

#### 29 April 2022

## MARCH 2022 QUARTERLY REPORT

Dome North lithium drilling to further improve the quality and confidence of the Resource completed with the next drill programme to grow the Resource starting in May

## HIGHLIGHTS

- **Pioneer Dome Lithium Project, WA**: Key operational activities during the Quarter were:
  - Completion of a diamond core drill (DD) programme aimed at improving the quality and confidence of the lithium Mineral Resource Estimate (MRE) by obtaining samples of near-surface (oxide/transition) mineralisation at both the Cade and Davy deposits and of fresh rock from Davy for bulk density measurements and for metallurgical test work.
  - Planning has been completed for the next drill programme aimed at growing the lithium MRE with drilling planned to start in the second half of May. The programme will consist of 22 Reverse Circulation + diamond tail (RCD) holes totalling 9,000m.
  - Assay batches from the air-core drill programme completed in January remain outstanding and are now expected in May. A report on all results will be finalised in June.
  - Baseline environmental survey report and hydrology report finalised during the Quarter.
- Juglah Dome Gold Project, WA: A 22-hole RC drill programme totalling 1,915 metres was completed during the Quarter with assays due by the end of May. Felsic porphyry with variable feldspar-pyrite alteration and quartz veining was observed in every drill line.
- **Closing cash** on hand as at 31 March 2022 was \$9.5 million.
- **POST QUARTER:** An unsolicited, confidential, non-binding indicative takeover proposal was received from a credible lithium industry participant to acquire 100% of the issued capital of Essential by way of an off-market takeover, however it was subsequently withdrawn in light of the recent upward trajectory in the trading price of Essential shares.

#### ASX Code: ESS

#### **Corporate Profile**

Shares on issue: 245,602,769 Listed Options: 21,424,829 (\$0.15 exercise: 30/11/22 expiry)

Cash: \$9.5m (31 Mar 2022) Debt: Nil

#### **KEY PROJECTS**

LITHIUM Pioneer Dome GOLD Golden Ridge GOLD Juglah Dome

#### Joint Ventures (ESS %)

2 x nickel projects (20-25%)\* 4 x gold projects (25-30%)\* \* Free carried to a decision to mine

#### **Corporate Directory**

Non-Executive Chairman Craig McGown

Non-Executive Directors Paul Payne Warren Hallam

Managing Director Timothy Spencer

**CFO & Company Secretary** Carl Travaglini

Exploration Manager Andrew Dunn

#### **Investor Relations**

Nicholas Read Read Corporate t: +61 8 9388 1474 e: nicholas@readcorporate.com.au

ABN: 44 103 423 981

t: +61 8 9322 6974 e: info@essmetals.com.au w: essmetals.com.au

Level 3, 46 Ord St West Perth, WA 6005 Australia PO Box 1787, West Perth, WA 6872 Australia



# **PIONEER DOME LITHIUM PROJECT**

The Pioneer Dome Project (ESS: 100%) is located in the heart of Western Australia's lithium corridor in the Eastern Goldfields, approximately 130km south of Kalgoorlie and 275km north of the Port of Esperance. A Mineral Resource of 11.2Mt @ 1.21% Li<sub>2</sub>O<sup>1</sup> has been defined at Dome North in the northern area of the Project.

The southern Yilgarn area is recognised as being well-endowed with spodumene deposits, including the Bald Hill Mine, the Mt Marion Mine and the Buldania Project. The world-class Greenbushes Deposit, the Mt Holland Mine and the Mt Cattlin Mine are located further west, south-west and south-south-west, respectively.

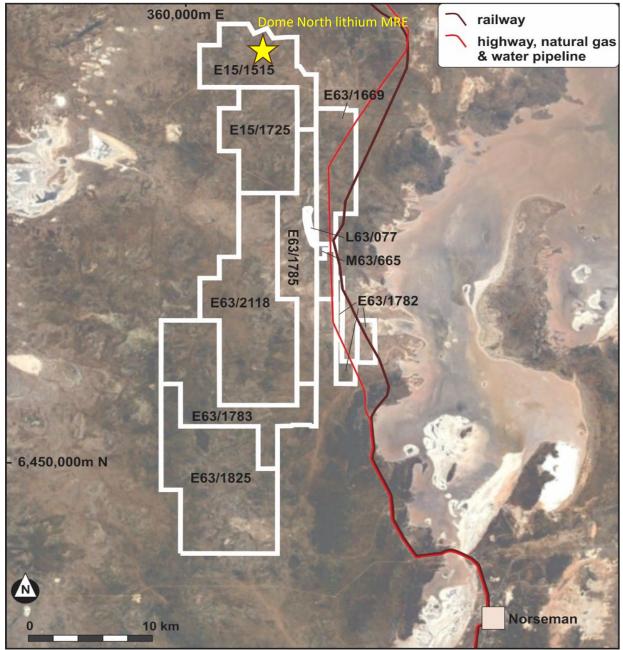


Figure 1 - The location of the tenements of the Pioneer Dome Lithium Project relative to major infrastructure.

<sup>1</sup> Refer ASX:ESS announcement 29 September 2020 – Dome North Resource upgrade



## DOME NORTH DIAMOND DRILL PROGRAMME COMPLETED<sup>2</sup>

#### HIGHLIGHTS:

- 13 DD holes drilled into the Cade and Davy deposits, totalling 909 metres.
- Assays are expected by the end of May
- Metallurgical test work to follow with results expected in September

This drilling was designed to build on the <u>previous results</u> announced on 15 October<sup>3</sup>, where four RC holes were drilled in the upper zone of the Cade Deposit returning broad high-grade intercepts, with highlights of:

- 21m @ 1.08% Li<sub>2</sub>O from surface (PDRC589)
- 24m @ 1.29% Li<sub>2</sub>O from surface (PDRC590)
- 15m @ 1.06% Li<sub>2</sub>O from 47m (PDRC591)
- 26m @ 1.46% Li<sub>2</sub>O from 51m (PDRC592)

Also, hole PDRC519, located at the southern end of the Davy deposit, returned encouraging assays of:

- 7m @ 1.02% Li<sub>2</sub>O from 21m, including 3m @ 1.44% Li<sub>2</sub>O; and
- 9m @ 0.62% Li₂O from 42m

The two main objectives of the diamond drilling programme are to:

- 1. Increase confidence in the Lithium Mineral Resource Estimate by converting a large part of the Davy deposit and areas across the upper zone of the Cade deposit from the Inferred to Indicated Resource categories by in-fill drilling and by measuring the bulk densities; and
- 2. Provide samples from drill core to conduct metallurgical test work with a focus on the upper zones of the Cade and the Davy deposits and the fresh rock zone of Davy.

The HQ triple tube (HQ3) diamond drill programme consisted of six holes drilled into the upper ~40 metres of the Cade Deposit and seven holes drilled into the Davy Deposit for a total of 909 metres.

At Cade, observations of the drill core indicated that while the metasediment host rock was strongly weathered, the upper portion of the pegmatite had visual spodumene with minimal weathering and the lower portion of the pegmatite was weak to moderately weathered depending on fracture density (Figure 2).



Figure 2 – Examples of drill core taken from the upper zone photo on left – Hole ID PDD596) and lower zone (photo on right – Hole ID PDD596) of the Cade Deposit.

<sup>&</sup>lt;sup>2</sup> Refer ASX:ESS announcement 25 February 2022– Pioneer Dome Lithium Project update - amended

<sup>&</sup>lt;sup>3</sup> Refer ASX:ESS announcement 15 October 2021 – High grade assay results from Cade Deposit



Seven diamond drill holes totalling 548 metres were drilled at Davy. The four holes drilled above fresh rock (PDD601 to 603 and PDD607) had weakly to strongly weathered pegmatite hosted in weathered ultramafic lithology. The three holes drilled into fresh rock (PDD604 to 606) intersected pegmatite with fine to coarse spodumene and minor lepidolite.

Deposit	Hole ID	Pegmatite zone	Spodumene zone		Comments		
		DHM	From (m)	DHM	Fresh	Weathered	
Cade	PDD595	36.23	10.6	22.10	93%	7%	Mostly fresh spodumene
Cade	PDD596	23.07	16.62	19.66	100%	0%	Small intervals of metasediments and weathered pegmatite.
Cade	PDD596	4.91	50.28	3.34	100%	0%	Second pegmatite in hole PDD596.
Cade	PDD597	24.03	18.95	21.15	37%	63%	Variable weathering observed
Cade	PDD598	29.70	14.31	13.79	72%	28%	Some weathering observed
Cade	PDD599	35.60	3.65	23.65	57%	43%	Variable weathering observed
Cade	PDD600	34.44	19.26	20.54	91%	9%	Mostly fresh spodumene
Cade	PDD600		45.96	6.39	43%	57%	Second zone of spodumene in hole PDD600.
Davy	PDD601	31.92	53.6	8.59	0%	100%	Weakly weathered
Davy	PDD601		66.0	11.35	0%	100%	Altered spodumene. Weakly weathered. Second zone.
Davy	PDD602	14.18	10.5	5.70	0%	100%	Moderate to strongly weathered pegmatite
Davy	PDD603	19.60	26.43	7.53	0%	100%	Weakly weathered. Spodumene with minor lepidolite
Davy	PDD604	11.55	99.96	10.34	100%	0%	Fine to coarse spodumene and minor lepidolite
Davy	PDD605	18.70	97.7	16.40	100%	0%	Fine to coarse spodumene and minor lepidolite
Davy	PDD606	11.59	73.7	6.00	100%	0%	Fine to coarse spodumene
Davy	PDD607	9.55	23.13	1.93	0%	100%	Moderately weathered pegmatite with spodumene and minor lepidolite

**Table 1** below provides a summary of the visual observations of the pegmatites in the drill core:

DHM= Down-Hole Metres. Fresh\*= no or minimal weathering in spodumene zone.

Refer to ASX:ESS announcement dated 25 February 2022 "Pioneer Dome Lithium Project update – amended" for further information on this drill programme.



## MAY 2022 PROPOSED DOME NORTH DIAMOND DRILL PROGRAMME<sup>4</sup>

HIGHLIGHTS

- ~9,000 metre RCD hole drill programme to commence before the end of May and take up to 2.5 months
- The objective of the programme is to grow MRE in size
- Assays will take a further 10-12 weeks.
- Following receipt of assays, a lithium MRE update shall be calculated and reported in the December Quarter.

Building on the recently completed drill programme, a review was conducted in February 2022 to investigate the impact of drilling below and along strike of the Dome North Lithium Mineral Resource. This review concluded that the most significant growth potential is likely to come from drilling deeper at the Cade deposit, with drilling along strike and at depth also expected to provide a better understanding of the upside potential at the Davy deposit.

The drill programme is designed to test the down-plunge extent of the mineralised envelopes, extending below the existing lower boundaries of the Mineral Resource for each deposit by approximately 250 metres (including Phase 3 as outlined below) for the Cade deposit and 100 metres for the Davy deposit.

In addition, the southern and northern strike extents of the Davy deposit will also be tested.

#### CADE DEPOSIT DRILL PLAN

The Mineral Resource Estimate (MRE) for the Cade deposit currently stands at<sup>2</sup>:

- Indicated: 5.4Mt @ 1.3% Li<sub>2</sub>O totalling 70,000 tonnes of Li<sub>2</sub>O or 173,120 tonnes of lithium carbonate equivalent (LCE).
- Inferred: 2.8Mt @ 1.18% Li<sub>2</sub>O totalling 33,000 tonnes of Li<sub>2</sub>O or 81,600 tonnes of LCE.
- Total Cade MRE: 8.2Mt @ 1.26% Li<sub>2</sub>O totalling 103,000 tonnes Li<sub>2</sub>O or 254,720 tonnes of LCE.

The aim of this drilling is to extend the Inferred material in the Mineral Resource at depth. The Phase 1 holes are planned to intersect the deposit at a depth approximately 100 - 200 metres below the lower boundary of the current Mineral Resource, so that a high-level assessment can be conducted on the potential for underground mining, should it be sufficiently lithium enriched.

#### Phase 1

Up to eight RC pre-collared holes with diamond tails (RCD holes) for 4,360 metres are proposed to define the thicker and higher grade spodumene zone at depth (see Figure 1 for the planned pierce points). Drilling is proposed to start with holes in the middle of the apparent north-plunging zone as defined by the highest accumulation of lithia (drill intersection width x  $Li_2O$  grade) and then continue both north and south at the same depth with the step-out guided by the geological observations of the previously drilled holes.

#### Phase 2

An extra two RCD holes for 880 metres are planned up-dip of the Phase 1 holes to help confirm the continuity of mineralisation (Figure 3). The location of these holes will be dependent on the geological observations from the Phase 1 drilling.

<sup>&</sup>lt;sup>4</sup> Refer ASX:ESS announcement 31 March 2022 – Pioneer Dome - next drilling



#### Phase 3

One RCD hole for ~ 640 metres will be drilled ~90 metres down-dip of the Phase 1 drilling to confirm the continuity of the spodumene-bearing pegmatite at depth. The location of this hole will be dependent on geological observations from holes in Phase 1 and Phase 2.

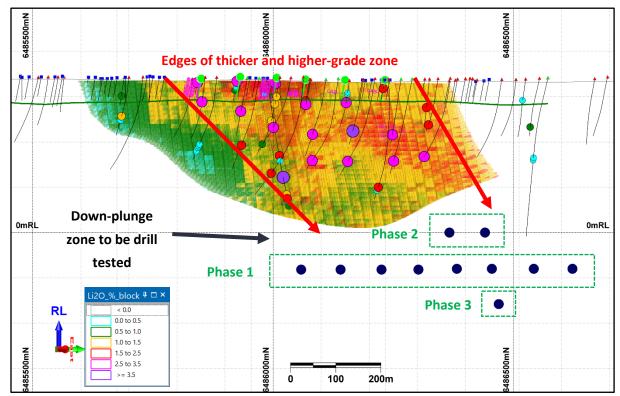


Figure 3 – Long-section of Cade with the Mineral Resource (coloured by grade - see legend), drill traces, Li<sub>2</sub>O intersections (coloured dots) and the pierce points of proposed deeper drilling. The interpreted high grade shoot is shown with red arrows.

#### DAVY DEPOSIT DRILL PLAN

The Mineral Resource Estimate (MRE) for the Davy deposit currently stands at<sup>2</sup>:

• Total Davy MRE (all Inferred): 2.3Mt @ 1.13% Li<sub>2</sub>O totalling 25,000 tonnes of Li<sub>2</sub>O or 61,825 tonnes of LCE.

#### Davy Depth Extent

A total of three holes on nominal 80 metre spacing are planned beneath the current Mineral Resource, where the pegmatite appears to be open at depth.



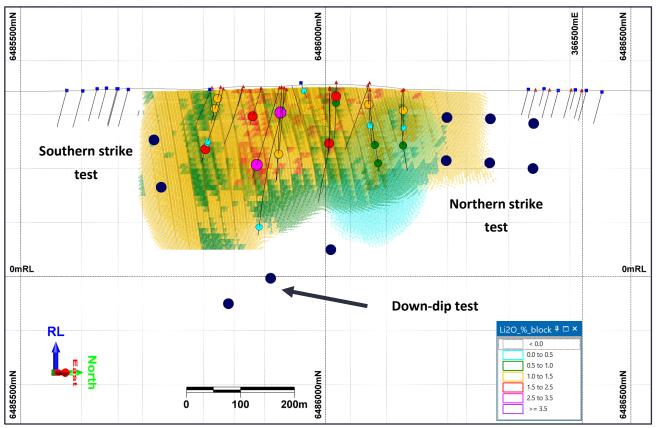


Figure 4 – Long-section of Davy with September 2020 MRE (coloured by grade - see legend), drill traces of previous drilling with Li<sub>2</sub>O intersection >0.5% (coloured dots) and proposed Davy drilling (dark blue circles representing planned drill pierce points).

#### Davy Northern Strike Extent

Potential remains at Davy for the defined pegmatites to thicken to the north, in line with the observations of a similar setting at Cade. Three lines of drilling on nominal 80 metre spacing have been planned to test this area of the Mineral Resource (Figure 4).

#### Davy Southern Strike Extent

Due to the significant steepening of the pegmatite, it is possible that the previous shallow drilling missed the target. Two RC holes for 500 metres have been planned 80 metres south of the southernmost known position to test either for a sub-vertical or steep north-east dipping pegmatite, assuming it is consistent with the strike of the Davy deposit.

The drill programme is expected to commence before the end of May and take up to 2.5 months to complete (targeting ~end-July), assuming one-shift per day and all planned holes are drilled. Assays are expected to then take 10-12 weeks (~October), subject to laboratory workloads.

Refer to ASX:ESS announcement dated 31 March 2022 "Pioneer Dome - next drilling" for further information on this drill programme.

By October, the Company expects to be able to commence an updated lithium Mineral Resource Estimate, which together with the metallurgical test work results, will underpin a Scoping Study targeted for completion during Q4 2022. This in turn is expected to pave the way for a Feasibility Study commencing in early 2023.



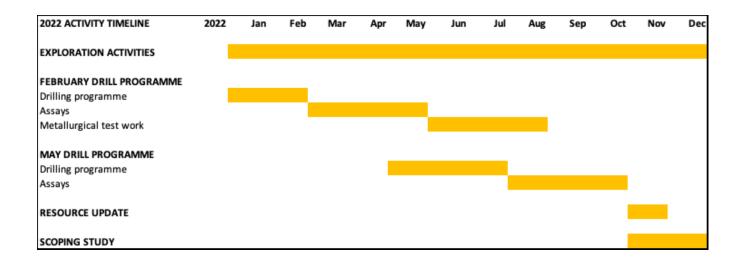
### STEPS TOWARDS BEING DEVELOPMENT READY

Steps are being taken to transition the Dome North Resource area to a 'development ready' status. These steps include:

- A flora and fauna study was completed and no material issues were identified;
- A hydrology study has been completed and multiple potential water sources have been identified;
- Additional metallurgical test work, focussed on the upper zone of Cade deposit and on the Davy deposit is planned to be completed by the end of July to complement previous successful test work on Cade;
- A mining agreement is in place with NNTAC, the representative body of the Ngadju people, the custodians of the land on which the project is located; and
- A mining lease application will be lodged at the appropriate time during 2022.

The Dome North lithium Mineral Resource remains the only Australian lithium Mineral Resource not yet subject to an offtake commitment.

The Company is presently engaged in ongoing discussions with various local and international lithium participants interested in off-take and/or investment. The Company cautions that it is not party to any binding agreements with respect to the aforementioned discussions and that an investment decision should not be made on the basis of these discussions. There can be no certainty that any binding agreement or agreements will eventuate. The Company will keep shareholders updated as to any material developments, cautioning that at the current time all discussions are preliminary and incomplete.



#### **OTHER EXPLORATION ACTIVITIES**

An air-core drilling programme was completed in January, testing early-stage targets located in the southern and central area of the Pioneer Dome Project and testing two targets in and around the Dome North lithium Mineral Resource.

The two targets tested in the vicinity of the Dome North MRE were each tested with two lines of drilling, totalling 29 holes and 1,389 metres with an average depth of 48 metres. It was anticipated that 2,320 metres would be drilled to test these targets, however the air-core hammer penetration for the holes around the Heller deposit was limited. No in situ pegmatites were observed in this drilling, however, large muscovite



flakes were noted in several holes from the Davy to Cade area and in the Heller NE area. These were all interpreted to be transported pegmatitic material that has subsequently been weathered.

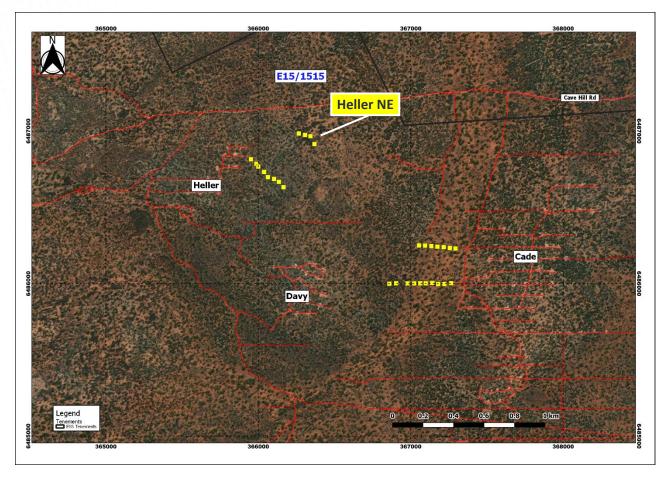


Figure 5 – Dome North air-core follow up programme with drill collars shown by the yellow squares.

Elsewhere, the programme was conducted across various lithium, gold and nickel early-stage targets in the south, east and central areas of the Pioneer Dome Project. A total of 72 air-core holes were drilled totalling 3,000 metres with nine holes intersecting a quartz-rich pegmatite. Lithium minerals were not visible in any of the pegmatite intersections.

A full report will be compiled once all assay results are received.

## **GOLDEN RIDGE GOLD PROJECT**

The Golden Ridge Gold Project (ESS: 100% Au) is located 20km south-east of Kalgoorlie and is highly prospective for gold and nickel mineralisation. The Project lies within the well-endowed Menzies-Boorara Shear Zone that hosts the Paddington, Boorara and Golden Ridge Deposits. Exploration at the Project has identified multiple highly prospective gold and nickel targets.

No significant gold exploration activities were undertaken during the Quarter.



# JUGLAH DOME GOLD PROJECT

The Juglah Dome Project (ESS: 100%) is located ~60km east-southeast of Kalgoorlie and is highly prospective for gold mineralisation. Exploration by previous owners identified multiple gold targets using soil geochemistry and drilling. The Project lies in a similar geological setting to the Majestic and Imperial Deposits, located 10km to the north-west, and the Daisy Complex to the west, which forms part of Silver Lake Resources Limited's Mt Monger Operations.

Detailed geological interpretation was completed on previous holes at Juglah Dome with the objective of understanding the extension of the Gards felsic porphyry beneath transported cover to the south-east.

A total of 22 RC drill holes totalling 1,915 metres were completed at the end of March. The objective of the programme was to test the full thickness of the felsic porphyry and gold mineralisation identified in previous air-core drilling. The drill programme targeted in between existing drill lines and a further 400 metres of strike to the south-east.

Initial observations indicate the felsic porphyry was intersected in every drill line and often accompanied by feldspar-pyrite alteration and variable quartz veining. Assays are expected by end-May.

## JOINT VENTURE INTERESTS

Essential Metals has a portfolio of minority (20%-30%) free-carried interests in four gold and two nickel joint ventures located in Western Australia.

#### Acra Gold Joint Venture Eastern Goldfields WA

#### ESS 25% - Northern Star Resources Limited (ASX: NST) 75%

Joint Venture partner, Northern Star Resources, advised that the results for surface geochemical sampling programmes carried out over E27/491 and E27/520 were received during the Quarter, however no new anomalies were defined.

No drilling activities occurred the Quarter. A drill programme comprising 16 holes for 1,800 metres is planned to follow up the encouraging early-stage results at Gambia South and is scheduled to commence in the June Quarter. Site preparations for this programme have been completed.

## Blair – Golden Ridge Nickel Joint Venture Eastern Goldfields WA (nickel rights only)

# ESS 100% reducing to 25% - Australian Nickel Co. Ltd (renamed from Crest Investment Group 1 Ltd) earning 75% (farmin stage)

The main activities undertaken during the Quarter were as follows:

- Completion of a 20-hole RC drill programme totalling 3,429 metres, targeting the immediate Blair Mine environment, Leo Dam and Blair South targets.
- Commencement of a down-hole electromagnetic (DHEM) survey utilising 13 of the holes drilled.

Assay results and interpretation of the DHEM survey are anticipated to be received during the June Quarter.



#### Balagundi Gold/Base Metals Joint Venture Eastern Goldfields WA

#### ESS 100% reducing to 25% - Black Cat Syndicate Limited (ASX: BC8) earning 75% (farm-in stage)

The Balagundi Project is located 25km east of Kalgoorlie and sits immediately adjacent to the north-west portion of the Myhree Mining Centre within the Kurnalpi Terrane, which is separated from the Myhree Mining Centre by the Victory Fault (a second order regional structure). The project is prospective for both gold and base metal VMS-style deposits. Essential Metals and Black Cat entered into the Farm-in and Joint Venture in July 2019.

No significant gold or base metals exploration activities were undertaken during the Quarter.

#### Wattle Dam Nickel Joint Venture Eastern Goldfields WA (nickel rights only)

#### ESS 20% - Maximus Resources Limited (ASX: MXR) 80%

Exploration activity by the JV operator, Maximus Resources Limited (Maximus), focused on the Hilditch West target during the Quarter.

**Hilditch West:** A drill programme comprised of 14 RC holes totalling 1,590 metres and two DD holes totalling 490 metres were completed during the Quarter.

The initial observations were described by Maximus as encouraging and indicating that the infill and expansion programme had intersected the expected alteration including sulphides along ~1km of prospective structure. The drill programme was designed to expand the initial scout drilling which successfully discovered shallow nickel-copper-cobalt intersections. The presence of ultramafic rock units in the deeper diamond drilling confirms previous geological interpretations that the nickel sulphides within the Hilditch West structure are likely to have been transported from deeper in the stratigraphy.<sup>5</sup>

#### Larkinville Joint Venture Eastern Goldfields WA

#### ESS 25% - Maximus Resources Limited (ASX: MXR) 75%

Rock chip sampling undertaken in 2016 of outcropping pegmatites in the northern area at Larkinville returned up to 5.29% Li2O and 2.93% Rb (Refer ASX: MXR announcement 15 September 2016).

Results from reconnaissance rock-chip sampling of outcropping pegmatites in the southwest of the Project have returned elevated levels of niobium, rubidium and tantalum were reported in the Quarter with XRD analysis required to determine the lithium bearing minerals present in addition to the identified zinnwaldite. Further work, including drilling, is required to determine whether the swarm in the south-west of the Project has lithium-rich domains at the surface and at depth.<sup>6</sup>

#### Kangan Gold Joint Venture Pilbara, WA

#### ESS 30% - Novo Resources Limited 70%

The Kangan Project is located in the West Pilbara region of Western Australia. Novo Resources Corp holds a 70% interest in the Project with Essential Metals retaining a 30% interest. Novo will fully fund all gold exploration programmes with Essential Metals free-carried until a decision to mine is made.

No significant gold exploration activities were undertaken during the Quarter.

<sup>&</sup>lt;sup>5</sup> Refer ASX:MXR announcement 23 March 2022 – Nickel Mineralisation Identified – Hilditch West

<sup>&</sup>lt;sup>6</sup> Refer ASX:MXR announcement 31 March 2022 – Exploration Update – Lithium Prospectivity - Spargoville



# CORPORATE

As at 31 March 2022, the Company held **\$9.5 million in cash reserves** and had no debt.

During the quarter, the Company sold 13.8 million shares held in Critical Resources Limited (ASX: CRR) at an average sale price of \$0.073 per share, for total gross proceeds of \$1 million before selling costs.

At the end of the quarter the Company held 20.2 million CRR shares valued at \$1.6 million (\$0.079 per share) and 1.25 million shares in International Lithium Corp (TSXV: ILC.V) valued at \$0.14 million (\$0.112 per share).

#### Appendix 5B expenditure disclosure

During the quarter, the Company paid a total of A\$122,000 to related parties, comprising all directors of the Company (Managing Director salary, non-executive director fees and superannuation). (Appendix 5B, Item 6).

**Post Quarter**: The Company received an unsolicited, confidential, non-binding indicative takeover proposal ("Indicative Proposal") from a credible lithium industry participant ("Interested Party") to acquire 100% of the issued capital of Essential by way of an off-market takeover.

The Indicative Proposal was incomplete and subject to conditions including the completion of due diligence, a unanimous recommendation by the Essential Board and a 90% minimum acceptance threshold.

The Board of Essential, together with its corporate and legal advisers, Sternship Advisers and HopgoodGanim respectively, undertook a review of the Indicative Proposal and engagement with the Interested Party.

After deliberations by both parties, the Interested Party advised that in light of the recent upward trajectory in the trading price of Essential shares, it is unlikely that a transaction would be successfully completed at this time and so withdrew the Indicative Proposal.

For further information:	Investor Relations
Tim Spencer, Managing Director	Nicholas Read
Essential Metals Limited	Read Corporate
T: +61 8 9322 6974	T: +61 8 9388 1474
E: tims@essmetals.com.au	E: nicholas@readcorporate.com.au

#### This ASX release has been approved by the Board of Directors

#### **References to ASX announcements:**

- 14 January 2022 Pioneer Dome Lithium Project update
- 17 February 2022 Blair drilling
- 25 February 2022 Pioneer Dome drilling
- 31 March 2022 Pioneer Dome next drilling

The Company confirms that it is not aware of any new information or data that materially affects the information included in the previous market announcements and that all material assumptions and technical parameters underpinning the estimates in the relevant market announcement continue to apply and have not materially changed.



#### ABOUT ESSENTIAL METALS LIMITED

Essential Metals is a well-funded and active explorer focused on key global demand-driven commodities, focussed on the creation of shareholder wealth through exploration and project development. The Company operates **three strategically located lithium and gold projects** in Western Australia.

#### 100% OWNED AND MANAGED PROJECTS:

- LITHIUM: The Pioneer Dome LCT Project is highly prospective for lithium-caesium-tantalum (LCT) mineral systems and includes the Dome North Lithium Mineral Resource of 11.2 million tonnes @ 1.21% Li<sub>2</sub>O.<sup>7</sup>
- **GOLD:** The **Juglah Dome Project** is located 60km east-southeast of Kalgoorlie and is considered to be highly prospective for gold and has potential for VHMS style polymetallic deposits.
- **GOLD:** The **Golden Ridge Project** is located ~20km SSE of Kalgoorlie, WA. Our activities are focussed on reappraising known prospects as well as identifying new areas within the large land tenure.

#### JOINT VENTURE INTERESTS:

- **GOLD:** The **Acra** Project is near Kalgoorlie. Northern Star Resources Limited (ASX: NST) has earned a 75% Project Interest and continues to fully fund exploration programmes until approval of a Mining Proposal by DMIRS is received with Essential Metals holding a 25% interest.
- **GOLD:** The **Kangan** Project is in the West Pilbara and part of a joint venture with Novo Resources Corp (TSXV.NVO), who will fund 100% of gold exploration programmes until a decision to mine is made, with Essential Metals holding a 30% interest.
- **GOLD:** The **Balagundi** Project is subject to a farmin & JV agreement where Black Cat Syndicate Limited (ASX: BC8) is earning a 75% interest in the Project located at Bulong, near Kalgoorlie. Black Cat will then fully fund gold exploration programmes until a decision to mine is made, with Essential Metals retaining a 25% interest.
- **GOLD:** The Company holds a 25% free-carried interest (gold only) in the **Larkinville** Project near Kambalda, WA, with Maximus Resources Ltd (ASX: MXR).
- NICKEL: The nickel mineral rights on the Blair-Golden Ridge Project, which includes the suspended Blair Nickel Sulphide Mine. are subject to a Farmin/Joint Venture with Crest Investment Group, a nickel exploration specialist which is earning up to a 75% interest. The Company will retain a 25% free-carried interest up to a decision to mine.
- NICKEL: The Company holds a 20% free-carried interest (nickel only) in the **Wattle Dam** project near Kambalda, WA, with Maximus Resources Ltd (ASX: MXR).

#### **Forward Looking Statements**

This document may contain forward-looking statements which involve a number of risks and uncertainties. These forward looking statements are expressed in good faith and believed to have a reasonable basis. These statements reflect current expectations, intentions or strategies regarding the future and assumptions based on currently available information. Should one or more of the risks or uncertainties materialise, or should underlying assumptions prove incorrect, actual results may vary from the expectations, intentions and strategies described in this announcement. No obligation is assumed to update forward looking statements if these beliefs, opinions, and estimates should change or to reflect other future developments.

<sup>&</sup>lt;sup>7</sup> Refer ASX:ESS announcement 29 September 2020 – Dome North Resource upgrade



#### **Competent Person Statements**

#### **Exploration Results - ESS Projects**

Mr Andrew Dunn (MAIG), Exploration Manager who is employed full-time by Essential Metals Limited, compiled the technical aspects of this Report, other than pertaining to the Joint Ventures. Mr Dunn is eligible to receive equity-based securities in Essential Metals Limited under the Company's employee incentive schemes. Mr Dunn is a member of the Australian Institute of Geoscientists and has sufficient experience that is relevant to this style of mineralization and type of deposit under consideration and to the activity that is being reported on to qualify as a Competent Person as defined in the 2012 edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Mr Dunn consents to the inclusion in the report of the matters in the form and context in which it appears.

#### **Dome North Lithium Project - Mineral Resources**

The information in this Report that relates to Mineral Resources for the Dome North Lithium Project is based on and fairly represents information compiled by Competent Persons Mr Stuart Kerr and Mr Lauritz Barnes as extracted from the report entitled "Dome North Lithium Project – Resource upgrade" created on 29 September 2020 and is available to view on www.essmetals.com.au. The Company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcement and, in the case of Mineral Resources, that all material assumptions and technical parameters underpinning the estimates in the relevant market announcement continue to apply and have not materially changed. The Company confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original market announcement.

#### Acra Gold Project Joint Venture – Exploration Work

The information in this announcement that relates to exploration results for the Acra Project Joint Venture is based on information compiled by Michael Mulroney, a Competent Person who is a Member of the Australasian Institute of Mining and Metallurgy and a full-time employee of Northern Star Resources Limited. Mr Mulroney has sufficient experience that is relevant to the styles of mineralisation and type of deposits under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves" for the Company's Acra Project Joint Venture. Mr Mulroney consents to the inclusion in this announcement of the matters based on this information in the form and context in which it appears.

#### Exploration Results (Wattle Dam and Larkinville Joint Ventures)

The information in this report pertaining to the Wattle Dam Nickel JV and the Larkinville JV is based on information reviewed, collated and compiled by Dr Travis Murphy, a full-time employee of Maximus Resources Limited. Dr Murphy is a professional geoscientist and Member of The Australian Institute of Geoscientists and has sufficient experience relevant to the style of mineralisation and type of Deposit under consideration and to the activity which has been undertaken, to qualify as a Competent Person as defined in the 2012 Edition of the Joint Ore Reserves Committee (JORC) Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Dr Murphy consents to the inclusion in the report of the matters based on information in the form and context in which it appears.



#### Appendix 1

The following information is provided in accordance with ASX Listing Rule 5.3 for the Quarter.

## 1. Listing of Tenements (Consolidated Basis) as at Quarter End

Tenement	Holder	Notes	Status
Pioneer Dome	Project Located 133km SSE of Kalgoorlie, WA		
E15/1515	Essential Metals Limited		Granted
E15/1725	Essential Metals Limited		Granted
E63/1669	Essential Metals Limited		Granted
E63/1782	Essential Metals Limited		Granted
E63/1783	Essential Metals Limited		Granted
E63/1785	Essential Metals Limited		Granted
E63/1825	Essential Metals Limited		Granted
E63/2118	Essential Metals Limited		Granted
L63/77	Essential Metals Limited		Granted
M63/665	Essential Metals Limited		Granted
Golden Ridge	Nickel Project Located 30km SE of Kalgoorlie, WA		
E26/186	Golden Ridge North Kambalda Pty Ltd	1, 2	Granted
E26/211	Golden Ridge North Kambalda Pty Ltd	1, 2	Granted
E26/212	Golden Ridge North Kambalda Pty Ltd	1, 2	Granted
M26/220	Golden Ridge North Kambalda Pty Ltd	1, 2	Granted
M26/222	Golden Ridge North Kambalda Pty Ltd	1, 2	Granted
M26/284	Golden Ridge North Kambalda Pty Ltd	1, 2	Granted
M26/285	Golden Ridge North Kambalda Pty Ltd	1, 2	Granted
L26/272	Golden Ridge North Kambalda Pty Ltd	1, 2	Granted
Juglah Dome I	Project Located 60km ESE of Kalgoorlie, WA		
E25/585	Western Copper Pty Ltd	3	Granted
<b>Regional Proje</b>	ects, Located in WA		
E15/1710	Essential Metals Limited		Granted
Kangan Lithiu	m & Gold Project Located 80km S of Port Hedland, (Wodgina)	WA	
E45/4948	Essential Metals Limited	5	Granted
E47/3318-I	Essential Metals Limited	4, 5	Granted
E47/3321-I	Essential Metals Limited	4, 5	Granted
E47/3945	Essential Metals Limited	5	Granted
Balagundi Gol	d & Base Metals Project Located 25km NE of Kalgoorlie, WA		
E27/558	Essential Metals Limited	6	Granted
Acra Gold Pro	oject Located 60km NE of Kalgoorlie, WA		
E27/278	Essential Metals Limited / Northern Star Resources Limited	7, 8	Granted
E27/438	Essential Metals Limited / Northern Star Resources Limited	7, 8	Granted
E27/491	Essential Metals Limited / Northern Star Resources Limited	8	Granted
E27/520	Essential Metals Limited / Northern Star Resources Limited	7, 8	Granted
E27/548	Essential Metals Limited / Northern Star Resources Limited	8	Granted
E27/579	Essential Metals Limited / Northern Star Resources Limited	7, 8	Granted
E28/1746	Essential Metals Limited / Northern Star Resources Limited	7, 8	Granted
E28/2483	Essential Metals Limited / Northern Star Resources Limited	8	Granted



Wattle Dam Nickel Project Located 65km S of Kalgoorlie, WAM15/1101Maximus Resources LimitedM15/1263Maximus Resources LimitedM15/1264Maximus Resources LimitedM15/1323Maximus Resources LimitedM15/1338Maximus Resources LimitedM15/1769Maximus Resources LimitedM15/1770Maximus Resources Limited	0.40	
M15/1263Maximus Resources LimitedM15/1264Maximus Resources LimitedM15/1323Maximus Resources LimitedM15/1338Maximus Resources LimitedM15/1769Maximus Resources Limited	0.40	
M15/1264Maximus Resources LimitedM15/1323Maximus Resources LimitedM15/1338Maximus Resources LimitedM15/1769Maximus Resources Limited	9, 10	Granted
M15/1323Maximus Resources LimitedM15/1338Maximus Resources LimitedM15/1769Maximus Resources Limited	9, 10	Granted
M15/1338Maximus Resources LimitedM15/1769Maximus Resources Limited	9, 10	Granted
M15/1769 Maximus Resources Limited	9, 10	Granted
	9, 10	Granted
	9, 10	Granted
M15/1770 Maximus Resources Limited	9, 10	Granted
M15/1771 Maximus Resources Limited	9, 10	Granted
M15/1772 Maximus Resources Limited	9, 10	Granted
M15/1773 Maximus Resources Limited	9, 10	Granted
Larkinville West Gold Project Located 75km S of Kalgoorlie, WA		
M15/1449 Essential Metals Limited / Maximus Resources Limited	11	Granted
P15/5912 Essential Metals Limited / Maximus Resources Limited	11	Granted
Maggie Hays Hill Nickel JV, Located 140km SE of Southern Cross		
E63/1784 Essential Metals Limited / Poseidon Nickel Limited	12	Granted

#### Note

Note	
1	Golden Ridge North Kambalda Pty Ltd is a 100% owned subsidiary of Essential Metals Limited.
2	Nickel sulphides rights are subject to the Australian Nickel Company Ltd Farmin/Joint venture.
3	Western Copper Pty Ltd is a 100% owned subsidiary of Essential Metals Limited.
4	Subject to a 1.5% NSR royalty right held by FMG Pilbara Pty Ltd.
5	Kangan Gold JV Agreement: Novo Resources Corp holds a 70% Project Interest in gold and precious metals mineral rights.
6	Balagundi Farmin/JV Agreement: Black Cat Syndicate Limited is earning a 75% Project interest.
7	Heron Resources Limited retains nickel laterite ore rights.
8	Acra JV Agreement Northern Star Resources Limited 75% interest. Essential Metals Limited 25% free carried interest.
9	Heron Resources Limited retains pre-emptive right to purchase nickel laterite ore.
10	Wattle Dam Nickel JV Agreement: Title, Mineral Rights held by Maximus Resources Limited. Essential Metals Limited 20% free carried interest in nickel sulphide minerals.
11	Larkinville West JV Agreement: Maximus Resources Limited 75%, Essential Metals Limited 25% free carried interest, except nickel rights which are subject to the Wattle Dam JV.
12	Maggie Hays Lake JV Agreement: Poseidon Nickel Limited 80%, Essential Metals Limited 20% & free carried interest to commencement of mining.



#### 2. Tenements acquired during the Quarter (Consolidated Basis)

Pioneer Dome Project, located 133km SSE of Kalgoorlie, WA:

- E63/2118 granted on 4 February 2022
- E15/1725 granted on 15 March 2022

#### 3. Tenements sold, relinquished, reduced or lapsed during the Quarter (Consolidated Basis)

Regional Projects located in Western Australia:

• E15/1522 relinquished on 7 March 2022

Mavis Lake Lithium Project, located 10km East of Dryden, Ontario, Canada:

- 6 Mining Leases with Surface Rights sold on 4 January 2022
- 189 Unpatented Mining Claims sold on 4 January 2022

#### 4. Tenements applied for during the Quarter (Consolidated Basis)

None.

## Appendix 5B

## Mining exploration entity or oil and gas exploration entity quarterly cash flow report

Name of entity

#### **ESSENTIAL METALS LIMITED**

ABN

44 103 423 981

Quarter ended ("current quarter")

31 March 2022

Consolidated statement of cash flows		Current quarter \$A'000	Year to date (9 months) \$A'000	
1.	Cash flows from operating activities			
1.1	Receipts from customers	-	-	
1.2	Payments for			
	(a) exploration & evaluation	-	(3)	
	(b) development	-	-	
	(c) production	-	-	
	(d) royalties	-	-	
	(e) staff costs	(185)	(599)	
	(f) administration and corporate costs	(145)	(505)	
1.3	Dividends received (see note 3)	-	-	
1.4	Interest received	13	19	
1.5	Interest and other costs of finance paid	-	-	
1.6	Income taxes paid	-	-	
1.7	Government grants and tax incentives	-	-	
1.8	Other (provide details if material)	-	13	
1.9	Net cash from / (used in) operating activities	(317)	(1,075)	

2.	Cash flows from investing activities		
2.1	Payments to acquire or for:		
	(a) entities	-	-
	(b) tenements	-	-
	(c) property, plant and equipment	-	(15)
	(d) exploration & evaluation	(936)	(2,064)
	(e) investments	-	-
	(f) other non-current assets	-	-

Consolidated statement of cash flows		Current quarter \$A'000	Year to date (9 months) \$A'000	
2.2	Proceeds from the disposal of:			
	(a) entities	375	375	
	(b) tenements	-	501	
	(c) property, plant and equipment	-	-	
	(d) investments	1,008	1,169	
	(e) other non-current assets	-	-	
2.3	Cash flows from loans to other entities	-	-	
2.4	Dividends received (see note 3)	-	-	
2.5	Other – Subsidiary disposal costs	(53)	(53)	
2.6	Net cash from / (used in) investing activities	394	(87)	

3.	Cash flows from financing activities		
3.1	Proceeds from issues of equity securities (excluding convertible debt securities)	-	5,000
3.2	Proceeds from issue of convertible debt securities	-	-
3.3	Proceeds from exercise of options	496	590
3.4	Transaction costs related to issues of equity securities or convertible debt securities	(18)	(345)
3.5	Proceeds from borrowings	-	-
3.6	Repayment of borrowings	-	-
3.7	Transaction costs related to loans and borrowings	-	-
3.8	Dividends paid	-	-
3.9	Other (provide details if material)	-	-
3.10	Net cash from / (used in) financing activities	478	5,245

4.	Net increase / (decrease) in cash and cash equivalents for the period		
4.1	Cash and cash equivalents at beginning of period	8,994	5,466
4.2	Net cash from / (used in) operating activities (item 1.9 above)	(317)	(1,075)
4.3	Net cash from / (used in) investing activities (item 2.6 above)	394	(87)
4.4	Net cash from / (used in) financing activities (item 3.10 above)	478	5,245

Con	solidated statement of cash flows	Current quarter \$A'000	Year to date (9 months) \$A'000
4.5	Effect of movement in exchange rates on cash held	-	-
4.6	Cash and cash equivalents at end of period	9,549	9,549

5.	Reconciliation of cash and cash equivalents at the end of the quarter (as shown in the consolidated statement of cash flows) to the related items in the accounts	Current quarter \$A'000	Previous quarter \$A'000
5.1	Bank balances	4,549	3,994
5.2	Call deposits	5,000	5,000
5.3	Bank overdrafts	-	-
5.4	Other (provide details)	-	-
5.5	Cash and cash equivalents at end of quarter (should equal item 4.6 above)	9,549	8,994

6.	Payments to related parties of the entity and their associates	Current quarter \$A'000
6.1	Aggregate amount of payments to related parties and their associates included in item 1	122
6.2	Aggregate amount of payments to related parties and their associates included in item 2	-

Note: if any amounts are shown in items 6.1 or 6.2, your quarterly activity report must include a description of, and an explanation for, such payments.

7.	<b>Financing facilities</b> Note: the term "facility' includes all forms of financing arrangements available to the entity. Add notes as necessary for an understanding of the sources of finance available to the entity.	Total facility amount at quarter end \$A'000	Amount drawn at quarter end \$A'000	
7.1	Loan facilities	-	-	
7.2	Credit standby arrangements	-	-	
7.3	Other (please specify)	-	-	
7.4	Total financing facilities	-	-	
7.5	Unused financing facilities available at qu	arter end	-	
7.6	Include in the box below a description of each facility above, including the lender, interest rate, maturity date and whether it is secured or unsecured. If any additional financing facilities have been entered into or are proposed to be entered into after quarter end, include a note providing details of those facilities as well.			

8.	Estim	ated cash available for future operating activities	\$A'000	
8.1	Net cas	sh from / (used in) operating activities (item 1.9)	(317)	
8.2		ents for exploration & evaluation classified as investing es) (item 2.1(d))	(936)	
8.3	Total re	elevant outgoings (item 8.1 + item 8.2)	(1,253)	
8.4	Cash a	nd cash equivalents at quarter end (item 4.6)	9,459	
8.5	Unused	d finance facilities available at quarter end (item 7.5)	-	
8.6	Total a	vailable funding (item 8.4 + item 8.5)	9,459	
8.7	Estima item 8.	ited quarters of funding available (item 8.6 divided by 3)	7.62	
	Note: if the entity has reported positive relevant outgoings (ie a net cash inflow) in item 8.3, answer item 8.7 as "N/A". Otherwise, a figure for the estimated quarters of funding available must be included in item 8.7.			
	Otherwis	e, a figure for the estimated quarters of funding available must be included in it	em 8.7.	
8.8		e, a figure for the estimated quarters of funding available must be included in it. 8.7 is less than 2 quarters, please provide answers to the follow		
8.8			ving questions:	
8.8	If item	8.7 is less than 2 quarters, please provide answers to the follow Does the entity expect that it will continue to have the current l cash flows for the time being and, if not, why not?	ving questions:	
8.8	If item 8 8.8.1	8.7 is less than 2 quarters, please provide answers to the follow Does the entity expect that it will continue to have the current l cash flows for the time being and, if not, why not?	ving questions: level of net operating steps, to raise further	
8.8	If item 8 8.8.1 Answe	<ul> <li>8.7 is less than 2 quarters, please provide answers to the follow.</li> <li>Does the entity expect that it will continue to have the current l cash flows for the time being and, if not, why not?</li> <li>r: N/A</li> <li>Has the entity taken any steps, or does it propose to take any cash to fund its operations and, if so, what are those steps and believe that they will be successful?</li> </ul>	ving questions: level of net operating steps, to raise further	
8.8	If item 8 8.8.1 Answer 8.8.2	<ul> <li>8.7 is less than 2 quarters, please provide answers to the follow.</li> <li>Does the entity expect that it will continue to have the current l cash flows for the time being and, if not, why not?</li> <li>r: N/A</li> <li>Has the entity taken any steps, or does it propose to take any cash to fund its operations and, if so, what are those steps and believe that they will be successful?</li> </ul>	ving questions: level of net operating steps, to raise further d how likely does it	
8.8	If item 8 8.8.1 Answer 8.8.2 Answer	<ul> <li>8.7 is less than 2 quarters, please provide answers to the follow. Does the entity expect that it will continue to have the current I cash flows for the time being and, if not, why not?</li> <li>r: N/A</li> <li>Has the entity taken any steps, or does it propose to take any cash to fund its operations and, if so, what are those steps and believe that they will be successful?</li> <li>r: N/A</li> <li>Does the entity expect to be able to continue its operations an objectives and, if so, on what basis?</li> </ul>	ving questions: level of net operating steps, to raise further d how likely does it	

#### **Compliance statement**

- 1 This statement has been prepared in accordance with accounting standards and policies which comply with Listing Rule 19.11A.
- 2 This statement gives a true and fair view of the matters disclosed.

Date: 29 April 2022

Authorised by: The Board of Directors (Name of body or officer authorising release – see note 4)

#### Notes

- 1. This quarterly cash flow report and the accompanying activity report provide a basis for informing the market about the entity's activities for the past quarter, how they have been financed and the effect this has had on its cash position. An entity that wishes to disclose additional information over and above the minimum required under the Listing Rules is encouraged to do so.
- 2. If this quarterly cash flow report has been prepared in accordance with Australian Accounting Standards, the definitions in, and provisions of, AASB 6: Exploration for and Evaluation of Mineral Resources and AASB 107: Statement of Cash Flows apply to this report. If this quarterly cash flow report has been prepared in accordance with other accounting standards agreed by ASX pursuant to Listing Rule 19.11A, the corresponding equivalent standards apply to this report.
- 3. Dividends received may be classified either as cash flows from operating activities or cash flows from investing activities, depending on the accounting policy of the entity.
- 4. If this report has been authorised for release to the market by your board of directors, you can insert here: "By the board". If it has been authorised for release to the market by a committee of your board of directors, you can insert here: "By the [name of board committee – eg Audit and Risk Committee]". If it has been authorised for release to the market by a disclosure committee, you can insert here: "By the Disclosure Committee".
- 5. If this report has been authorised for release to the market by your board of directors and you wish to hold yourself out as complying with recommendation 4.2 of the ASX Corporate Governance Council's *Corporate Governance Principles and Recommendations*, the board should have received a declaration from its CEO and CFO that, in their opinion, the financial records of the entity have been properly maintained, that this report complies with the appropriate accounting standards and gives a true and fair view of the cash flows of the entity, and that their opinion has been formed on the basis of a sound system of risk management and internal control which is operating effectively.