

SPEC BUY

Current Price \$0.05
Target Price \$0.10

Ticker: EMX
Sector: Resources

Shares on Issue - pro-forma (m): 609.0
Market Cap (\$m): 26.2
Liquid Assets (\$m): 9.7
Enterprise Value (\$m): 16.5
Fully Funded EV (\$m): 81.5

52 wk High/Low: \$0.07 \$0.03
12m Av Daily Vol (m): 0.47

Mineral Resource

Mt	Zn+Pb %	Cont. Zn+Pb (kt)
3.9	7.7	346.0

Production Target (Zn Eq.) 30-40ktpa

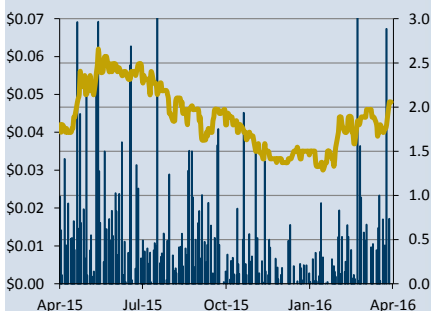
Directors

Alexander Burns	Executive Chairman
Kim Robinson	Managing Director
Max Cozijn	Finance Director
Marcello Cardaci	Non-executive Director

Substantial Shareholders

Alexander Burns	22.8%
Westoz Funds	5.3%

Share Price Graph



Friday, 22 April 2016

Energia Minerals

Gorno progresses to DFS

Analysts | Matthew Keane | Patrick Chang

Quick Read

Energia Minerals (EMX) announced a positive Scoping Study on the Gorno zinc/lead project in Italy. Subsequently, the Company has decided to progress to a Definitive Feasibility Study (DFS) which is expected to be completed late-2016. With \$10m in cash and liquid assets, EMX is funded to complete the required drilling, environmental permitting and metallurgical test work. Key to the BFS is the drill out of the lower Colonna Zorzone deposit to improve Resource confidence and enable detailed mine scheduling. Gorno benefits from extensive underground development with established access to unmined mineralisation in the high grade Zorzone and Fortuna mines. The project has near-term development potential with first production slated for H1 CY18. SPEC BUY maintained with a revised target price of \$0.10 (previously \$0.08).

Event & Impact | Positive

Positive scoping study: EMX reported a positive Scoping Study providing a green light to proceed to DFS, expected late-CY16. Argonaut's revised model derives a NPV₁₂ of \$63m and 42% IRR with a <2 year payback on development capex. Our model only incorporates the Colonna Zorzone orebody producing 30kt Zn and 7kt Pb per annum. Key assumptions include A\$65m development capex and US\$0.70-0.75/lb all in sustaining costs (previously A\$75m and US\$0.55/lb), generating average life of mine EBITDA of ~\$32mpa.

Optimisation leading into the BFS: The Scoping Study applied base case inputs with potential for substantial optimisation. Key upside exists from; the potential for ore sorting, mining optimisation, definition of higher grades, the incorporation of unmined Fortuna mineralisation and further exploration success. Metallurgical work is underway to test the viability of ore sorting which could decrease the volume of ore processed and reduce the scale of the plant, subsequently decreasing capex and opex. Critical to this BFS will be drilling of Inferred Resources in the lower zones of the Zorzone deposit. Higher Resource confidence will enable detailed mine scheduling and may result in a higher overall grade as the mid regions of the deposit appear to be diluted by lower grade fringes (see Figure 2, page 3)

Next steps: A 710m exploration decline is underway and drilling of the lower Zorzone deposit is due to commence in ~6 weeks. Results from ore sorting test work are due in coming weeks and environmental studies are underway with approvals expected late-CY16 to early-CY17. Assuming a positive BFS and successful off-take and finance negotiations, development should commence early-2017 with first production in H1 CY18.

Recommendation

Argonaut maintains a SPEC BUY recommendation with a revised target price of \$0.10 (previously \$0.08). Our price revision results from lower capex (development and sustaining) and higher grades in the earlier years of the mine life.

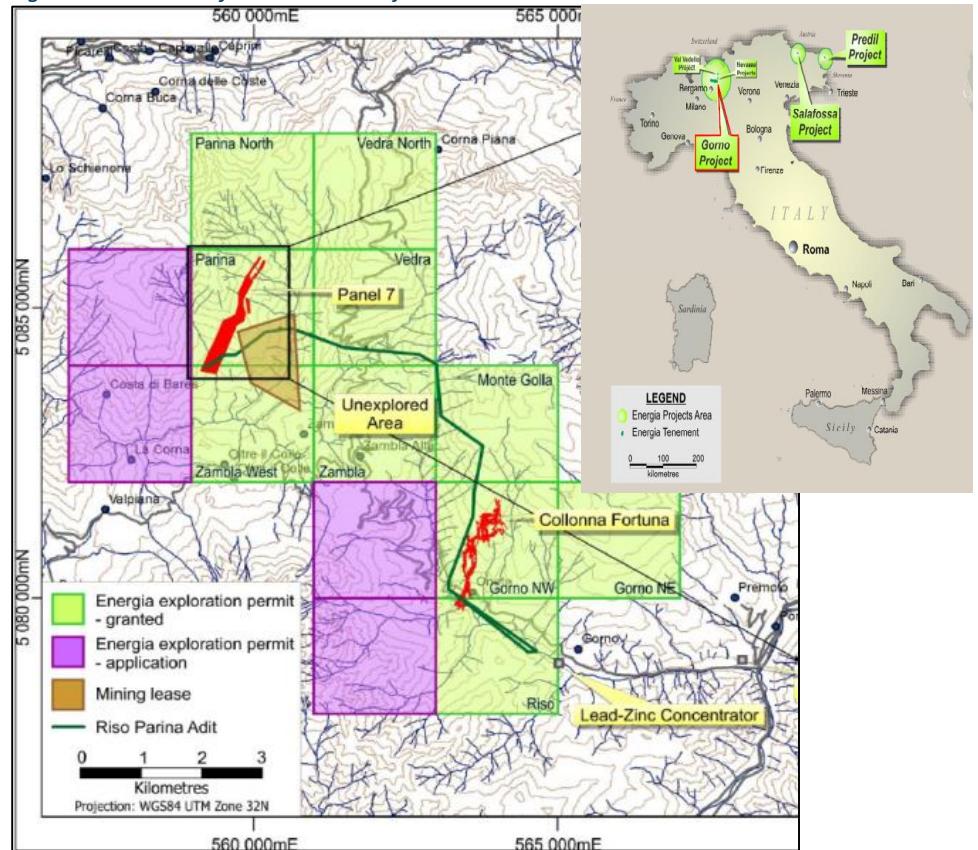
Project Overview

EMX's Gorno project is located in northern Italy...

The Gorno Zn/Pb project (100% EMX) is located in Northern Italy, in the Lombardia region near the regional centres of Bergamo and Milan. The project consists of a granted mining lease, ten granted base metal exploration licences and several licence applications. The Gorno region has recorded historic production of 6Mt @ 14.5% Zn Eq. EMX has an exploration target of 7-11Mt @ 7-10% Zn+Pb from two orebodies including Colonna Fortuna and Colonna Zorzone (note: Panel 7 in Figure 1 below is the unmined mineralisation of the Zorzone mine). The region contains up to 230km of underground development and Fortuna and Zorzone are linked to the historic processing plant near the town of Gorno by the 10km Riso Parina adit. A maiden Resource was recently release with 3.9Mt @ 6.1% Zn, 1.6% Pb and 25g/t Ag containing 238,000t Zn, 63,000t Pb and 3.1Moz Ag.

...and comprises historic two mines, including Colonna Zorzone and Colonna Fortuna...

Figure 1. Location of Gorno Zinc Project



Source: EMX

...with a maiden resource of 3.9kt @7.7% Zn+Pb at Zorzone

Positive Scoping Study

Energia Minerals (EMX) announced a positive Scoping Study on the Gorno project. Subsequently, the Company has decided to progress to a Definitive Feasibility Study (DFS) which is expected to be released late-2016.

Upside Potential in the Definitive Feasibility Study

After a positive Scoping Study, EMX is progressing to a DFS

Argonaut understands the Scoping Study applied base case inputs and excluded several opportunities with potential to greatly enhance project economics. Key upside exists from; the potential for ore sorting, mining optimisation, higher grades from ongoing Resource definition drilling, the incorporation of unmined Fortuna mineralisation and further exploration success.

We believe there is significant project upside from ore sorting...

Ore Sorting

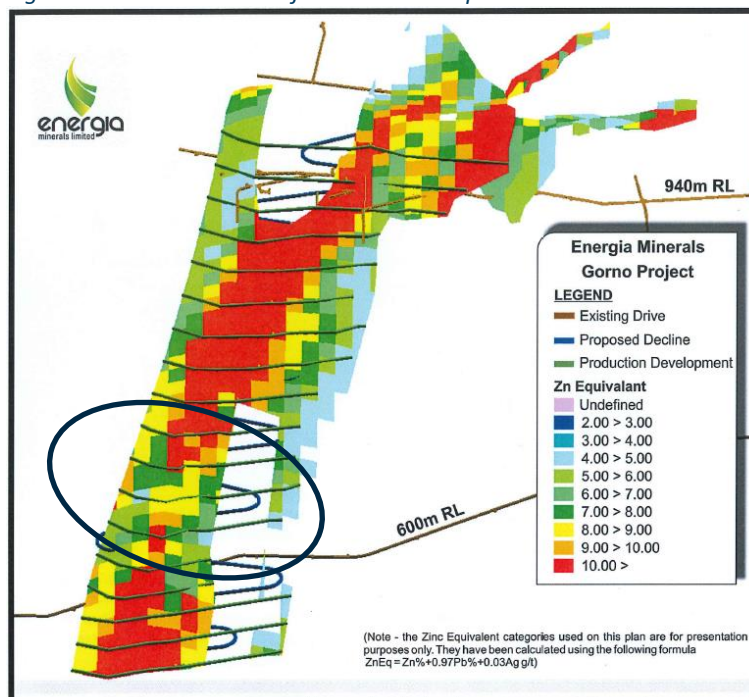
Metallurgical work is underway to test the viability of ore sorting (most likely on-belt XRD with jet air blasting) which could reject 30-50% of the mass with minimal loss of payable metals. Gorno is likely to be amenable to ore sorting due to a high density contrast of waste and mineralised rock. Under this scenario, ore would be migrated to the lower 600RL to be crushed, screened and passed through an ore sorter (all underground). Therefore, the volume of material to be hauled to surface and processed would be greatly reduced. The benefits of treating lower volumes of ore would be a smaller scale plant, lower consumables (power and reagents) and decreased tails, subsequently decreasing capex and opex.

...and grade upside from ongoing drilling...

Grade Upside

Argonaut see potential for continuation of higher grades defined at the top and bottom of the Resource through the mid-zone of the Zorzone deposit (circled in blue in Figure 2). It is likely that lower grades from the fringes of the deposit have diluted this area in the absence of adequate drill density. A decline is currently being constructed to facilitate drilling of the lower levels of the deposit. Drill positions are expected to be available in about six weeks and a Resource update is expected in Q3

Figure 2. Grade zonation of the Zorzone deposit



...with limited drilling in the lower zone of the Zorzone deposit

Source: EMX, edited by Argonaut

Argonaut expects both top down and bottom up mining of Zorzone

Optimised Mining

The Scoping Study was also based on top-down mining (scheduled this way to mine higher confidence Resources first). Once a higher degree of Resource confidence is attained, an optimised mining schedule will more likely involve a mix of bottom-up and top-down mining, greatly improving mining efficiency.

Fortuna and Exploration upside

Remnant mineralisation exists below the water table in the Colonna Fortuna mine and Argonaut believes there is a high probability of further undiscovered resources regionally. The Riso Parino adit, which was the historic access to Fortuna, runs through several areas proximal to the mineralised host Metalifero Formation.

Established underground infrastructure should enable rapid development...

Fast Tracking development

Gorno benefits from extensive established underground infrastructure enabling rapid development. Negotiations are underway with the local Government, the Regione Lombardia, to extend the Mining Concession (Mining Lease) to encompass the entire Zorzone Resource. Argonaut believes permitting will be the critical item to ensure first production in early CY18. Assuming a positive BFS and successful financing, developed should commence early-2017 with commissioning and first production in H1 CY18.

...and Argonaut sees permitting as a critical path item

Permitting

The major permits required are the VIA (Valutazione di Impatto Ambientale, Impact Assessment), essentially the Italian EIA equivalent, and an AIA ('Autorizzazione Integrata Ambientale', an Integrated Environmental Authorisation), which incorporates cultural and social approvals. It is expected that relevant documents will be submitted in Q3/Q4 2016 following base line studies, with anticipated approval in Q1 2017. The other key permit is a Plan of Works, submitted annually. All permits are submitted to the Regione Lombardia. EMX has employed consultant Studio Associato Hattusas to undertake environmental surveying and advisory.

We believe EMX may opt to refurbish the Riso Parina adit in the near-term...

Fast Tracking the Riso Parina Adit

We believe EMX may opt to reinstate access via the Riso Parina adit ahead of the BFS. This would expedite project development and allow exploration drilling from the lower 600RL. From this level, drills could target the lower levels of Zorzone and test for depth extensions. It could also enable exploration of remnant lower Fortuna mineralisation which is passed en route to the portal.

...which would enable drilling of the lower zones of Zorzone

Argonaut traversed a section of the adit from the Gorno portal confirming that access, for the most part, is in a good condition. The portal will require widening, stabilisation of a few minor roof failures and repair of rail footings. Steel rails remain in a good condition and the majority of the adit passes through excellent ground conditions. The expected rehabilitation cost of the adit is ~\$4.5m.

Valuation

Argonaut assumes A\$65m capex to develop Zorzone...

...and US\$0.70-0.75/lb all-in sustaining costs...

Argonaut's revised model assumes A\$65m development capex, \$22m life of mine sustaining capex and all-in sustaining costs of US\$0.70-0.75/lb (previously A\$0.65m, A\$35m and US\$0.55/lb respectively). Our capex assumptions include; adit refurbishment, exploration decline, construction of a 520ktpa concentrator plant (previous assumption 500ktpa) and initial stope development. We have reduced our mining inventory to ~4Mt (from 5Mt), in line with the recent maiden Resource. We recognise that life extension from the <550RL of Zorzone and from unmined Resources at Fortuna is probable. We have applied higher grades earlier in the mine life, recognising the potential for selective mining.

Table 1. Argonaut model summary

Year		2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Zn Price	US\$/t	2094	2425	2425	2205	2205	2205	2205	2205	2205	2205
Pb Price	US\$/t	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200
Ag Price	US\$/oz	16	16	16	15	15	15	15	15	15	15
AUD/USD	#	0.72	0.72	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70
Capex	A\$m	32.5	32.5	3.5	3.5	3.5	3.5	3.5	2.5	2.0	0.0
Mill Feed	Mt	0	0	330	520	520	520	520	520	520	400
Zn Grade	%			6.5%	6.5%	6.5%	6.3%	6.0%	5.8%	5.8%	5.8%
Pb Grade	%			2.0%	1.8%	1.5%	1.7%	1.8%	1.4%	1.4%	1.4%
Ag Grade	g/t			25	25	25	25	25	25	25	26
Zn Recovery	%	95%	95%	95%	95%	95%	95%	95%	95%	95%	95%
Pb Recovery	%	90%	90%	90%	90%	90%	90%	90%	90%	90%	90%
Ag Recovery	%	80%	80%	80%	80%	80%	80%	80%	80%	80%	80%
Zn in Concentrate	kt			20.4	32.1	32.1	31.1	30.1	29.6	29.6	20.9
Pb in Concentrate	kt			5.9	8.4	7.0	8.0	8.4	6.6	6.6	5.0
Ag in Concentrate	koz			208	328	328	328	328	328	328	201
Revenue	A\$m			49.4	70.8	70.8	68.6	66.4	65.3	65.3	46.1
Corporate Overheads	A\$m	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
Exploration	A\$m	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	0.0
EBITDA	A\$m			30.9	38.0	35.0	35.0	34.0	28.9	28.9	18.4
NPAT	A\$m	-8.5	-8.5	28.3	29.3	24.5	23.6	21.0	12.7	10.1	-2.5
Project Cash Flow	A\$m		-32.5	-7.7	28.2	26.3	26.5	26.1	23.0	24.6	16.4

Source: Argonaut

... generating ~A\$32mpa EBITDA

We derive a project NPV of A\$63m for Gorno...

Argonaut's forecast zinc prices are US\$0.95/lb from 2017-2018 and US\$1.00/lb long term. Steady state project level EBITDA is ~A\$32m from 37ktpa Zn Eq. production. We derive a project NPV of A\$63m with a 42% IRR. Our sum of parts DCF valuation is \$59.0m (\$0.10/sh), outlined in Table 2 below. We have assigned \$8m to exploration projects including Patterson Province Tenements (Western Australia), the Val Vedello Uranium Project (Italy) and the recently applied exploration leases over the historical zinc mines of Predil and Salafossa (Italy). EMX has 609m shares outstanding.

...and a revised NAV of \$0.10/sh (previously (\$0.08/sh)

Table 2. Argonaut valuation summary

Asset	A\$m	A\$/sh
Gorno Zn/Pb	63.0	0.10
PDN Equity	5.0	0.01
Exploration Assets	8.0	0.01
Corporate	-22.1	-0.04
Cash	5.2	0.01
Debt	0.0	0.00
Total	59.0	0.10

Source: Argonaut

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