

# ASX: AGY

### Equity Research

### 6<sup>th</sup> October 2022

SPECULATIVE BUYShare Price\$0.3Valuation\$0.3Price Target\$1.3	880
Options (\$0.25, exp. 29 Oct 2022)38Options (\$0.7293, exp. 30 Jun 2025)Performance RightsMarket Capitalisation\$65Cash (30 Jun 2022)\$36DebtEnterprise Value\$65* Options conversion to potentially add \$12.by end of October 2022Board & Management:	369.4 5.5m* 1.2m 6.5m 91.5m 6.0m* Nil 55.5m 2m cash nairman Director Director
Andrea Betti Company Se Pablo Alurralde President Puna Mini Major Shareholders: Top 20 Board and Management	
	\$0.70 \$0.60
50 — Li <sub>2</sub> CO <sub>3</sub> US\$50,000/t	- \$0.50
40 Li <sub>2</sub> CO <sub>3</sub> US\$40,000/t	\$0.40
30 20 Li <sub>2</sub> CO <sub>3</sub> US\$20,000/t	— \$0.30 — \$0.20
10 Li <sub>2</sub> CO <sub>3</sub> US\$10.000/t	\$0.10
Jul Sep Nov Jan Mar May Jul Sep AGY Trading Volume (LHS, millions AGY Share Price (RHS) US\$ Lithium Carbonate Price	) )

Argosy Minerals Limited (ASX: AGY) is an Australian company with a current 77.5% (and ultimate 90%) interest in the Rincon Lithium Project in Salta Province, Argentina and a 100% interest in the Tonopah Lithium Project in Nevada, USA.

AGY is focused on its flagship Rincon Lithium Project, located within the world renowned "Lithium Triangle", host to the world's largest lithium resources. AGY is following a staged development approach for the production of battery-grade lithium carbonate product.

# **Argosy Minerals Limited**

### New Producer to Benefit from Surging Lithium Prices

**Update:** thanks to surging lithium products' prices and the construction of the 2,000 tpa lithium carbonate production operation, AGY share price has reached our valuation of \$0.60 dated 14<sup>th</sup> March 2022. In parallel, AGY is now part of the ASX300 index (from 19<sup>th</sup> Sep 2022).

**2,000 tpa operation:** as at 1<sup>st</sup> Sep 2022, the project development works are 95% complete, with first product targeted in October. The development works continue to be on budget but experienced some slight delays.

**Significantly de-risked project:** through its industrial-scale pilot plant, AGY has produced 30 tonnes of battery quality lithium carbonate (>99.5% Li<sub>2</sub>CO<sub>3</sub>) over two years and sold 25 tonnes to North Asian customers.

**Producer status:** AGY is on track to become only the second lithium carbonate producer listed on the ASX after Allkem Limited (ASX: AKE).

Additional 10,000 tpa expansion: further to the PEA released November 2018, we have increased the estimated capex from US\$140.9 million to US\$200m and the estimated opex from US\$4,645/tonne to US\$8,000/tonne. The expansion is targeted to start construction in 2023.

**Lithium carbonate pricing:** the sector has experienced a tremendous uplift in lithium product prices over the last couple of years. In parallel, inflation is back in force affecting both capex and opex (3% p.a. assumed for opex).

**Mineral resource:** the drainable brine mineral resource estimate from the aquifer stands at 144 million cubic meters at a grade of 325 mg/L for 245,120 tonnes  $Li_2CO_3$ . Based on this resource, we modelled a 16-year mine life Base Case, ramping up according to the following production schedule:

Year	2022	2023	2024	2025	2026	2027 & beyond
Production	200 t	2,000 t	2,000 t	10,000 t	12,000 t	12,000 t

**Exploration target:** estimates the potential for a range of up to 507,000 tonnes to 724,000 tonnes of contained lithium carbonate to a depth of 300m. On this basis, we modelled an Expanded Case with a 30-year LOM.

**Ownership:** AGY currently has a 77.5% interest in the Rincon Lithium Project, increasing to 90% ownership upon development of the 10,000 tpa operation. **Rincon project valuation**: using various Li<sub>2</sub>CO<sub>3</sub> prices:

Scenario / Item					banded Case to 25,000 tpa
Capex		US\$200m		+US\$260m	
Li <sub>2</sub> CO <sub>3</sub> Price	NPV <sub>10%</sub> post tax	IRR post tax	NPV <sub>10%</sub> post tax	IRR post tax	
US\$25,000/t	US\$570m	53%	US\$956m	53%	
S&P (~US\$30,000/t)	US\$891m	72%	US\$1,558m	73%	
US\$35,000/t	US\$1,097m	84%	US\$1,946m	84%	
US\$42,000/t *	US\$1,466m	105%	US\$2,639m	106%	

Source: Evolution Capital estimates. \* current price

**Tonopah lithium project:** Exploration and development activities should bring considerable value given the highly strategic location 4km from Albermarle (NYSE: ALB) Silver Peak brine operation and ~300km from Nevada's Tesla Gigafactory.

**News flow**: Beyond the ramp-up of the Rincon production, we see the financing of the 10,000 tpa expansion as one of the key catalysts for further share price appreciation in the medium term. AGY aims to secure most of the financing through strategic investment and prepayments linked to off-take arrangements. At this time, we have assumed a A\$100m debt financing with 5-year maturity, 12% interest rate, 5 equal repayments of \$25m.

**AGY valuation**: Considering the above parameters and an equity capital raising of A\$30m at \$0.60 (50m shares), our Base Case valuation stands at \$1,332m or \$0.88 per share (previously \$0.60). Our speculative value stands at A\$2,004m or \$1.32 per share (previously \$1.35) for the Expanded Case.

### Argosy Minerals Ltd (ASX: AGY) Financial Summary Base Case: up to 12,000 tpa Li<sub>2</sub>CO<sub>3</sub> for 16 years

EVOLUTION

CAPITAL

Key metrics						Financial Statements
Market Information			Unit		Value	Profit & Loss (A\$m)
Number of Issued Shares			million		1,369.2	Revenue
Unlisted Options (@ \$0.25, exp	oiry 29 Oct 2022	')	million		35.5	Operating Costs
Unlisted Options (@ \$0.73, exp	•		million		1.2	Royalties
Performance Rights			million		6.5	Overhead Costs
Fully Diluted			million		1,412.4	Other Income/Costs
Share Price			A\$		0.505	EBITDA
12 month High-Low			A\$	0.	175 - 0.610	Depreciation
Market Capitalisation			A\$m		691.5	Net Interest
Cash (30 Jun 2022)			A\$m		36.0	Tax and Other
Debt (30 Jun 2022)			A\$m		0.0	Profit
Entreprise Value			A\$m		655.5	
•						Cash Flow (A\$m)
Financing Assumptions			Unit		Value	Net Profit
Exercise of Options over H2 20	022		A\$m		12.2	+/- Adjustments
New Equity (50 million shares	@ \$0.60)		A\$m		30.0	+/- Working Capital
Number of Issued Shares Post			million		1,512.4	+/- Other
New Debt (A\$100m, 1 years g	grace, 5 years m	naturity, 12%	s interest ra	te,		Cash Flow from Operations
	ual principal rep					Net Capital Expenditure
			· · · · · · · · · · · · · · · · · · ·			Cash Flow from Investing
Indicated Mineral Resource I	Estimate					Net proceeds from Debt
	Dr	ainable Brir	ne Volume	Li	Li <sub>2</sub> CO <sub>3</sub>	Changes in Share Capital
announced 13 Nov 2018			Mm <sup>3</sup>	mg/L	tonnes	Dividends
Rincon Lithium Project			144	325	245,120	Other Financing Casfhlow
						Cash Flow from Financing
Exploration Target						Net Cash Change
	Li <sub>2</sub> CO <sub>3</sub>			Li <sub>2</sub> CO <sub>3</sub>		
To a depth of 300m	tonnes			tonnes		Balance Sheet (A\$m)
Potential range from	507,000		to	724,000		Cash
						Other Current Assets
Li <sub>2</sub> CO <sub>3</sub> Production	Total	2022F	2023F	2024F	2025F	Total Current Assets
in tonnes		200	2,000	2,000	10,000	Property, Plant & Equipme
Total over 16 years	158,200					Exploration, Evaluation & [
						Non-Current Assets
Lithium Pricing (US\$/t Li <sub>2</sub> CO <sub>3</sub> )	2021 A	2022YTD	2023F	2024F	2025F	Total Non-Current Assets
Low Case	\$13,313	\$25,000	\$25,000	\$25,000	\$25,000	Total Assets
Base Case (S&P forecast)	\$13,313	\$42,423	\$32,856	\$30,367	\$30,824	Equity
High Case	\$13,313	\$35,000	\$35,000	\$35,000	\$35,000	Reserves
Current Price			\$42,000	\$42,000	\$42,000	Retained Earnings
						Total Equity
FX Assumption	2021 A	2022YTD	2023F	2024F	2025F	Current Debt
AUD/USD Exchange Rate	0.75	0.71	0.70	0.70	0.70	Account Payables
						Other Liabilities
<b>Rincon Project Valuation</b>	Li <sub>2</sub> CO <sub>3</sub> (US\$/†	1)	NPV Pc	st-Tax @ 10%	IRR	<b>Total Current Liabilities</b>
Low Case	\$25,000			US\$570m	53%	Lease Liabilities
Base Case	as above			US\$891m	72%	Non-current Debt
High Case	\$35,000			US\$1,097m	84%	Total Non-current Liabilities
Current Price	\$42,000			US\$1,466m	105%	Total Liabilities
						Total Equity + Liabilities
AGY Sum of the Parts Valuation	on		A\$m		Per Share	
Rincon Project (77.5% interest	t, 80% risked NP	√)	788.9		\$0.52	Profitability indicators
Upside (25,000 tpa, 90% inter	est, 50% risked N	IPV)	516.4		\$0.34	EBITDA margin
Cash			36.0		\$0.02	Liquidity
Exercise of Options over H2 20	022		12.2		\$0.01	Quick Ratio
Capex spent to complete 2,0			(6.0)		(\$0.00)	Current Ratio
New Equity			30.0		\$0.02	Capital structure
New Debt			(100.0)		(\$0.07)	Equity ratio
Tonopah Project (100%)			70.0		\$0.05	Debt / Assets
Corporate Costs			(15.0)		(\$0.01)	Debt / EBITDA
Base Case Valuation			1,332.5		\$0.88	DSCR
			.,502.0		+0.00	

Financial Year ending 31 December Profit & Loss (A\$m) 2021A 2022F 2023F 2024F 2025F 12.3 86.8 440.3 0.1 93.9 Revenue Operating Costs 3.3 (2.4)(24.2)(25.0)(128.6)Royalties 0.0 (0.4) (2.8) (2.6) (13.2) (1.3) (2.1) (2.2) (2.3) (2.4) Overhead Costs (0.0)(0.3) 0.0 0.0 0.0 Other Income/Costs EBITDA 2.1 7.3 64.6 56.9 296.1 Depreciation (0.0) (1.8) (28.6) (28.6) (28.6) Net Interest (0.0) (0.0) 0.0 (12.0) (12.0) ax and Other 2.1 (0.0)(4.7)(65.2)(6.6)rofit 41 54 29.5 11.7 190.3 Cash Flow (A\$m) 2021A 2023F 2025F 2022F 2024F 190.3 Net Profit 4.1 5.4 29.5 11.7 -/- Adjustments 0.1 1.8 28.6 40.6 40.6 /- Working Capital (59.9) 0.1 (2.3) (14.1) 1.6 -/- Other 13.8 37.3 (17.7)(6.3)0.4 Cash Flow from Operations (2.0)187 81.3 54.2 153.3 et Capital Expenditure (10.0) (18.0) (285.7) (6.4) (7.9) Cash Flow from Investing (10.0) (18.0) (285.7) (6.4) (7.9) Vet proceeds from Debt 0.0 100.0 (12.0)(37.0)Changes in Share Capital 34.1 32.4 30.0 0.0 0.0 0.0 0.0 0.0 Dividends 0.0 0.0 (0.1) (1.8) (23.4) 191.3 Other Financing Casthlow (2.0)32.1 154.3 Cash Flow from Financing 32.3 128.2 (35.4)Net Cash Change 20.1 33.0 (76.2) 12.4 299.7 alance Sheet (A\$m) 2021A 2022F 2023F 2024F 2025F Cash 23.1 56.1 (20.1)(7.7)292.0 Other Current Assets 0.1 3.3 26.0 24.2 123.1 Total Current Assets 23.2 59.4 5.9 16.5 415.0 Property, Plant & Equipment 0.0 16.2 273.3 251.2 230.6 Exploration, Evaluation & Dev. 3.0 3.0 3.0 3.0 3.0 Non-Current Assets 30.8 30.8 30.8 30.8 30.8 33.8 49.9 307.1 284.9 264.3 otal Non-Current Assets otal Assets 57.0 109.3 313.0 301.4 679.4 quity 121.2 153.5 181.7 181.7 181.7 Reserves 4.2 4.2 4.2 4.2 4.2 etained Earnings (68.6) (63.2) (33.6) (22.0)168.4 otal Equity 56.7 94.5 152.2 163.9 354.2 Current Deb 0.0 0.0 25.0 25.0 Account Payables 0.2 0.5 5.0 5.1 26.4 Other Liabilities 0.1 14.3 55.8 32.4 223.7 Total Current Liabilities 0.2 14.8 60.7 62.5 275.1 ease Liabilities 0.0 0.0 0.0 0.0 0.0 0.0 100.0 75.0 50.0 Non-current Debt 0.0 Total Non-current Liabilities 0.0 0.0 100.0 75.0 50.0 otal Liabilities 0.2 14.8 160.7 137.5 325.1 otal Equity + Liabilities 57.0 109.3 313.0 301.4 679.4 2025F Profitability indicators 2021A 2022F 2023F 2024F BITDA margin 59.8% 68.9% 65.6% 67.2% Liquidity 2021A 2022F 2023F 2024F 2025F Quick Ratio 0.6 6.4 4.8 0.7 2.2 Current Ratio 0.6 6.8 5.2 0.8 2.4 2021A 2022F 2023F 2024F 2025F Capital structure 2.1 0.6 0.6 0.3 Equity ratio 1.4 Debt / Assets 0.0 0.0 0.3 0.3 0.1 Debt / EBITDA 0.0 0.0 1.5 1.8 0.3 DSCR n/a n/a 5.4 1.5 8.7

Source: Evolution Capital estimates



### TABLE OF CONTENTS

1.	AGY Valuation	4
	Rincon NPV Valuation AGY Sum of the Parts Valuation Valuations Compared to Market Peers	4
2.	AGY Strategy	5
3.	Lithium Market Outlook	6
	Overview Price Forecast	
4.	Rincon Lithium Project	7
	Introduction Infrastructure and Logistics Mineral Resource Extraction Process Design Evaporation Ponds Lithium Carbonate Plant LCE Product Specification and Testing Taxation	7 8 9 9 9 9 9 9
5.	Tonopah Lithium Project	10
	Location Latest Exploration Activity	
6.	Directors & Management Team	
	Mal Randall, Non-Executive Chairman Jerko Zuvela, Managing Director Bruce McFadzean, Non-Executive Director Peter De Leo, Non-Executive Director Andrea Betti, Company Secretary	12 13 13
7.	Investment Risks	13

All currencies are in Australian dollars unless otherwise specified.

### 1. AGY Valuation

**Rincon NPV Valuation** 

Firstly, we have modeled a Base Case with the development of the Rincon Project according to the two stages set by AGY:

- 2,000 tpa battery quality lithium carbonate operation fully-funded and in construction (95% completed), first product from October 2022 and production operations from January 2023
- additional 10,000tpa Li<sub>2</sub>CO<sub>3</sub> permitting expected during Q4-2022?

Some of the estimated technical and financial parameters from the Preliminary Economic Assessment results (released in Nov 2018) for the expansion have been updated as follows:

- Capex of US\$141m increased to US\$200m (+42%)
- Opex of US\$4,645/t increased to US\$8,000/t (+72%)
- Opex increasing at a rate of 3% per annum

Secondly, we have modeled an Expanded Case assuming the conversion of part of the Exploration Target into a recoverable mineral resource extending the LOM to 30 years. A self-funded production expansion to 25,000 tpa Li<sub>2</sub>CO<sub>3</sub> reached in 2032 with an additional capex of US\$260m, based on 10,000 tpa capex increased by +30% (construction starting in 2028) is also assumed.

The significant increases in capex and opex amounts may be seen as overly conservative over time but tend to reflect the current inflationary environment.

Scenario / Item	Up	Base Case to 12,000 tpa			
Capex		US\$200m		+US\$260m	
Li <sub>2</sub> CO <sub>3</sub> Price	NPV <sub>10%</sub> post tax	IRR post tax	NPV <sub>10%</sub> post tax	IRR post tax	
US\$23,000/t flat	US\$570m	53%	US\$956m	53%	
S&P US\$30,000/t	US\$891m	72%	US\$1,558m	73%	
US\$35,000/t flat	US\$1,097m	84%	US\$1,946m	84%	
US\$42,000/t * flat	US\$1,466m	105%	US\$2,639m	123%	

### Table 1.1 - Rincon Project NPV Valuation

Source: Evolution Capital estimates. \* current price

AGY Sum of the Parts Valuation

Table 1.2 summarises the sum of the parts valuation for AGY.

Table 1.2 – AGY	Sum of the Parts	S Valuation
-----------------	------------------	-------------

Asset	Value Range	Preferred	Per Share
Rincon project	US\$570m-\$1,466m	US\$891.0m	-
Rincon project (77.5% interest, 80% risk factor)		A\$788.9m	\$0.52
Upside (25,000 tpa, 90% interest, 50% risked NPV)	+US\$250m-US\$630m	\$516.4m	\$0.34
Cash		\$36.0m	\$0.02
Exercise of options over 2022		\$12.2m	\$0.01
Capex spent to complete 2,000 tpa plant		(\$6.0m)	(\$0.00)
New equity		\$30.0m	\$0.02
New debt		(\$100.0m)	(\$0.07)
Tonopah project (100%)	\$53m-\$109m	\$70.0m	\$0.05
Corporate costs		(\$15.0m)	(\$0.01)
Total		\$1,332.5m	\$0.88

Source: Evolution Capital estimates

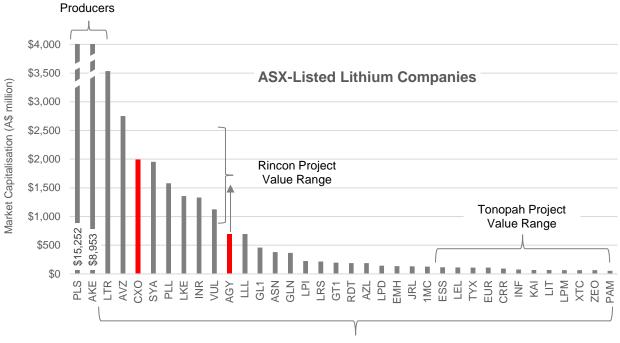
The valuation assumes a capital raising of 50 million shares at \$0.60 for A\$30 million to complement a debt funding assumed to be A\$100 million with 5-year maturity, 12% interest rate and 5 equal repayments of \$25 million over the period

2025-2028. No equity capital is a possibility if the funding through pre-payments linked to off-take arrangement is larger.

Valuations Compared to Market Peers

Figure 1.1 displays the current market value of ASX-listed lithium companies.





**Explorers & Developers** 

Source: Evolution Capital estimates. In red, AGY & CXO are two pre-production companies

Highlighted in red are Argosy Minerals Ltd (ASX: AGY) and Core Lithium Ltd (ASX: CXO). Both companies are at construction stage and should start production in Q4 2022.

Our valuation range for the Rincon project fits reasonably well with the current valuation of the most advanced Explorers & Developers. For the Tonopah project, we estimated a valuation range in line with the current market value of the early-stage lithium explorers.

### 2. AGY Strategy

Argosy is following a staged approach to de-risk the Rincon project and develop it using its proprietary clean lithium process technology:

- Industrial Scale Pilot Plant produced +30 tonnes of high purity battery quality (up to 99.94%) Li<sub>2</sub>CO<sub>3</sub> product to date
- 2. 2,000 tpa Operation same proven technology
- 3. 12,000 tpa Operation modular 10,000 tpa expansion from 2,000 tpa operation

Argosy's current strategy is targeting strategic and prepayment investment around off-take arrangements to form the basis for the 10,000tpa project expansion capex funding solution, with discussions to date focusing on a full funding package and no requirement for debt facilities.

### 3. Lithium Market Outlook

### Overview

After a few hiccups over the last 15 years or so, the lithium demand is now surging and it is difficult to see a downturn in the near future.

Figures 4.1 summarises very well the market outlook



Source: IEA analysis based on S&P Global (2021), visualising the Global Demand for Lithium

According to S&P Global the market is forecast to grow at a CAGR of 18.1% over that period.

### **Price Forecast**

In parallel, S&P Global expects the lithium prices to retrace some of the recent gains and stabilise at a higher level around the US\$30,000/t for lithium carbonate.

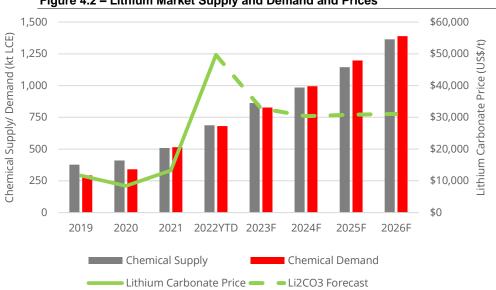


Figure 4.2 – Lithium Market Supply and Demand and Prices

Source: S&P Global Market Intelligence, as at September 2022

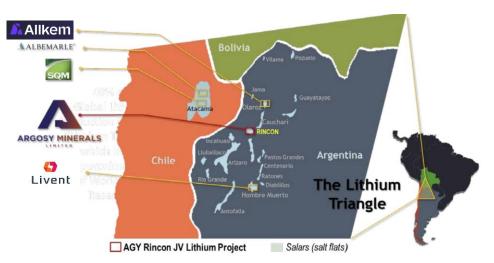
For our base case valuation, we use the S&P Global Market Intelligence price forecast.

### 4. Rincon Lithium Project

### Introduction

The flagship Rincon Lithium Project is located within the world renowned "Lithium Triangle", host to the world's largest lithium resources.

Figure 3.1 – Rincon Lithium Project Location Map



Source: AGY



Figure 3.2 – Rincon Lithium Project Tenement Map

Source: AGY

Infrastructure and Logistics

The Rincon Project area in the Salar del Rincón is in close proximity to existing utility and transportation infrastructure. It is serviced by all-seasons roads, electrical power, a natural gas pipeline terminus, and road and railway access to the Chilean port facilities of Antofagasta.



# Figure 3.3 – Infrastructure servicing the Salar del Rincon



### Source: AGY

The LCE product is expected to be produced at the project site, with such product to be packaged into 25kg bags or ~1 tonne bulka-bags, for ease of transport. This product will be freighted via road or rail (if available) in containers to the Antofagasta port facility in Chile, similar to Allkem (ASX: AKE) and Livent's (NYSE: LTHM) current LCE product operations in Argentina, and then shipped to Argosy's potential customers.

### Mineral Resource

Argosy has drilled 21 brine investigation bores to depths of up to 147 metres in the south-east of the Salar del Rincon. A sum total of 1,662 metres of drilling has been completed. The bores have an average spacing of 950 metres and comprise mineral exploration bores and test-production bores. Pumping tests and laboratory analysis on core have allowed determination of the hydraulic properties of the aquifer.

The bores have delineated an aquifer containing hypersaline brine with total dissolved solids ranging between 310mg/L and 350mg/L; the brine is enriched with respect to lithium. The aquifer sequence has a weighted mean average lithium concentration of 325mg/L, with a maximum recorded concentration of 490mg/L.

The aquifer contains hyper-saline brine with water levels essentially at ground surface. It is estimated that the aquifer sequence within the boundaries of the Rincon Lithium Project tenements (to a vertical depth of 102.5 metres), contains an Indicated Mineral Resource estimate of 245,120 tonnes of Li<sub>2</sub>CO<sub>3</sub>, which is based on specific yield/drainable brine volumes (refer to Table 3.1).

Aquifer Characteristics				Mineral Resource Characteristi			istics		
Unit	Description	Aquifer Volume	Average Thickness	Porosity	In-Situ Brine Volume	Specific Yield	Drainable Brine Volume	Li	Li <sub>2</sub> CO <sub>3</sub>
		(Mm <sup>3</sup> )	(m)	(%)	(Mm <sup>3</sup> )	(%)	(Mm <sup>3</sup> )	(mg/L)	т
S1	Fractured Halite	161	10	21%	33	10.4%	17	333.6	29772
S2	Clay	387	24	48%	185	3.0%	12	320.3	19892
S3A	Mixed Clastics	570	35	42%	240	11.6%	66	312.8	110493
S3B	Clay	76	5	41%	32	1.0%	1	333.1	1361
S3C	Black Sand	360	22	38%	138	13.2%	48	315.6	80442
S3D	Sand and Gravel	1	0	20%	0	10.0%	0	306.6	235
S4	<b>Competent Halite</b>	138	8	3%	4	1.0%	1	397.8	2926
	Total	1693	103		632		144	325	245120

### Table 3.1 – Rincon Project Indicated Mineral Resource Estimate

Notes: All mineral resource estimates are based on specific yield (i.e. drainable porosity) Indicated MRE is based on Specific Yield/Drainable Brine Volumes

Specific yield = "drainable porosity"

Drainable Brine volume = total volume of brine contained in "specific yield" Li (mg/L) = weighted mean average concentration per unit as derived from modelling

 $I_1(mg/L)$  = weighted mean average concentration per only as derived norm modeling  $I_2CO_3$  = tonnes of LCE dissolved in drainable brine volume (at conversion rate of 5.347)

Source: AGY

The brine aquifer is bounded in the south and east by colluvial and alluvial deposits formed from the erosional detritus from the surrounding outcrop. Fresh groundwater is likely to be associated with these, particularly the alluvial deposits where recharge may occur following rare stream flow events. The aquifer continues to the west and north across the salar and beyond the project's tenement boundary. Brine aquifer water levels are sustained by a combination of groundwater inflow from the surrounding geology and recharge from surface water runoff; the latter is likely to be small.

### Extraction

Nine pumping tests were completed at pumping rates ranging between 4L/s and 28L/s, for periods of 24 to 72 hours with water level declines of 1 metre to 9 metres. Pumping tests allowed determination of aquifer transmissivity and associated potential for brine- abstraction. The produced lithium concentration was consistent over the course of each pumping test and ranged between 299mg/L and 437mg/L between bores.

### Process Design

The detailed process flowsheet and design are commercially sensitive and confidential and have not been provided to its engineering firm, Primero. With the production of battery grade lithium carbonate from the industrial scale pilot plant, Argosy considers this exclusive chemical process technology is effectively proven to be utilised for future development stages at the Rincon Lithium Project.

### Evaporation Ponds

The brine is concentrated by solar evaporation to a suitable concentration such that the brine can be treated in the lithium carbonate production plant. Brine from the Salar aquifer is pumped from production wells to a series of evaporation ponds adjacent to the production facilities.

As the brine concentrates, salt is precipitated out and this also traps some of the lithium in the brine. Sodium and potassium levels decrease as the brine saturates and these elements precipitate out. Magnesium, sulphate and boron also decrease in concentration as the brine saturates, however a proportion of these elements also carry forward due to higher solubility and higher molecular weight.

### Lithium Carbonate Plant

A typical lithium carbonate plant includes several refinement stages which are required to achieve or exceed the minimum 99.5% Li<sub>2</sub>CO<sub>3</sub> concentrate specification targeted for battery grade lithium carbonate. The below information relates to typical processing routes.

The saturated lithium brine from the evaporation ponds requires magnesium, calcium and boron removal stages prior to carbonation.

Magnesium removal will be achieved through the addition of lime for magnesium hydroxide precipitation. Residual calcium in the brine will be precipitated as calcium carbonate with the addition of soda ash. Residual sulphate in the brine solution will be precipitated with barium chloride.

Boron removal will be achieved by solvent extraction and it is envisaged that this will be performed at low pH (acidic conditions) and result in an almost boron free brine.

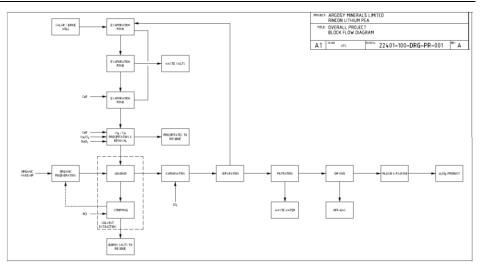
Lithium carbonate will be precipitated from the brine by temperature control and carbonation initially with soda ash and subsequently with carbon dioxide gas to produce a lithium bicarbonate intermediate before conversion to the higher purity battery grade lithium carbonate product.

A thickening and filtration stage is required for the separation of precipitated lithium carbonate. The dewatered lithium carbonate filter cake reports to a dryer, prior to milling and product packaging.



### The process flowsheet for the Rincon Project is outlined in Figure 3.4

### Figure 3.4 – Rincon Project Process Flowsheet



Source: AGY

LCE Product Specification and Testing

The Rincon Project is targeting production of 'battery quality' lithium carbonate, which is generally defined as a dry, free-flowing white powder, typically with minimum 99.5% Li<sub>2</sub>CO<sub>3</sub> by weight.

For future project development phases, further work may be required to define and confirm customer requirements and specifications for lithium carbonate product from the project as a basis to validate expected saleable prices and corresponding project economics.

Taxation

Taxable income from mining operations is subject to corporate income tax at the rate of between 25% to 35%.

### 5. Tonopah Lithium Project

### Location

The Tonopah Lithium Project is located within the Big Smokey Valley region in Nevada, USA, and comprises 425 claims covering an area of ~34.25km<sup>2</sup>.

The project benefits from high quality regional and site infrastructure. It is 40 minute drive from the regional mining centre of Tonopah, located 336km from Las Vegas and 380km from Reno, Nevada. It is also strategically located in tier-1 mining jurisdiction where one of Tesla's Gigafactory is operating at Sparks (immediately east of Reno).

The project is directly analogous to the neighbouring Silver Peak Lithium Mine deposit model, both geologically and structurally. The Silver Peak Lithium Mine is operated by Albermarle Corporation (NYSE: ALB). The mine is the only lithium carbonate producer in the USA and has been running for more than 50 years. In additional to lithium carbonate, Albermarle also produces special lithium hydroxide grades.

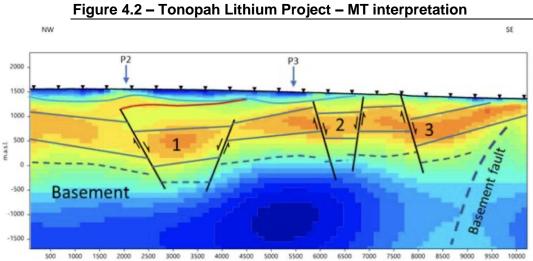


# Δ

### Figure 4.1 – Tonopah Lithium Project

Source: AGY, Evolution Capital

Latest Exploration Activity



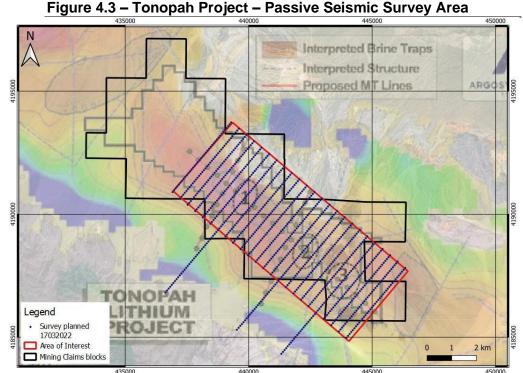
Source: AGY. 1, 2 and 3 are the MT targets

Argosy completed interpretation and analysis of the magneto-telluric (MT) resistivity survey data for Tonopah, with modelling works defining a major conductive anomaly - interpreted as a potential lithium brine aguifer, with depth to the top of this feature varying between 300m to 700m (along the profile).

The main anomaly identified three MT targets (refer Figure 4.2) that may constitute a closed basin with potential for lithium brine accumulation. Argosy has commenced preparation of next stage exploration targeting works to identify lithium brine prospectivity, and progress to drilling works to test the MT targets to determine the lithium brine potential at Tonopah.

In April 2022, AGY commenced passive seismic surveying works to progress further exploration works toward drilling. Argosy has contracted a Nevada-based geophysical contractor to carry out the passive seismic survey, covering a 400m survey line spacing and 100m station spacing along all transects, for a total of up to 993 survey stations covering the area of interest previously defined.

Upon completion of the survey work and data acquisition, the data will be processed to allow analysis and interpretation works to be conducted, including utilising the existing MT data set, to determine priority drill site target selection.



Source: AGY. Location of Passive Seismic Survey Area (overlaying MT targets)

Argosy is expecting the delineated MT targets to correlate very well with the passive seismic survey data and provide extra confidence for future drill testing works.

### 6. Directors & Management Team

### Mal Randall, Non-Executive Chairman

Mr Randall holds a Bachelor of Applied Chemistry and has more than 45 years' of extensive experience in corporate, management and marketing in the resources sector, including more than 25 years with the Rio Tinto group of companies. His experience has covered a diverse range of commodities including potash (brine), iron ore, base metals, uranium, mineral sands and coal. He has a proven track record in managing and supporting financial and corporate activities and this experience has afforded him significant exposure to the investment, broking and analyst community.

Mr Randall has held the position of chairman and director of a number of ASX listed companies, with current directorships including Ora Gold Limited, Hastings Technology Metals and Magnetite Mines Limited. Past directorships include Kalium Lakes Limited, Summit Resources Limited, Consolidated Minerals Limited, Titan Resources Limited, Northern Mining Limited, Iron Ore Holdings Limited, United Minerals Corporation NL and MZI Resources Limited.

### Jerko Zuvela, Managing Director

Jerko is a Chartered Professional Geologist having spent over 25 years in the mining and resources industry. Jerko has held executive management roles for private and public resources companies, with operational and corporate experience in various commodities covering exploration, project development, business development, finance, commercial and corporate activities involved with projects in Australia, Asia, Africa, North America and South America.

Jerko has considerable experience in building junior resources companies and understands the requirements working within this sector, including fundamental parameters, strategic drivers and market requirements within the junior resources industry. Jerko is currently a director of ASX listed Discovery Alaska Limited and Ragusa Minerals Limited. He is a Chartered Professional (Geology) Member of the Australasian Institute of Mining and Metallurgy and holds a Bachelor of Science in Applied Geology from Curtin University in Western Australia.

Bruce McFadzean, Non-Executive Director

Mr McFadzean is a qualified mining engineer with more than 40 years' experience in the global resources industry, and was recently the Managing Director of Sheffield Resources Limited. Mr McFadzean has led the financing, development and operation of several new mines around the world. Mr McFadzean's professional career includes 15 years with BHP Billiton and Rio Tinto in a variety of positions, and four years as Managing Director of successful ASX gold miner Catalpa Resources Limited. Under Mr McFadzean's management, Catalpa was involved in the merger to create Evolution Mining Limited.

Peter De Leo, Non-Executive Director

Mr De Leo is currently the Managing Director of Lycopodium Limited and has been with the organisation since 1994. Mr De Leo is a civil engineer with over 30 years' experience in engineering and construction within the resources and infrastructure sectors, and is a Fellow of the Institute of Engineers Australia. Mr De Leo possesses strong business management and project implementation skills, and has been responsible for the successful delivery of many of Lycopodium's pioneering and large scale projects. In his corporate roles he has led Lycopodium in shaping and reshaping as required to meet market needs and capitalise on opportunities.

Andrea Betti, Company Secretary

Andrea is an accounting and corporate governance professional with over 18 years experience in accounting, corporate governance, finance and corporate banking. She has a Bachelor of Commerce, Graduate Diploma in Corporate Governance, Graduate Diploma in Applied Finance and Investment and a Masters of Business Administration. Andrea Betti has served as Chief Financial Officer and Company Secretary for companies in the private and public sector, as well as senior executive roles in the banking and finance industry.

### 7. Investment Risks

AGY is exposed to a number of risks including:

- **Geological risk**: the actual characteristics of an ore deposit may differ significantly from initial interpretations.
- **Resource risk:** all resource estimates are expressions of judgement based on knowledge, experience and industry practice. Estimates, which were valid when originally calculated may alter significantly when new information or techniques become available. In addition, by their very nature, resource estimates are imprecise and depend to some extent on interpretations, which may prove to be inaccurate.
- **Commodity price risk:** the revenues AGY will derive mainly through the sale of lithium products exposing the potential income to metal price risk. The price of lithium fluctuate and is affected by many factors beyond the control of AGY. Such factors include supply and demand fluctuations, technological advancements and macro-economic factors.
- Exchange Rate risk: The revenue AGY derives from the sale of metal products exposes the potential income to exchange rate risk. International prices of lithium are denominated in United States dollars, whereas the financial reporting currency of AGY is the Australian dollar, exposing the company to the fluctuations and volatility of the

rate of exchange between the USD and the AUD as determined by international markets.

- **Mining risk:** A reduction in mine production would result in reduced revenue.
- **Processing risks:** A reduction in plant throughput would result in reduced revenue. In all processing plants, some metal is lost rather than reporting to the valuable product. If the recovery of metal is less than forecast, then revenue will be reduced.
- **Operational cost risk:** an increase in operating costs will reduce the profitability and free cash generation of the project.
- Management and labour risk: an experienced and skilled management team is essential to the successful development and operation of mining projects.

### Evolution Capital Pty Ltd

Level 6, 1 Castlereagh Street Sydney, NSW 2000 Tel: +61 2 8379 2958 www.eveq.com

### **Disclosure & Disclaimer**

Evolution Capital Pty Ltd (ACN 652 397 263) ("Evolution Capital") is a corporate Authorised Representative (number 1293314) of Amplus Global Pty Ltd (ACN 162 631 325), the holder of Australian Financial Services Licence number 505929.

The information contained in this report is only intended for the use of those persons who satisfy the Wholesale definition, pursuant to Section 761G and Section 761GA of the Corporations Act 2001 (Cth) ("the Act"). Persons accessing this information should consider whether they are wholesale clients in accordance with the Act before relying on any information contained

Any financial product advice provided in this report is general in nature. Any content in this report does not take into account the objectives, financial situation or needs of any person, or purport to be comprehensive or constitute investment advice and should not be relied upon as such. You should consult a professional adviser to help you form your own opinion of the information and on whether the information is suitable for your individual objectives and needs as an investor.

The content of this report does not constitute an offer by any representative of Evolution Capital to buy or sell any financial products or services. Accordingly, reliance should not be placed solely on the content of this report as the basis for making an investment, financial or other decision.

Recipients should not act on any report or recommendation issued by Evolution Capital without first consulting a professional advisor in order to ascertain whether the recommendation (if any) is appropriate, having regard to their investment objectives, financial situation and particular needs. Any opinions expressed are subject to change without notice and may not be updated by Evolution Capital. Evolution Capital believes the information contained in this report is correct. All information, opinions, conclusions and estimates that are provided are included with due care to their accuracy; however, no representation or warranty is made as to their accuracy, completeness, or reliability.

Evolution Capital disclaims all liability and responsibility for any direct or indirect loss, or damage, which may be incurred by any recipient through any information, omission, error, or inaccuracy contained within this report.

The views expressed in this report are those of the representative who wrote or authorised the report and no part of the compensation received by the representative is directly related to the inclusion of specific recommendations or opinions.

Evolution Capital and / or its associates may hold interests in the entities mentioned in any posted report or recommendation.

Evolution Capital, or its representatives, may have relationships with the companies mentioned in this report – for example, acting as corporate advisor, dealer, broker, or holder of principal positions. Evolution Capital and / or its representatives may also transact in those securities mentioned in the report, in a manner not consistent with recommendations made in the report.

Any recommendations or opinions stated in this report are done so based on assumptions made by Evolution Capital.

The information provided in this report and on which it is based may include projections and / or estimates which constitute forward-looking statements. These expressed beliefs of future performance, events, results, or returns may not eventuate and as such no guarantee of these future scenarios is given or implied by Evolution Capital. Any forward looking statements are subject to uncertainties and risks that may mean those forecasts made by Evolution Capital are materially different to actual events. As such, past performance is not an indicator of future performance.