

ASX RELEASE

31 January 2022

Activity Report for the Quarter ended December 2021

Lithium Power International Limited (**ASX:LPI**) ('LPI' or '**the Company**') is pleased to provide shareholders with an overview of quarterly activities for the period ending 31 December 2021 ('Quarter', 'Reporting Period'), including subsequent events that might have a significant impact between 31 December 2021 and the date of issuance of this Report.

HIGHLIGHTS

- Positive results delivered by the updated Definitive Feasibility Study for the Stage One Maricunga Lithium Brine Project
 - Maricunga Stage One DFS delivers US\$1.4bn NPV (after tax) at an 8% discount rate, providing an IRR of 39.6% and a 2-year payback. Average annual EBITDA of US\$324m
 - 15,200 tonnes per annum production of lithium carbonate (LCE) for 20 years with an exceptional ESG profile
 - Operating cost (OPEX) of US\$3,718 per tonne of LCE produced, placing the Stage One project in the lower quartile of LCE producers.
 - Project direct development cost estimated at US\$419m, indirect costs at US\$145m and contingency costs at US\$62m to provide a total project CAPEX of US\$626m.
- Revised DFS completed by Tier-1 engineering consultancy Worley to international standards, with cost inputs from EPC contractors to provide greater certainty on cost estimates.
- Preliminary indications of interest received from international and Chilean financial institutions and private funds for debt financing and future equity financing of the project, with engaged financial advisers, Canaccord and Treadstone assisting the Company with this process.
- Updating of the EPC proposals will commence during Q1. Final Investment Decision expected for 2022, with construction to start immediately after.
- Completion of the Share Purchase Agreement with Vertex Lithium Corporation, to acquire 70% of LPI's lithium exploration properties on the Centenario Salar in Argentina.

HIGHLIGHTS CONTINUED

- Exploration activities in Western Australia continues. Completion of a high-definition drone magnetic survey at the Blackwood Prospect over a significant structural anomaly on the Donnybrook-Bridgetown Shear Zone, along strike from the world-class Greenbushes lithium pegmatite deposit in SW Western Australia.
- Soil sampling commenced at Blackwood Prospect based on the results of the survey. Phase 1 of detailed baseline flora assessment completed, while fauna component also completed in November.
- Soil sampling completed at the Pilgangoora tenement, adjacent to Pilbara Minerals' Pilgangoora lithium mine.
- LPI to spin-out its Western Australian Greenbushes and Pilgangoora lithium assets in the next six months. WA interests are held by a wholly owned subsidiary of LPI (DemergeCo), which will seek to list on the ASX, subject to ASX, ATO and Shareholder approval.
- LPI shareholders to receive DemergeCo shares on a pro rata basis via a capital reduction and in-specie distribution, subject to shareholder and regulatory approvals.

MARICUNGA STAGE ONE PROJECT – CHILE

Subsequent to the quarter, LPI provided details of the completed Definitive Feasibility Study (DFS) for its Maricunga Stage One Lithium Brine Project in northern Chile. The study confirms that Maricunga Stage One would be one of the world's lowest-cost producers of lithium carbonate, with a solid ESG strategy to support a sustainable future.

Table 1: Summary of key economic parameters of the Stage One project

NPV Discount Rate	Leveraged (50%)		Pure Equity	
	Pre-Tax US\$m	After-Tax US\$m	Pre-Tax US\$m	After-Tax US\$m
NPV 8%	1,984	1,425	1,971	1,412
IRR	44.5	39.6	33.4	29.3
Project Payback (Years)	2	2	2.8	2.8

MARICUNGA STAGE ONE PROJECT – TERMS OF REFERENCE

The Stage One Project (herein the 'Project') is owned and operated by Minera Salar Blanco S.A. ('Minera Salar Blanco or MSB'). MSB is in turn owned by Lithium Power International (ASX:LPI) 51.55%; Minera Salar Blanco SpA (previously BBL) 31.31%; and Bearing Lithium Corp. (TSXV: BRZ) 17.14%. The associated report prepared by Worley and Atacama Water for MSB provides a National Instrument 43-101 ('NI 43-101') compliant Definitive Feasibility Study ('DFS') of the 'Stage One Project' located in Salar de Maricunga in the Atacama Region of northern Chile. The report provides an independent updated Mineral Reserve estimate and a technical appraisal of the economic viability of the production of an average of 15,200t/a of battery grade lithium carbonate over a 20-year mine-life from the lithium contained on the 'Old Code' mining concessions (OCC) 100% owned by MSB, based on additional exploration work carried out to 400m depth during 2021.

The OCC are constituted under the 1932 Chilean Mining Code and do not require a special license from the Chilean Government (Contrato Especial de Operación del Litio – CEOL) for the production and sale of lithium products. Resource estimates are for lithium and potassium contained in brine. The DFS report was prepared under the guidelines of NI 43–101 and in conformity with its standards.

All items related to geology, hydrogeology, mineral resources and reserves were prepared by consultants Atacama Water, based in Santiago, Chile. Highly experienced process consultant Peter Ehren was responsible for preparing all technical items related to brine chemistry and mineral processing. Capital and Operating expenditures mentioned in the associated NI 43–101 report were estimated by Worley, relying on quotations requested from equipment, chemicals and other suppliers, as well as from its project data base and costs from EPC contractors quoting on the project. Worley relied extensively on Minera Salar Blanco and its consultants, as cited in the text of the study and the references, for information on future prices of lithium carbonate, legislation and tax in Chile, as well as for general project data and information.

The report was reviewed by Mr Marek Dworzanowski, CEng., BSc (Hons), HonFSAIMM, FIMMM of Worley, Mr Peter Ehren, MSc, MAusIMM and Mr Frits Reidel, CPG. Mr Marek Dworzanowski, Mr Peter Ehren and Mr Frits Reidel are ‘qualified persons’ (QP) and are independent of MSB as such terms are defined by NI 43–101. This DFS report was then reviewed for JORC standards by Mr Murray Brooker, MAIG, CPGeo, to comply with the reporting requirements of ASX.

PROPERTY DESCRIPTION AND OWNERSHIP

The Project is located 170 km northeast of Copiapó in the III Region of northern Chile at an elevation of 3,750 masl (above mean sea level). The property is centred at approximately 492,000 mE, 7,025,000 mN (WGS 84 datum UTM Zone 19). The Project covers 1,125 ha of mineralised ground in Salar de Maricunga; 100 ha just to the northeast of the salar for camp and evaporation test facilities, and an additional 1,800 ha eight kilometres north of the salar for the construction of evaporation ponds, process and plant facilities.

The mineralised area of the Stage One Project comprises the following mining concessions: Cocina 19–27 (450 ha), Salamina, Despreciada, and San Francisco (675 ha). These concessions, known as ‘Old Code’ mining concessions (OCC), were constituted under the 1932 Chilean mining law and have grand-fathered rights for the production and sale of lithium products. The OCC does not require any special license from the Chilean Government (Contrato Especial de Operación del Litio – CEOL) for the production and sale of lithium products. MSB also own 100% of the Litio 1–6 concessions comprising 1,438 ha, known as ‘New Code’ concessions, where a future expansion is under evaluation. The Litio 1–6 concessions do require a special license or CEOL for their exploitation.

EXPLORATION AND DRILLING

The following exploration, drilling and testing programs were carried out on the MSB concessions between 2011 and 2021.

EXPLORATION DRILLING

Five (5) tricone / HQ /HWT core holes (S-25 through S-29) were drilled on the OCC by Major Drilling in 2021 with tricone from ground surface to 200m depth and cored at HQ diameter from 200m to 400m depth. HWT casing was installed during the drilling to provide hole stability and facilitate depth-representative brine sampling. Continuous HQ core was collected for geological logging and the preparation of ‘undisturbed’ sub-samples (66) at 12m intervals between 200m and 400m depth.

The five boreholes were completed as monitoring wells with blank and slotted 3-inch diameter PVC casing to facilitate BMR logging and future water level and brine chemistry monitoring.

BMR and LithSight downhole logging was carried out in boreholes S-25 through S-29 by geophysical contractor Zelandez.

718 primary brine samples (not including QA/QC samples) were analysed by the University of Antofagasta, Alex Steward Assayers, or Andes Analytical. Assays were used in the mineral resource estimation.

561 undisturbed samples from the sonic and HQ core were analysed by Daniel B Stephens and Associates (DBSA), Geo Systems Analysis (GSA) or Corelabs for drainable porosity and other physical parameters used for resource estimation.

PUMPING TESTS

A fourth production well (P-5) was drilled at 17½ inch diameter to a depth of 400m using the reverse flooded method. The well was completed with 12 inch diameter SS blank and screened production casing. The screened interval of the well was completed in the deep brine aquifer.

One 30-day pumping test is being carried out on production well P-5 at a pumping rate of 35 l/s, similar to pumping rates in earlier wells P-1, P-2 and P-4. Water level measurements are being made in adjacent exploration well S-25.

GEOLOGY

Based on the drilling campaigns carried out in the salar between 2011 and 2021, eight major geological units were identified and correlated from the logging of drill cuttings and undisturbed core to a general depth of up to 400m. Only borehole S-29 on the western edge of the salar encountered bedrock at 219m depth. An upper halite unit occurs (up to 34m in thickness) in the central northern part of the salar and hosts the upper brine aquifer. The halite unit is underlain by low permeability lacustrine sediments. The salar is surrounded by relative coarse grained alluvial and fluvial sediments. These fans demark the perimeter of the actual salar and at depth grade towards the centre of the salar where they form the distal facies with an increase in sand and silt. At depth two unconsolidated volcanoclastic units have been identified that appear quite similar. These two volcanoclastic units are separated by a relatively thin and continuous sand unit which may be reworked material of the lower volcanoclastic unit. A volcanic breccia was identified on the northern and western parts of the OCC that locally interfingers with the lower volcanoclastic unit. A lower brine aquifer is hosted in the lower alluvial, volcanoclastic, and volcanic breccia units (below the lacustrine sediments).

STATUS OF EXPLORATION, DEVELOPMENT AND OPERATIONS

MSB completed a first positive DFS for the original Blanco Project in 2019 based on brine production from all concessions (OCC and Litio 1–6) to 200m depth and a 20ktpa LCE production capacity.

MSB received all environmental approvals (RCA) from the Chilean authorities in February 2020 for the construction and operation of mining and processing facilities to produce 20ktpa of LCE over a 20-year mine-life. MSB received in 2018 a license from the Chilean Nuclear Energy Commission (CCHEN) for the production and sale of 35,554 tons of Lithium Metal Equivalent (LME) from the OCC.

This NI 43–101 technical report presents the results of the DFS for the Stage One project based on brine production only from the OCC to support an average of 15.2 ktpa of LCE mining and processing facilities over a 20-year mine-life. The currently approved environmental permits will support this Stage One Project development.

It is expected that the finance structuring for the Stage One Project will be successfully completed during 2022 and that a project construction decision can be made immediately thereafter by the end of the year.

BRINE RESOURCE ESTIMATES

The resource model domain is constrained by the following factors:

- The top of the model coincides with the brine level in the salar that was measured in the monitoring wells installed in the salar.
- The lateral boundaries of the model domain are limited to the area of the OCC mining concessions.
- The bottom of the model domain coincides with the bedrock contact or 400m depth.

The specific yield values used to develop the resources are based on results of the logging and hydrogeological interpretation of chip samples and recovered core of 8 rotary boreholes and 17 sonic and HQ core holes, results of drainable porosity analyses carried out on 561 undisturbed samples from sonic and HQ core by GeoSystems Analysis, Daniel B Stephens and Associates, Corelabs, and four pumping tests. Boreholes within the measured and indicated resource areas are appropriately spaced at a borehole density of one bore per 1.5 km².

The distributions of lithium and potassium concentrations in the model domain are based on a total of 718 brine analyses (not including QA/QC analyses) mentioned above.

The resource estimation for the project was developed using the Stanford Geostatistical Modelling Software (SGeMS) and the geological model as a reliable representation of the local lithology. Table 2 shows the Measured and Indicated Resource for lithium and potassium for the OCC.

It should be noted that the OCC M+I Resources described in Table 2 and 3 are in addition to the M+I Resources (2018) of 184kt Lithium (979kt LCE) in the Litio 1–6 concessions to a depth of 200m.

**Table 2: Lithium and Potassium Measured and Indicated Resources of the Stage One Project
'Old Code' Concessions – dated 20 September 2021**

	Measured (M)		Indicated (I)		M+I	
	Li	K	Li	K	Li	K
Area (km ²)	4.5		6.76		11.25	
Aquifer volume (km ³)	1.8		1.8		3.6	
Mean specific yield (Sy)	0.09		0.12		0.1	
Brine volume (km ³)	0.162		0.216		0.378	
Mean grade (g/m ³)	87	641	111	794	99	708
Concentration (mg/l)	968	7,125	939	6,746	953	6,933
Resource (tonnes)	154,500	1,140,000	203,500	1,460,000	358,000	2,600,000

Notes to the Resource Estimate:

CIM definitions (2014) were followed for Mineral Resources.

The Competent Person for this Mineral Resource estimate is Murray Brooker, MAIG, CPGeo.

No cut-off values have been applied to the resource estimate.

Numbers may not add due to rounding.

The effective date is 20 September 2021.

Table 3: OCC resources expressed LCE and potash

	M+I Resources	
	LCE	KCL
Tonnes	1,905,000	4,950,000

Notes:

Lithium is converted to lithium carbonate (Li₂CO₃) with a conversion factor of 5.32.

Potassium is converted to potash with a conversion factor of 1.9.

Numbers may not add due to rounding.

BRINE RESERVE ESTIMATE

A three-dimensional finite element groundwater flow and transport model (FEFLOW code) was constructed and successfully calibrated to steady state pre-mining conditions and to transient pumping test responses. The calibrated model was used to simulate brine production scenarios from the Stage One concessions over a 20-year project life. These simulations form the basis for the Stage One Lithium Mineral Reserve Estimate.

The reserve estimate for the Stage One Project was prepared in accordance with the guidelines of National Instrument 43–101 and uses the best practices methods specific to brine resources. The lithium reserves are summarised in Table 4.

**Table 4: Stage One Brine Production Reserve for lithium carbonate production
(after assuming 65% lithium process recovery efficiency)**

Category	Year	Brine volume Mm ³	Average lithium concentration mg/l	Lithium metal tonnes	LCE tonnes
Proven	1–7	19	1,024	9,000	49,000
Probable	1–7	13	1,024	12,000	66,000
Probable	8–20	60	950	37,000	196,000
All	1–20	92	976	58,000	311,000

Notes to the Reserve Estimate:

The Stage One Reserve Estimate includes an optimized wellfield configuration and pumping schedule to comply with environmental constraints and water level decline restrictions as part of the environmental approval document (RCA) issued by the Chilean Environmental Agency.

Lithium is converted to lithium carbonate (Li₂CO₃) with a conversion factor of 5.32.

The qualified person for the Mineral Reserve estimate is Mr Frits Reidel CPGeo.

The effective date for the Reserve Estimate is 22 December 2021.

Numbers may not add due to rounding effects.

Approximately 25 percent of the Measured and Indicated Resources are converted to Proven and Probable Reserves as brine feed from the production wellfield to the evaporation ponds without accounting for the lithium process recovery efficiency. The overall conversion from M+I Resources to Total Reserves including lithium process recovery efficiency of 65% is approximately 16 percent.

EXPLORATION POTENTIAL

Measured and Indicated Resources have been defined to 400m depth in the OCC (1.9Mt LCE) and to 200m depth in the Litio 1–6 concessions (1.0Mt LCE). The geological model for the project suggests that the same geological units that host the lower brine aquifer below the OCC between 200 and 400m depth continue below the Litio 1–6 concessions. Geophysical data suggest that the lower aquifer hosted in the Volcanoclastic units and Volcanic breccia continues to the bedrock contact at a variable depth of up to 550m. An exploration target has been identified below the base of the current M+I Resources in the OCC and Litio 1–6 concessions to the bedrock contact with an estimated 1.2Mt – 2.1Mt LCE providing a significant potential for resource expansion.

LITHIUM RECOVERY PROCESS

The facilities have been designed to produce an average of 15,200tpa of lithium carbonate (Li₂CO₃) battery grade over a 20-year mine-life.

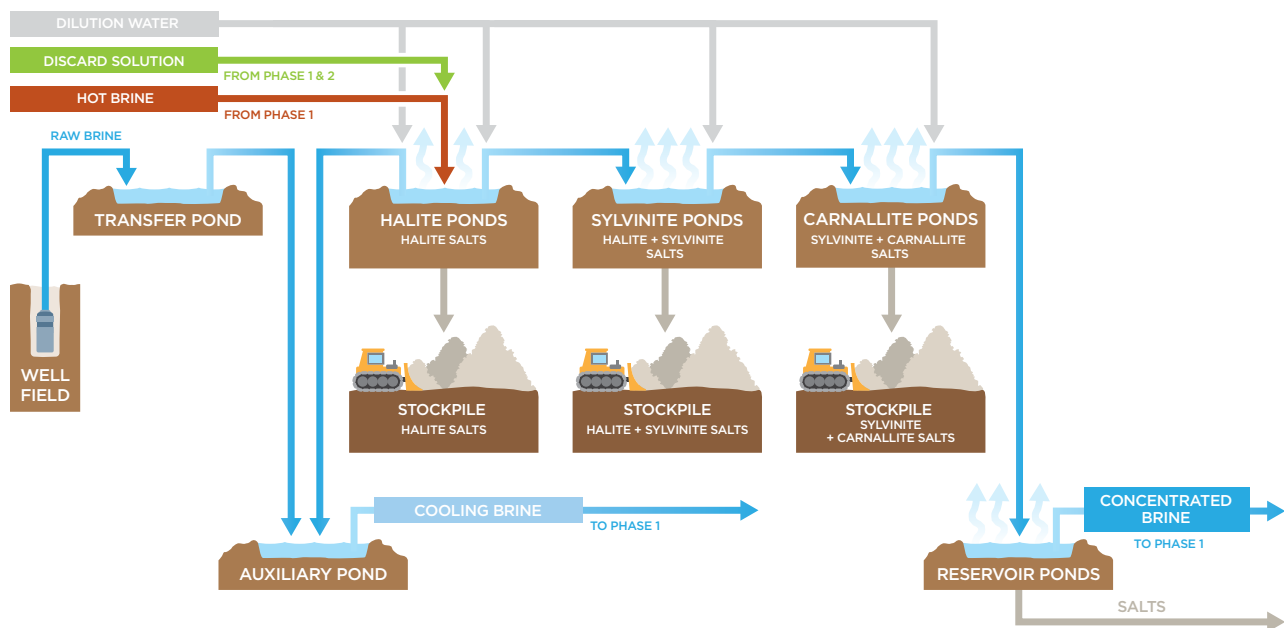
The brine obtained from the production wells in the salar is pumped to evaporation ponds, where it is concentrated through evaporation causing the saturation of the salts crystallising mainly halite, sylvinite and carnallite. All crystallised salts are periodically harvested from the ponds and stored in stockpiles defined for such purpose.

The concentrated lithium brine obtained from the evaporation ponds is pumped directly to reservoir ponds, which feed a Salt Removal Plant. This plant mainly removes calcium impurities as calcium chloride and tachyhydrite from the brine and generates a stable feed in terms of chemical composition to the Lithium Carbonate Plant. This is achieved through consecutive evaporation and crystallisation steps. This process allows a higher and faster concentration of the lithium in the brine and reduces the lithium losses with the precipitated salts, thus increasing the overall efficiency.

The concentrated lithium brine obtained from the Salt Removal Plant is subsequently fed to the Lithium Carbonate Plant, where through processes of purification, ion exchange and filtration, remaining impurities such as boron, calcium and magnesium are removed. The lithium concentrated brine is then fed to a carbonation stage, where through the addition of soda ash, lithium carbonate precipitates. This precipitated lithium carbonate is then fed to a centrifuge for water removal, and finally dried, and packed.

A simplified diagram of the process is presented below in Figure 1.

Figure 1: General Process Diagram



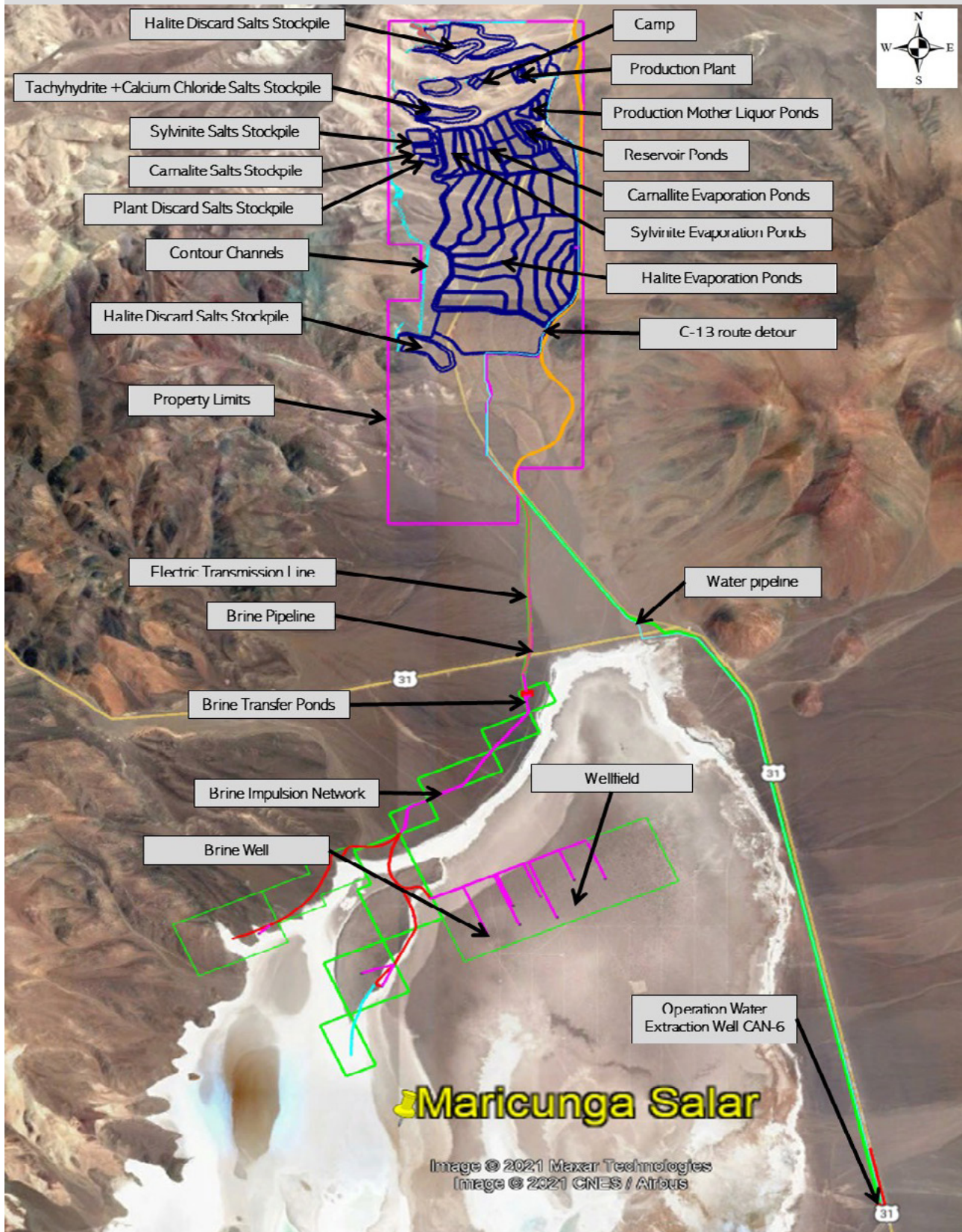
PROJECT INFRASTRUCTURE

The facilities that are considered for the project include mainly the following areas:

- Solar evaporation pond installations (transfer pumps, dilution water tanks, among others);
- Salt Removal Plant – (named also Phase 1);
- Lithium Carbonate Plant – (named also Phase 2);
- Utilities for process ancillary services (reagents, water, compressed air, steam boilers, among others);
- Installations for plant ancillary services (administration offices, laboratory, among others);
- Workers' camp; and
- Temporary contractors' installations.

Figure 2: Project location presenting all main installations

Source: Worley - Google Earth



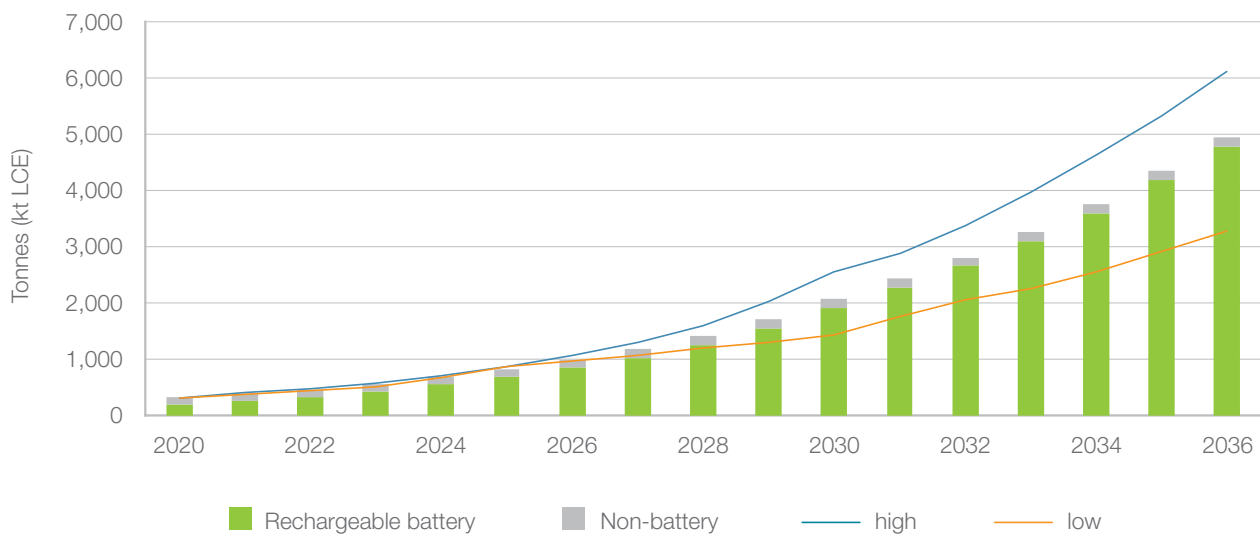
MARKETS AND PRICING

CONSUMPTION

Source: Roskill

Under Roskill's base-case scenario, lithium demand is forecast to increase by 12.6% pa in the period to 2036, reaching a total of 4.95Mt in 2036. In the 'High-case', forecast lithium demand is expected to increase by 20.1% CAGR in the period from 2021 to 2036, reaching a total of 6.14 Mt LCE.

Figure 3: World: Forecast consumption of lithium by first use, 2020–2036 (000t LCE)



Source: Roskill

As a result of the strong growth in demand from rechargeable battery applications, demand for battery grade products is forecast to accelerate over the outlook horizon.

As a result of demand significantly outpacing that of refined supply Roskill forecast structural deficits to form in the market from the mid-2020s. The deficits are not definitive, however, and should be viewed as the 'investment requirement' for additional supply.

PRICES

From 2021, Roskill expects demand growth to return to higher levels – perhaps turbo-charged by government initiated COVID-19 economic recovery programmes – and with some capacity (built or under construction) temporarily or permanently off-line, and some brownfield/greenfield project development suspended, demand will start to stretch supply into 2022. Sentiment may well improve ahead of fundamentals, further incentivising prices, as has been witnessed in the downstream battery/EV sector even during 2020 as a 'green' recovery is increasingly seen following the COVID-19 impact.

Roskill forecast for contract battery-grade carbonate prices to average US\$23,609/t (constant 2021 US dollars) over the 2021–2036 horizon. Whereas for domestic China spot prices Roskill forecast an average of US\$24,683/t (constant 2021 US dollars) over the same time period.

ENVIRONMENTAL STUDIES, PERMITTING AND SOCIAL OR COMMUNITY IMPACT

MSB received the environmental approval for its Maricunga Project on 4 February 2020, considering the construction and operation of both, a 58,000tpa Potassium Chloride (KCL) Plant and a 20,000tpa Lithium Carbonate Plant over a period of 20 years (KCL plant has not been included in this DFS). The EIA approved a brine extraction of 209 l/s, freshwater extraction of 35 l/s and all associated industrial facilities, including evaporation pond areas, brine pipelines and the campsite. The Environmental Impact Assessment (EIA), prepared by international consulting company Stantec (previously MWH), was submitted to the Chilean Environmental Assessment Service (SEA¹) in September 2018 and was the culmination of more than two years of field and desk work.

CAPITAL AND OPERATING COST

CAPITAL EXPENDITURES – CAPEX

Capital expenditures are based on an average operating capacity of 15,200tpa of lithium carbonate.

Capital equipment and construction costs have been obtained from solicited quotes to equipment manufacturers and construction companies. Worley have confirmed a capital cost estimate accuracy within a +/- 11.1% range. Capital and operating cost estimates are expressed in fourth quarter 2021 US dollars.

Capital investment for the project, including equipment, materials, indirect costs and contingencies during the construction period is estimated to be US\$ 626 million. Out of this total direct project costs represent US\$419 million; indirect project costs represent US\$145 million, and the contingencies provision is US\$62 million. The indirect project costs represent 34.6% of direct project costs, while the contingencies represent 11.1% of direct plus indirect project costs.

In addition, sustaining capital expenditures total US\$42 million over the 23-year evaluation period of the project, which includes a 2.5-year construction period and an operating life of 20 years. Maximum working capital requirements over the project horizon is US\$15.8 million.

Total capital expenditures are summarized in Table 4.

Table 4: Total Capital Expenditures

Area	Total Project	Projected Budget US\$ '000
Direct Costs		
1000	Brine Extraction Wells	33,235
2000	Evaporation Ponds	89,878
5000	Salt Removal Plant	110,322
6000	Lithium Carbonate Plant	55,754
8000	General Services	83,953
9000	Infrastructure	45,814
Total Direct Cost		418,957
Total Indirect Cost		144,835
	Contingencies (11.1%)	62,581
Total Capital Expenditures		626,372

¹ 'Servicio de Evaluación Ambiental'.

OPERATING COST ESTIMATE

Expenses estimates, as well as manpower levels, are based on Worley's experience and information provided by MSB. As indicated in the table, energy costs – electrical and thermal – are the major operating cost of the project, closely followed by chemical reagents. Fuel consumed by the Salt Removal Plant is the major component of energy costs. Over 90% of the chemical reagents' costs correspond to soda ash and hydrochloric acid. Over 35,000 tpa of soda ash are required to produce an average of 15,200 tpa of Li_2CO_3 . Other important expense items are manpower, maintenance, and salt harvesting.

Table 5: Average Operating Costs

Average Operating Costs	US\$/Tonne Li_2CO_3	Total US\$ '000
Direct Costs		
Chemical Reactives and Reagents	1,099	16,704
Salt Harvesting	266	4,049
Energy	1,164	17,689
Memo – Electrical	342	5,206
Memo – Thermal	821	12,483
Manpower	518	7,867
Catering & Camp Services	132	1,999
Maintenance	358	5,443
Transport	181	2,756
Operational Cash Costs	3,718	56,506
Indirect Costs		
General & Administration	146	2,220
Indirect Costs Sub-total	146	2,220
Total Production Costs	3,864	58,726

ECONOMIC ANALYSIS

The cash flow projection results in the following project economic metrics:

Table 6: Base Case Economic Results (full equity project funding)

Economic Results		Before Taxes	After Taxes
NPV 6%	US\$m	2,529	1,827
NPV 8%	US\$m	1,971	1,412
NPV 10%	US\$m	1,545	1,095
IRR	%	33.4%	29.3%
PAYOUT	Time	2y, 8m	2y, 8m

Table 7: Economic Results (50/50 debt/equity project funding)

Economic Results		Before Taxes	After Taxes
NPV 6%	US\$m	2,513	1,811
NPV 8%	US\$m	1,984	1,425
NPV 10%	US\$m	1,582	1,131
IRR	%	44.5%	39.6%
PAYOUT	Time	2y, 0m	2y, 0m

The above tables show that the project's economic metrics are very attractive, with the IRR for the full equity case being 29.3% on an after-tax basis and a project NPV (8%) of US\$ 1,412m. In this same case, investment pay out occurs at 2 years and 8 months after the end of the investment period. Given the project's high rate of return, including debt in the capital structure further improves these results, as shown in the project's cash flow, and which produce the above shown results.

WESTERN AUSTRALIA GREENBUSHES PROJECT

BLACKWOOD PROSPECT – GREENBUSHES

Over the quarter, LPI provided updates on the exploration programme across the WA lithium tenements, particularly those immediately adjacent to the Greenbushes lithium mine owned by Talison Lithium.

The geophysical program at the Blackwood Prospect, within E70/4774, is designed to provide the Company the highest detail possible of the structural architecture of Donnybrook Shear Zone (DSZ).

A drone magnetometry survey has been completed to provide high resolution, accurate data that will reveal geological structures not visible with conventional surveys. This will assist LPI targeting where pegmatites are most likely located and to focus exploration sampling and drilling in these areas.

The Donnybrook Shear Zone (DSZ) is the major structure (Figures 5 and 6) that hosts the Greenbushes pegmatite mined by Talison. The DSZ and its subsidiary faults do not have a strong surface expression, as they are predominantly obscured by soil and/or laterite. They have been identified in the Blackwood Prospect by LPI through sampling and detailed investigation of the GSWA geophysical data.

The drone flew east-west lines over the area of the Blackwood Prospect (Figure 3) taking readings of the earth's magnetic field. A total of 422km flight line and traverse line total kilometres were flown along 154 NS lines on 40m spacing. A further 46km of EW tie lines on 400m spacing.

DRONE MAGNETIC SURVEY RATIONAL

The data is currently being processed to enable an advanced interpretation of the area, providing the highest detail possible of the structural architecture of the Donnybrook Shear Zone (DSZ). This will improve the understanding of where pegmatites are most likely to be located and focus the planning of soil sampling and subsequent RC drilling.

The DSZ is the major structure (Figure 3) that hosts the Greenbushes pegmatite mined by Talison. Along with its subsidiary faults, this zone does not have a strong surface expression because it is predominantly obscured by soil and/or laterite. It has been identified in the Blackwood Prospect by LPI through sampling and detailed investigation of the Geological Survey of WA's geophysical data.

The results of this work are being used to target areas for soil sampling (see below) and for Ground Penetrating Radar (DGPR) and geochemical sampling over identified NW faults, along which pegmatites may have intruded.

SOIL SAMPLING ON DILUTIONAL JOGS ON NW STRUCTURES

An orientation soil sampling program on 300m x 300m spacing has commenced at a newly defined target at the southern end of the Blackwood Prospect. Sampling is being conducted by conventional hand digging of pits and the use of a hand auger, to attempt to reach

Figure 4: Location of LPI's properties in the Pilbara and SW regions of Western Australia; work recently completed at Greenbushes Project and at Pilgangoora



Figure 5: Drone survey completed at the Blackwood Prospect which lies on the Donnybrook Shear Zone that hosts the Greenbushes Mine, shown over the regional RTP 1VD Collie & Pemberton Magnetic Images. Soil Sampling commenced over EW dilutional zones along NW trending structures off the DZS



EAST KIRUP PROSPECT – GREENBUSHES

BASELINE FLORA AND FAUNA SURVEYS

Two surveys have been completed to provide detailed baseline environmental information and to guide the development of a conservation management plan. These surveys are to be run over two seasons. A second field component will be completed in March 2022.

DRILLING PROGRAM

Drilling was scheduled to commence in mid-December 2021 but was delayed due to drilling contractor capacity limitations. The program planned for January was further delayed due to the contracted geologists and field staff contracting COVID. Revised scheduling for the drilling is underway.

PILGANGOORA PROSPECT

SOIL SAMPLING

The soil sampling program at Pilgangoora has been completed. A total of 544 samples were collected, including 10% duplicates. The sampling (Figures 7 and 8) was aimed at closing off previously defined lithium anomalies associated with the identified greenstone belts, and also at investigating the potential of gold within a younger granite and its contact aureole.

This intrusive body is considered to have similarities to the intrusive bodies where De Grey Mining has successfully defined a significant gold resource at their Mallina Project, which includes the 6+ million-ounce Hemi deposit. The samples have been dispatched for analysis, with results expected in February 2022.

Figure 6: Greenbushes Tenements

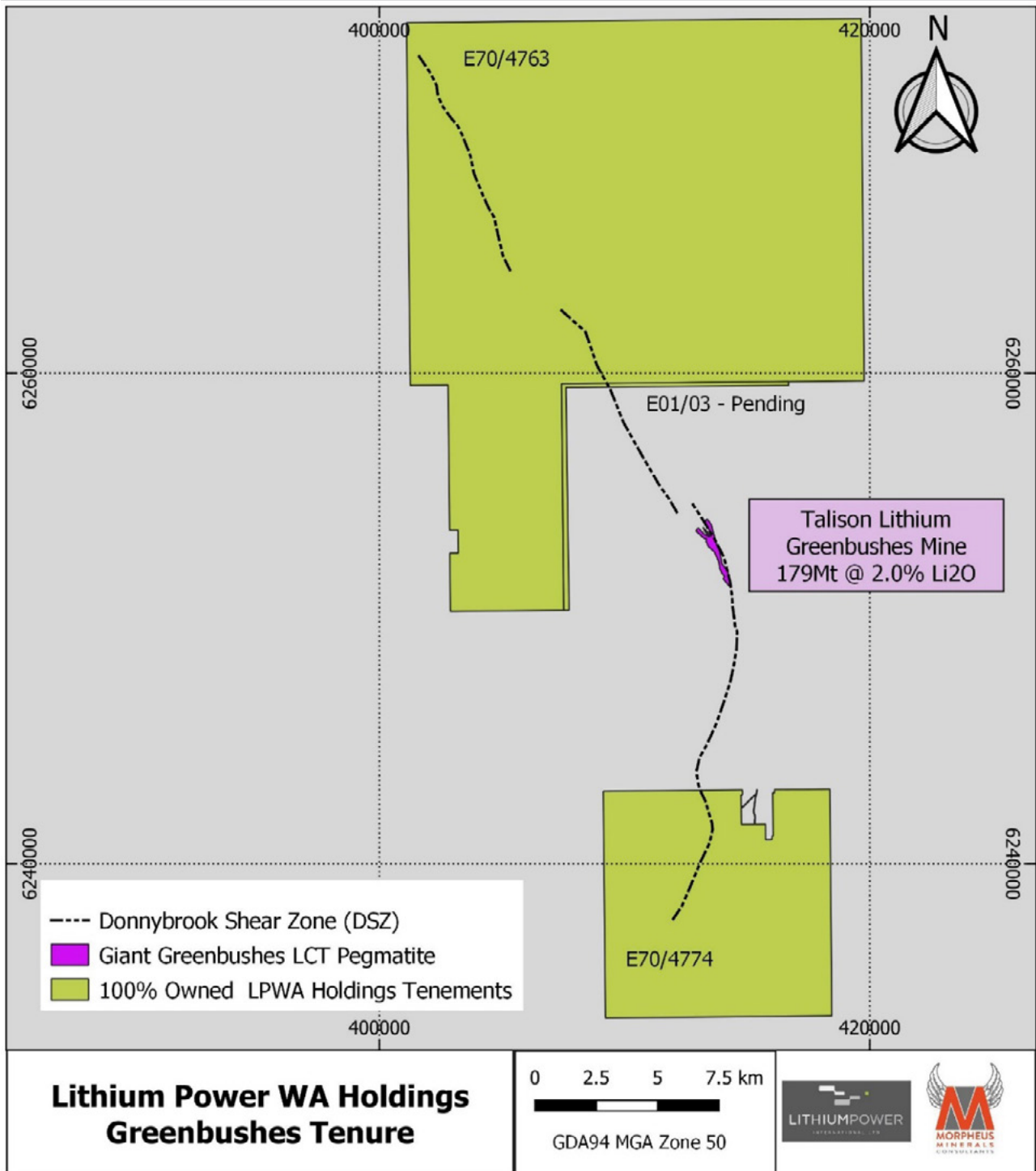


Figure 7: Pilbara Tenements

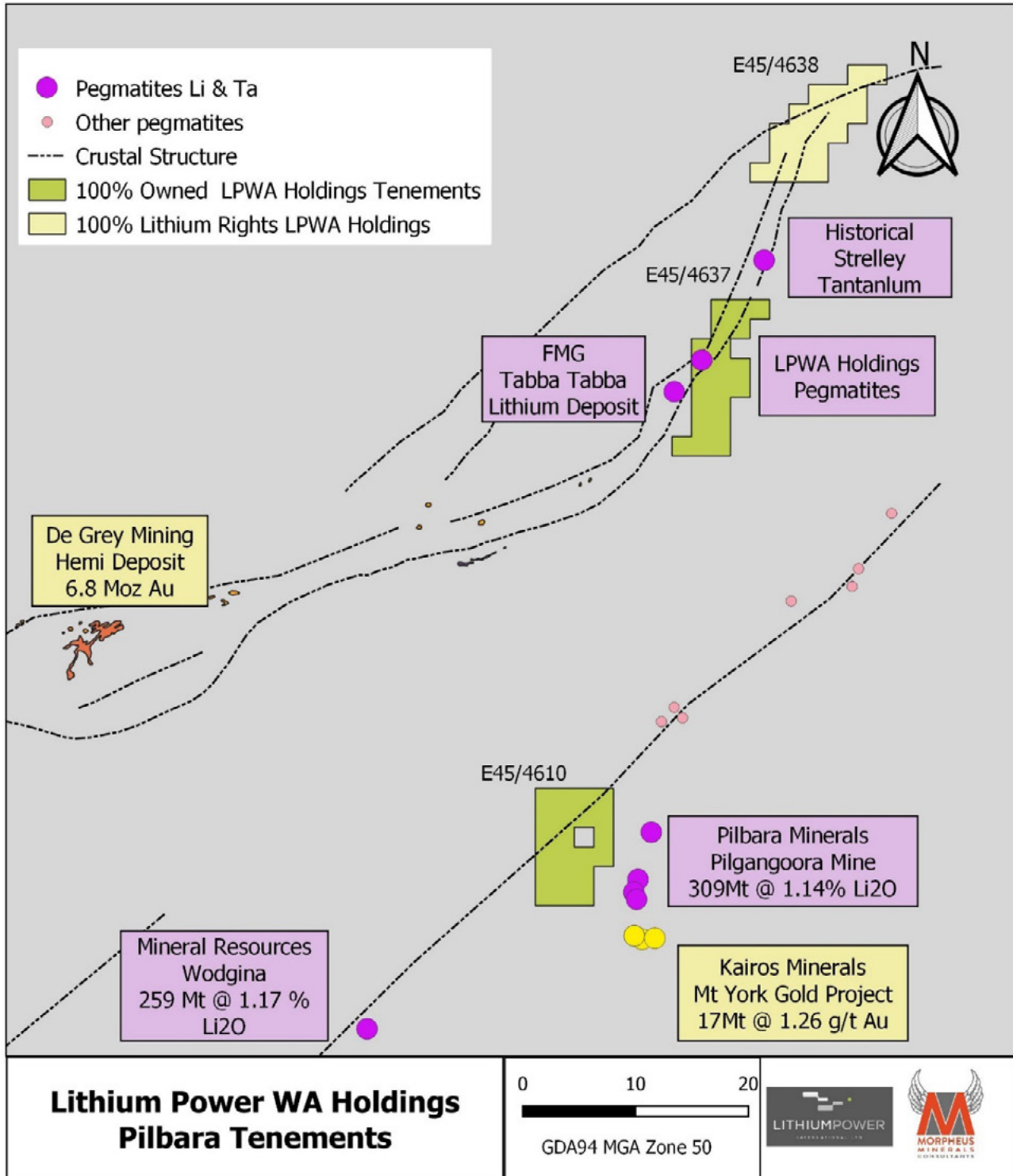
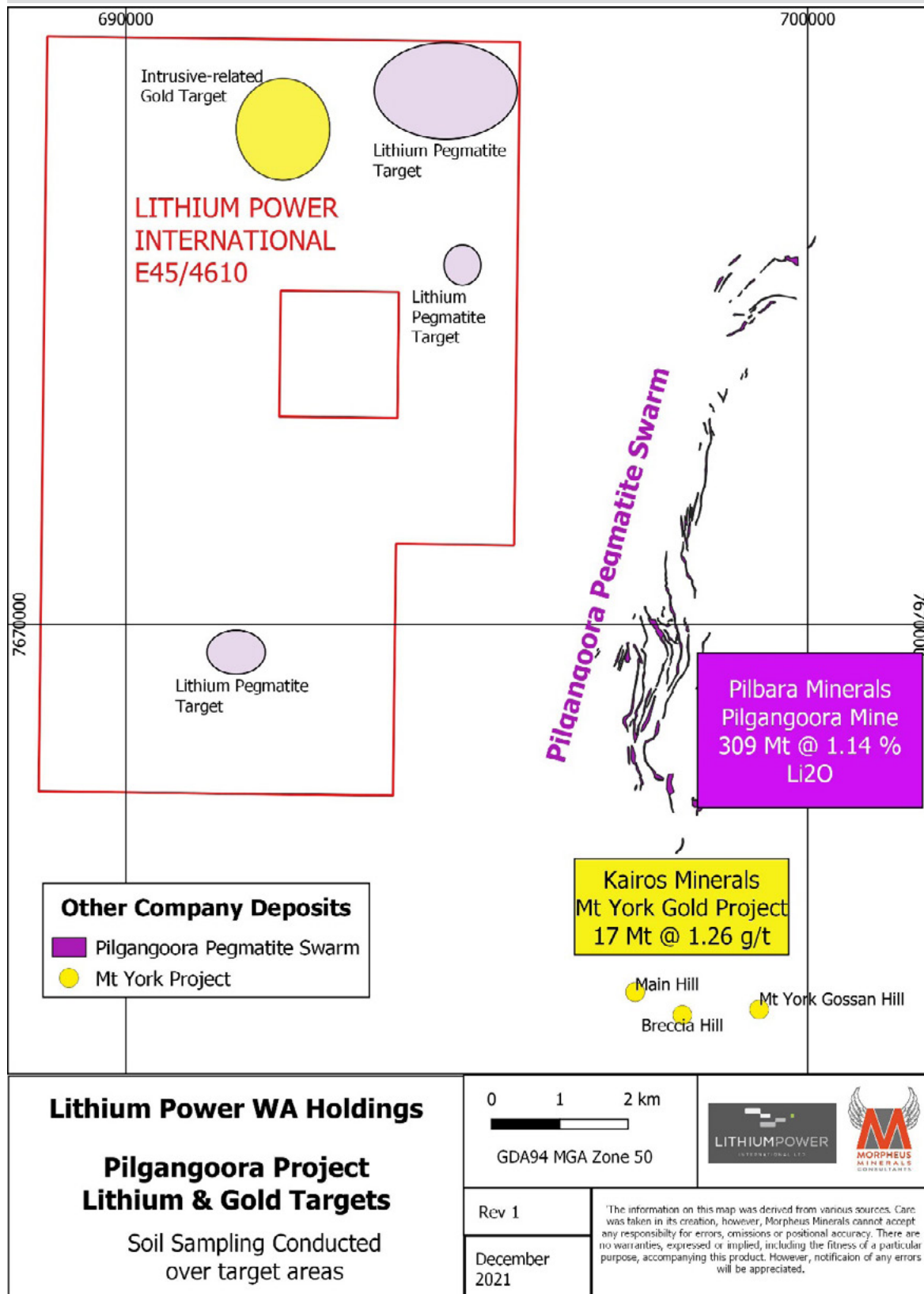


Figure 8: Soil Sampling conducted in 2021 over the Pilgangoora Project; samples currently at the laboratory being analysed



CORPORATE UPDATE

APPENDIX 5B

The Appendix 5B quarterly cashflow report for the quarter ended 31 December 2021, is submitted separately.

The Company had a cash balance of A\$15.4m as of 31 December 2021.

This amount is currently held in the Company's bank accounts in Australia and Chile in Australian dollars or US dollars. The Australian dollar equivalents were calculated using the closing foreign exchange spot rate on 31 December 2021.

The major movement in cash for the period was the receipt of A\$1m for the settlement and completion of the sale of the Argentina tenements.

Total funds within the Maricunga Joint Venture at the end of the quarter totalled US\$676k.

PAYMENTS TO RELATED PARTIES OF THE COMPANY AND THEIR ASSOCIATES

Section 6.1 Appendix 5B description of payments to related parties of the Company.

Directors Fees	\$228,000	Three months' salary and superannuation paid to the Australian-based Directors via the company payroll. Plus the Chile-based Directors paid via invoice through LPI's Chilean subsidiary
DHJPLM Pty Ltd Rental for Sydney Office	\$36,000	Mr Hannon is a Director and shareholder of DHJPM Pty Ltd
Total	\$264,000	

CHANGE IN THE BOARD OF DIRECTORS

Reccared (Ricky) Fertig resigned as a Director of the company during the quarter, along with being a LPI representative Director on the MSB Board. He also acted as Chairman of MSB. There is no intention to replace him on the board of LPI.

Richard Crookes has been appointed to the Board of MSB (joining Russell Barwick and Andrew Phillips as LPI representatives). Russell Barwick has been appointed Chairman of MSB.

The Board thanks Ricky for his five years' service to the Company.

ANNUAL GENERAL MEETING (AGM)

The Company's Annual General Meeting was held on an online platform at 10am on Thursday 25 November 2021.

The AGM had five resolutions for Shareholders to consider at the meeting

- Resolution 1 – Approval of the Remuneration Report for 30 June 2021.
- Resolution 2 – Approval of 10% Placement Facility.
- Resolution 3 – Re-election of David Hannon as Director.
- Resolution 4 – Re-election of Andrew Phillips as Director.
- Resolution 5 – Ratification of issue of Shares under the August 2021 placement.

All five Resolutions were passed by the Shareholders.

CAPITAL STRUCTURE

The Capital Structure at the end of the Quarter is as follows:

- 348.8m Ordinary Shares on issue;
- 0.75m Unlisted Options on issue; and
- 12.5m Share Appreciation Rights on Issue.

The changes from the previous quarter capital structure were:

- The cancellation of 6m Unlisted options.

DEMERGER OF LITHIUM POWER WA HOLDINGS PTY LTD

During the quarter LPI announced its intention to demerge its Western Australian hard rock lithium assets (the ‘**Demerger**’). The Demerger will create a dedicated, WA-focused lithium exploration company with the management team and resources to realise the value of the WA assets. The Demerger will enable LPI to focus its resources on developing its Maricunga Lithium Brine Project in Chile.

Demerger process and timeframe

LPI’s WA assets are currently held by a wholly owned subsidiary of LPI, Lithium Power WA Holdings Pty Ltd (**DemergeCo**).

The Demerger is intended to be undertaken via a capital reduction to affect an in-specie distribution of DemergeCo shares to LPI shareholders, pro rata to their shareholding in LPI, on a record date to be determined by the LPI Board. DemergeCo will apply for admission to the official list of ASX, and for quotation of its shares on ASX, in conjunction with the Demerger.

LPI expects the Demerger process to be completed in the first half of 2022, conditional on all necessary approvals having been obtained.

The Demerger is subject to, among other things, LPI shareholder approval. LPI expects to release a notice of meeting seeking to obtain this approval in the first quarter of CY2022. The notice of meeting will summarise the advantages and disadvantages of the Demerger and the key risk factors. It will also provide further information on the Demerger, including the key dates.

LPI will apply for a class ruling from the Australian Tax Office to confirm that demerger relief is available pursuant to the *Income Tax Assessment Act 1997* (Cth). The Demerger is subject to a satisfactory ruling being received from the ATO regarding the tax implications for LPI shareholders, among other matters.

The Demerger is also subject to final approval from LPI’s board. LPI reserves the right to vary the proposed terms of, or not proceed with, the Demerger in its absolute discretion.

LPI is in the process of assembling a highly capable board and management team to run DemergeCo. Further updates and information on the Demerger and DemergeCo will be provided by LPI in due course.

MINING TENEMENTS HELD

The below table lists the mining tenement interests held by the Company at the end of the quarter ended 31 December 2021.

Changes from the previous quarter is the completion of the sale of the Centenario mining tenements in Argentina.

Location/ Permit Name	Permit/ Exploration Number	Registered Holder	Area In Hectares	Permit Term Expiry	Interest Contractual Right
Chile					
Maricunga, Chile Cocina – 10/27	Old Code (1932) 03201-2110-19	MSB / LPISPA	450	N/A	MSB 100% of which LPISPA owns 51.6%
Maricunga, Chile San Francisco – 1/10	Old Code (1932) 03201-0006-2	MSB / LPISPA	425	N/A	MSB 100% of which LPISPA owns 51.6%
Maricunga, Chile Despreciada – 6/7	Old Code (1932) 03201-0007-0	MSB / LPISPA	100	N/A	MSB 100% of which LPISPA owns 51.6%
Maricunga, Chile Salamina – 1/3	Old Code (1932) 03201-0005-4	MSB / LPISPA	150	N/A	MSB 100% of which LPISPA owns 51.6%
Maricunga, Chile Litio 1 – 1/29	New Code (1983) 03201-6516-4	MSB / LPISPA	131	N/A	MSB 100% of which LPISPA owns 51.6%
Maricunga, Chile Litio 2 – 1/30	New Code (1983) 0321-6517-2	MSB / LPISPA	143	N/A	MSB 100% of which LPISPA owns 51.6%
Maricunga, Chile Litio 3 – 1/30	New Code (1983) 03201-6518-0	MSB / LPISPA	286	N/A	MSB 100% of which LPISPA owns 51.6%
Maricunga, Chile Litio 4 – 1/60	New Code (1983) 03201-6519-9	MSB / LPISPA	300	NA	MSB 100% of which LPISPA owns 51.6%
Maricunga, Chile Litio 5 – 1/60	New Code (1983) 03201-6520-2	MSB / LPISPA	297	N/A	MSB 100% of which LPISPA owns 51.6%
Maricunga, Chile Litio 6 – 1/60	New Code (1983) 03201-6521-0	MSB / LPISPA	282	N/A	MSB 100% of which LPISPA owns 51.6%
Maricunga, Chile Blanco	New Code (1983) – N/A	MSB / LPISPA	1,800	N/A	MSB 100% of which LPISPA owns 51.6%
Maricunga, Chile Camp	New Code (1983) – N/A	MSB / LPISPA	100	N/A	MSB 100% of which LPISPA owns 51.6%
Australia					
WA Greenbushes Balingup	E70/4763	LPIWA	31,656	17/03/2026	100%
WA Greenbushes Brockman Hwy	E70/4774	LPIWA	8,346	21/03/2026	100%
WA Greenbushes Greenbushes	E01/0003	LPIWA	316	Application pending	100% (i)
WA East Pilbara Pilgangoora	E45/4610	LPIWA	7,500	17/10/2026	100% (ii)
WA East Pilbara Tabba Tabba	E45/4637	LPIWA	6,400	11/05/2022	100%
WA East Pilbara Strelley	E45/4638	Carnaby Resources Ltd	6,400	N/A	LPI retains all Li rights (iii)

Key:

MSB = Minera Salar Blanco SA

LPISPA = Lithium Power Inversiones SpA

LPIWA = Lithium Power WA Holdings Pty Ltd

Notes:

i. Tenement application submitted by the Company and has been confirmed verbally, however formal confirmation is pending.

ii. Tenement sold in July 2020 to Carnaby Resources Ltd, with the Company retaining all lithium rights.

The announcement has been approved by the Board of Directors.

For further information, please contact:

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