally regarded as 'pro-mining', having repealed a 5% tax on mining exports. While there remain potential issues over environmental regulations, the overlap on federal and provincial taxes, and variations on regulations from province to province, investment in the mining sector is now rising⁹.

What to watch for at Lobo Blanco. Within twelve to eighteen months from listing, Centaur Resources hopes to be able to declare its maiden JORC resource at Lobo Blanco, according to the company's Prospectus. It's notable that Millennial Lithium has a market capitalisation of C\$127.5m¹⁰, however the February 2018 PEA¹¹, based solely on the production of 25,000 tpa of lithium carbonate, suggested an after-tax NPV of US\$607m at a 10% discount rate¹² with lithium carbonate technical grade pricing ranging between US\$9,200 and US\$9,400 per short ton¹³. Centaur believes that it can potentially go after a similar sized operation given the size of its tenement holding. The company has developed the relevant intellectual property over pilot scale lithium carbonate and lithium hydroxide plants and is evaluating options for how to build and test these. One option is a plant producing 1,200 tonnes of lithium carbonate, and, from that, 450 tonnes of lithium hydroxide. This pilot plant would precede full-scale productions for the first two or three years at Lobo Blanco.

Companies to watch. Lithium Power International¹⁴ (ASX: LPI) and Argosy Minerals¹⁵ (ASX: AGY) are two other companies in the Lithium Triangle with similarities to Centaur.

⁸ It's worth noting, however, that Macri's centre-right Cambiemos party lacks a majority in both chambers of Argentina's National Congress.

⁹ See *Mining companies still reluctant to tap Argentina deposits* by Juliana Castilla, Reuters, 23 May 2018.

¹⁰ 10 October 2018 close on TSX-V.

¹¹ See WorleyParsons' report, headlined *Preliminary Economic Assessment of the Pastos Grandes Project Salta Province, Argentina* and dated 23 February 2018. The report can be found on SEDAR by accessing Millennial's public filings.

¹² See page 213 of the WorleyParsons report.

¹³ See page 191 of the WorleyParsons report.

¹⁴ Market cap A\$75m for 51% of the Maricunga Lithium Project in Chile. This project, located in the III Región de Atacama, has a JORC resource established in 2017 of 2.15 million tonnes of lithium carbonate equivalent. The grades at Maricunga are spectacular, at 1,160 mg/Litre lithium. A DFS is expected to be completed soon.

¹⁵ Market cap A\$189m for 77.5% of the Rincon Lithium Project, also in Salta Province. This project only reached its maiden JORC resource in June 2018. The resource, in the inferred category, is 208,000 tonnes of contained lithium carbonate equivalent. Average grades are in the order 324-369 mg/Litre.

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