BLUE STAR HELIUM

ASX ANNOUNCEMENT
30 October 2024

Activities Report
Quarter Ended 30 September 2024

Blue Star Helium Limited (ASX: BNL, OTCQB: BSNLF) (**Blue Star** or the **Company**) is pleased to provide an update on its activities during the quarter ended 30 September 2024.

Highlights

Galactica/Pegasus

- Landmark farm-in agreement executed with Helium One for a 50% interest in the Galactica / Pegasus project.
- Helium One to pay US$1.5 million to Blue Star on completion of farm-in and fully fund the drilling of six (6) development wells at Galactica (Phase 1 of the broader Galactica / Pegasus development).
- Blue Star to remain operator for the project with first helium production from Galactica / Pegasus expected during H1 2025.
- Blue Star continues to advance a plan of development to monetise CO_2 (up to 70% concentration) gas that flows from the reservoir in addition to the helium.
- Potential CO_2 gas stream offers substantial enhancement of Galactica / Pegasus project revenues.

Serenity

- Serenity is a source of high-grade carbon dioxide at approximately 98-99% CO_2 concentration.
- An initial low capex, small-scale production facility for Serenity has been selected.
- Initial facility processing 500 Mcf/d raw gas is expected to produce over 20 tons per day of beverage-grade CO_2 product gas.
- Targeting first CO_2 product gas output from Serenity in H1 2025.
- Commercial offtake discussions continue with planned contracting of full output.

Corporate

- Vesting of Tranche 3 performance rights previously described in plan approved by shareholders in May 2022.
- Successful completion of strongly supported two-tranche equity placement raising proceeds of approximately A$3.0 million.
- Quarter end cash balance of A$1.2 million and zero debt.
- Post quarter end, the Company has received A$1.06 million (before costs) in respect of tranche 2 of the placing and expects to receive a further A$1.5 million from Helium One Global on closing the farmin agreement.

OPERATIONS

Galactica/Pegasus Project

Background

The Galactica/Pegasus helium development is a larger-scale project with multiple potential product streams. Four existing Blue Star discoveries at Galactica/Pegasus via exploration wells JXSN#1 to JXSN#4 delivered gas flowing at 125 - 412 mcf/d and high air-corrected concentrations of 2.0 - 6.1% helium (refer Table 1 below).

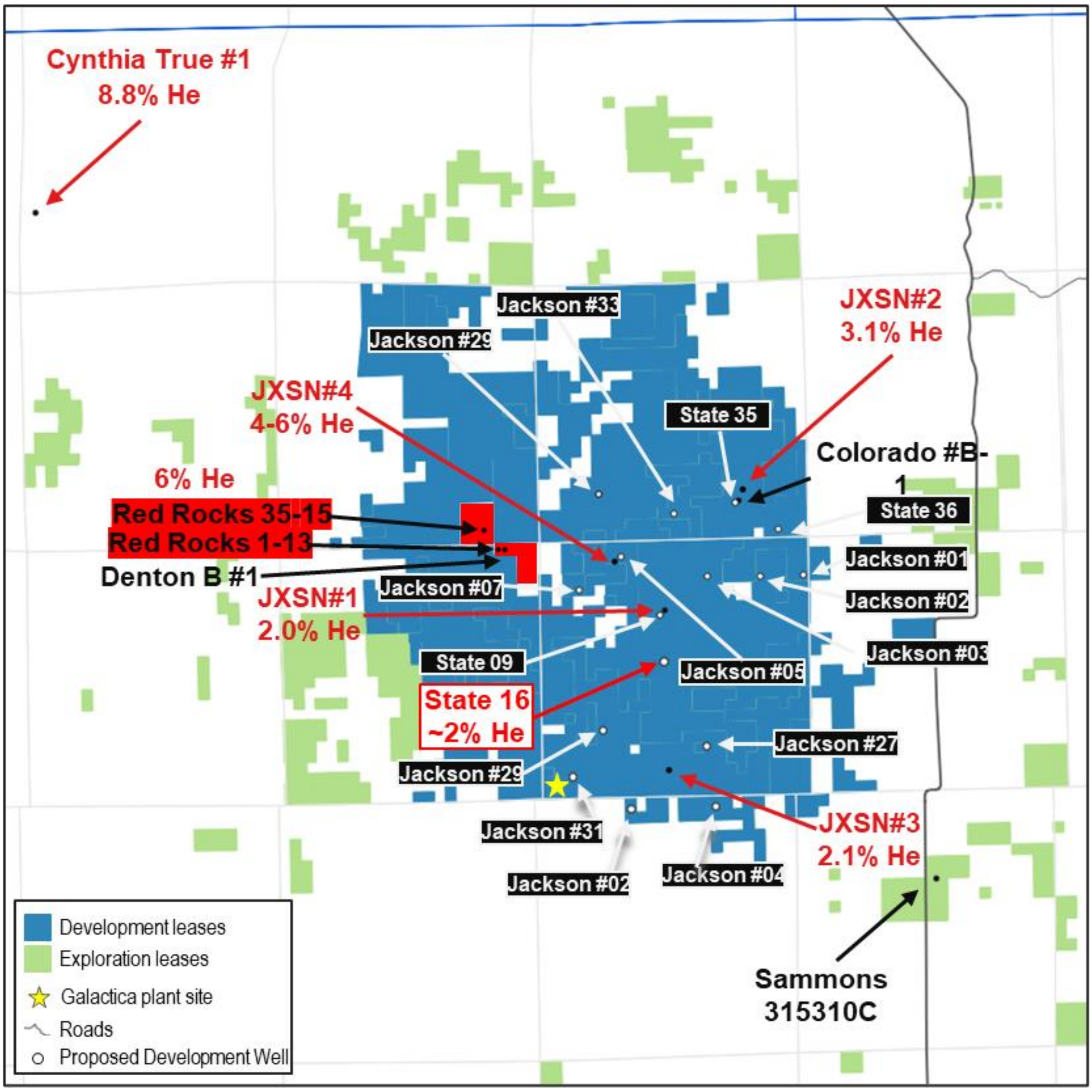

Figure 1: Planned development well locations at the Galactica / Pegasus project including the neighbouring Red Rocks Helium development

The Galactica / Pegasus development is further de-risked by the successful third-party commercialisation of the adjoining Red Rocks helium development using an IACX midstream leased process facility arrangement.

There are currently a range of development and commercialisation pathways under review, including a leased plant and third party operated option. The final development is expected to include a CO_2 production stream, in addition to helium revenues.

Engineering and market work continues to refine the development configurations, forecast production and cost estimates.

Field development

<u>Reservoir Engineering and Production</u>

Blue Star advised on 1 July 2024 that it had integrated the State 16 development well results with the test data from the JXSN#1 – #4 discovery wells drilled by Blue Star and compared this data to the public information available from the adjacent Red Rocks development.

These results indicated that at State 16 the calculated permeability for the Lyons formation is 405 mD, meaning that with a producing wellhead pressure of 6 psia the well would be capable of 441 Mscfd.

The range of permeabilities calculated in the JXSN discovery wells and State 16 well is 300 to 750 mD, which result in initial flow rates at 6 psia wellhead pressure of between 334 and 780 Mscfd.

As part of the development planning, various vacuum compression is being considered for each well from 11 psia (-1 psig) wellhead pressure to 6 psia (-6 psig) wellhead pressure, resulting in stabilised flow rates ranging from 250 Mscfd to 615 Mscfd based on the range of permeabilities seen to date. For the State 16 well (405 mD), these rates would equate to 250 Mscfd to 350 Mscfd.

These rates represent constrained rates to maximise the initial production rate plateau which is standard practice in gas developments to maximise recovery and reservoir pressure maintenance while providing a more constant feed rate to be achieved through the plant.

The State 16 well is completed and awaiting potential tie-in to production facilities.

<u>Additional Well Permitting</u>

Blue Star currently has 15 approved helium development locations approved at Galactica / Pegasus, of which three are fully approved for drilling.

Following the helium discovery at the State 16 well, Blue Star filed a new OGDP for five additional development wells (**OGDP I**). These wells are located to the south and south-west of the State 16 well toward the proposed initial Galactica plant site (refer Figure 1) and are expected, together with State 16, to form part of the initial gas gathering system into the Galactica helium production facility.

On 3 July 2024, the Colorado Energy and Carbon Management Commission (**ECMC**) advised that it would hear the application to approve this OGDP on 25 September 2024. On 19 September 2024, the ECMC advised that the hearing had been moved to 16 October 2024, to allow the ECMC to manage its aggregate workload. On 16 October 2024 the ECMC approved OGDP I. Blue Star will apply for final drill permits for these wells which will increase the number of wells fully approved for drilling to eight.

Landmark farm-out agreement with Helium One

In late August 2024, Blue Star announced that it had reached an agreement with Helium One Global Ltd (AIM: HE1) (**Helium One**) regarding a farm-out of 50% of its interest in Galactica / Pegasus.

Under this binding Heads of Agreement, Helium One will earn a 50% interest in Galactica / Pegasus in exchange for the payment of US$1.5 million to Blue Star in consideration for past costs. Additionally, Helium One is to sole fund a six well development drilling programme. Five of these initial wells are included in the Galactica Pegasus OGDP I.

The Agreement is subject to satisfaction or waiver of certain conditions precedent, the key ones being approval by the ECMC of the Galactica / Pegasus OGDP I, and the execution of definitive governing agreements (including a farm-in agreement and a joint operating agreement). If the parties fail to agree the definitive governing documents by 31 October 2024, then the parties are bound to the Agreement becoming the final transaction document.

Blue Star, through its local operating entity, will continue to act as Operator of the Galactica / Pegasus project.

Helium One's obligation under the initial six well drilling programme is capped at US$0.45 million per well. In the event that any well exceeds that obligation ceiling, the partners will share excess costs in proportion with their respective project working interests, ie 50/50.

Both parties will fund their working interest share of the tie-back, installation, and processing and other expenditures required for the Galactica / Pegasus project.

The initial six well drilling programme funded by Helium One, together with State-16, are expected to form the initial gas gathering system into the Phase 1 helium production facility (location shown on Figure 1 above).

First production from the Phase 1 Galactica / Pegasus development is expected during H1 2025.

Serenity Project

Background

The Serenity prospect was drilled and tested through the Sammons 315310C well in Q3 2022. This well produced a high-grade natural carbon dioxide accumulation during testing.

Lab analysis of representative reservoir samples taken during natural flowing of the well contained a combined average composition from both the upper and lower Lyons reservoirs of 98.77% carbon dioxide, 1.15% nitrogen and 0.09% helium, with the lower Lyons reservoir consistently showing higher CO_2 up to 98.95%. Flow testing was conducted at various stages throughout the upper Lyons drilling with gas rates as high as 500 Mcfd through a 1.25-inch orifice.

During drilling the upper Lyons sand was fully penetrated between 1,155 feet and 1,238 feet, representing an 83 ft gas column in high-quality reservoir. The upper Lyons is completely gas filled with no water being encountered during drilling or testing. Casing was set at 1,270 feet in the shale that separates the upper and lower Lyons sands.

The lower Lyons sand was penetrated at 1,308 feet and the well was TD'd at 1,323 feet as planned penetrating 15 feet of the lower Lyons sands. The drilled lower Lyons section was also completely gas filled with no water being encountered during drilling. Initial flow testing was conducted with gas rates of around 115 Mcfd through a ¾ inch orifice. No water was encountered during testing. Based on offset wells there is approximately 40 feet of high-quality lower Lyons sand in addition to the 15 feet penetrated.

The Company has three additional approved drilling locations which require final drill Form 2 approvals in order for additional wells to be drilled. It is expected that a second well will be drilled and the existing Sammons well will be completed for production in anticipation of installation of an initial facility.

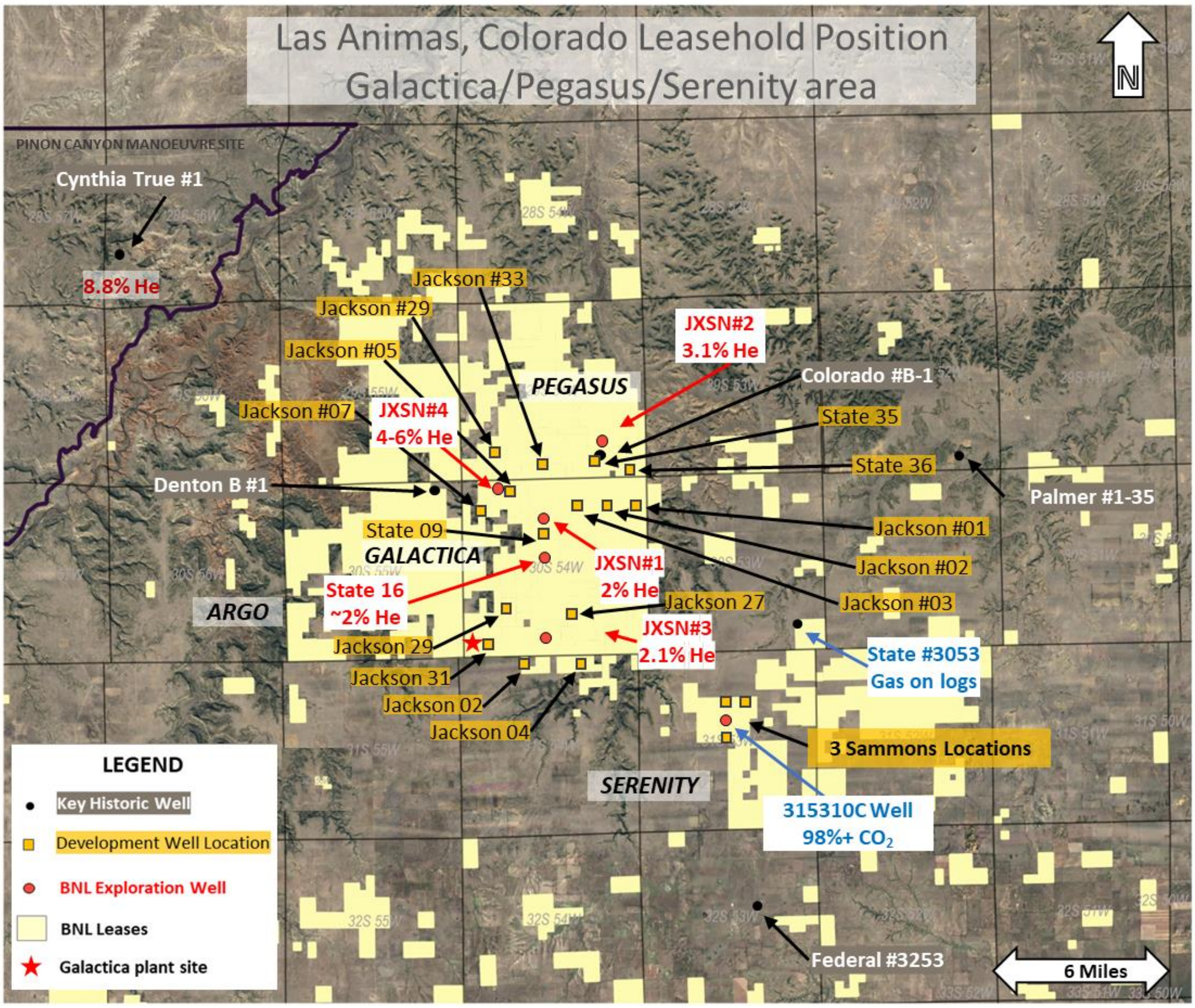

Figure 2: Location of Serenity Project adjacent to Galactica / Pegasus

Expected synergies with primary helium production strategy

The development of Blue Star's CO_2 resources represents a highly significant and scalable opportunity.

On successful development of an initial Serenity facility, the Company expects to be able to develop up to 18 further locations at Serenity as an expanded commercialisation of this asset. Further evaluation of this larger-scale development is in progress in consultation with key engineering consultants and end-market participants.

Blue Star is also continuing to refine its development case for Galactica / Pegasus, which envisages production of both helium and CO_2 product streams. Ongoing evaluation here is demonstrating the considerable opportunity presented by processing larger raw gas volumes through a CO_2 plant prior to feeding what is then helium-enriched feed gas into a helium processing plant.

Ultimately, Blue Star's goal is the production of high-grade helium from Galactica / Pegasus and the sustainable production of food/beverage-grade CO_2 from both Serenity and Galactica / Pegasus.

Development concept

Blue Star advised on 25 July 2024 it had undertaken a review of various development concepts for the Serenity CO_2 project. The Company has selected an initial small-scale, low capex development targeting first production of beverage-grade CO_2 from H1 2025. The proposed facility is a chilled distillation system producing high-purity liquid CO_2. The system concept supports processing of approximately 500 Mcf/d raw gas from an initial two-well development producing between 20 and 25 tons per day of beverage-grade CO_2.

The Company is in discussions with several process facility suppliers and expects to be in a position to let contracts for the construction of the facility in the short-term.

The Company is also investigating opportunities to acquire used plants including larger scale used plants.

CORPORATE

Vesting of performance rights

On 1 July 2024, Blue Star advised that the Company had met the vesting condition which applied to tranche 3 of the performance rights as described in the plan approved by shareholders at the Annual General Meeting held on 31 May 2022.

The Company confirms that the vesting condition required the Company to drill five separate prospects within two years of the issue of the performance rights. The prospects that have been drilled are the Enterprise, Voyager, Galactica, Pegasus and Serenity prospects.

Accordingly, 14,200,000 tranche 3 performance rights can now be converted into fully paid ordinary shares in the Company at the election of the holders.

A further 4,000,000 tranche 3 performance rights issued to US employees have been converted and the Company will satisfy its obligations to them partly by the issue of 2,620,018 fully paid ordinary shares in the Company and partly by the payment of US$6,398 to the relevant employees.

Placement to raise A$3.0 million

On 5 September 2024, Blue Star advised it had successfully arranged an equity placement to raise A$3.0 million in new proceeds, issuing 750,000,000 new ordinary shares to institutional and sophisticated investors at an issue price of A$0.004 per new share.

The placement includes, subject to shareholder approval, one unlisted free option for every two new shares subscribed for and issued, exercisable at $0.01 and expiring two years from the date of issue. The Placement was strongly supported by existing sophisticated, professional and institutional shareholders.

The placement comprises two tranches:

Tranche 1: issued pursuant to the Company's existing issuance capacity with 291,732,794 new shares issued under ASX Listing Rule 7.1 and 194,488,529 new shares issued under ASX Listing Rule 7.1A.

Tranche 2: will consist of 263,778,677 new shares and 375,000,000 new options, to be issued subject to shareholder approval at a general meeting to be held on 24 October 2024.

Trent Spry, or his nominee, intends to participate in the Placement up to 3,500,000 new shares and 1,750,000 new options, subject to the receipt of shareholder approval at the general meeting.

Balance sheet

Blue Star's cash balance at 30 September 2024 was approximately A$1.2 million. Subject to receipt of shareholder approval at the upcoming general meeting, Blue Star expects to receive gross Tranche 2 placement funds of approximately A$1.06 million in late October. Blue Star will also receive US$1.5 million on completion of the farmin agreement with Helium One which is expected to occur shortly.

The Company has zero debt, excluding typical trade creditor balances.

TENEMENT TABLE

Tenements held at the end of the quarter and changes thereof. Project Name	Acreage held at the beginning of the Quarter	Acreage held at the end of the Quarter	Acreage acquired (disposed/lapsed)
Helium Project, Las Animas, Colorado, USA*	Circa 312,042 gross (224,103 net) acres	Circa 314,556 gross (224,624 net) acres	Circa 2514 gross (521 net) acres

5B COMMENTARY

Description of Selected Items in Appendix 5B

Appendix 5B Reference		Commentary
1.2 (a)	Expensed exploration and evaluation costs	Expenditures associated with G&G.
1.2 (c)	Payments for production	Expenditures associated with the Company's Big Star Project in Texas USA.
2.1 (b)	Payments to acquire tenements	Costs associated with the acquisition of helium leases in Colorado, USA including land manager fees.
2.1 (d)	Capitalised exploration and evaluation costs	Capitalised expenditures associated with exploration and evaluation of the Company's helium acreage in Colorado USA. Includes drilling preparation, permitting, subsurface evaluation and field costs.
6.1 and 6.2	Payments to Related Parties	Includes directors' fees and superannuation paid to directors.

The Board has authorised the release of this announcement to ASX.

For further information, please contact:

Trent Spry

Managing Director & CEO

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About Blue Star Helium:

Blue Star Helium Ltd (ASX:BNL) is an independent helium exploration and production company, headquartered in Australia, with operations and exploration in North America. Blue Star's strategy is to provide its shareholders with exposure to multiple high-value helium projects in North America. For further information please visit the Company's website at www.bluestarhelium.com

About Helium:

Helium is a unique industrial gas that exhibits characteristics both of a bulk, commodity gas and of a high value specialty gas and is considered a "high tech" strategic element. Due to its unique chemical and physical qualities, helium is a vital element in the manufacture of MRIs and semiconductors and is critical for fibre optic cable manufacturing, hard disc manufacturing and cooling, space exploration, rocketry, lifting and high-level science. There is no way of manufacturing helium artificially and most of the world's reserves have been derived as a by-product of the extraction of natural hydrocarbon gas.




Appendix 5B

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

Name of entity

Blue Star Helium Limited

ABN	Quarter ended ("current quarter")
75 009 230 835	30 September 2024

	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	3	7
1.2	Payments for		
	(a) exploration & evaluation	(124)	(2,853)
	(b) development	-	-
	(c) production	-	(179)
	(d) staff costs	(374)	(1,204)
	(e) administration and corporate costs	(325)	(885)
1.3	Dividends received (see note 3)	-	-
1.4	Interest received	2	23
1.5	Interest and other costs of finance paid	(1)	(2)
1.6	Income taxes paid	-	-
1.7	Government grants and tax incentives	-	-
1.8	Other (provide details if material)	-	-
1.9	**Net cash from / (used in) operating activities**	**(819)**	**(5,093)**

2.	**Cash flows from investing activities**		
2.1	Payments to acquire or for:		
	(a) entities	-	-
	(b) tenements / leases	(147)	(310)
	(c) property, plant and equipment	(27)	(261)
	(d) exploration & evaluation	(366)	(910)
	(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	-	-
	(b) tenements / leases	-	-
	(c) property, plant and equipment	-	-
	(d) investments	-	-
	(e) other non-current assets	-	-
2.3	Cash flows from loans to other entities	-	-
2.4	Dividends received (see note 3)	-	-
2.5	Other (return of bonds)	-	-
2.6	**Net cash from / (used in) investing activities**	**(540)**	**(1,481)**

3.	**Cash flows from financing activities**		
3.1	Proceeds from issues of equity securities (excluding convertible debt securities)	1,945	1,945
3.2	Proceeds from issue of convertible debt securities	-	-
3.3	Proceeds from exercise of options	-	-
3.4	Transaction costs related to issues of equity securities or convertible debt securities	(123)	(126)
3.5	Proceeds from borrowings	-	-
3.6	Repayment of borrowings	(481)	(890)
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**	**1,341**	**929**

4.	**Net increase / (decrease) in cash and cash equivalents for the period**		
4.1	Cash and cash equivalents at beginning of period	1,225	6,869
4.2	Net cash from / (used in) operating activities (item 1.9 above)	(819)	(5,093)
4.3	Net cash from / (used in) investing activities (item 2.6 above)	(540)	(1,481)
4.4	Net cash from / (used in) financing activities (item 3.10 above)	1,341	929

Consolidated 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	32	15
4.6	**Cash and cash equivalents at end of period**	**1,239**	**1,239**

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	1,239	1,225
5.2	Call deposits	-	-
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)**	**1,239**	**1,225**

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	110
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.	**Financing facilities** *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 quarter 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.

N/A

8.	**Estimated cash available for future operating activities**	**$A'000**
8.1	Net cash from / (used in) operating activities (item 1.9)	(819)
8.2	(Payments for exploration & evaluation classified as investing activities) (item 2.1(d))	(366)
8.3	Total relevant outgoings (item 8.1 + item 8.2)	(1,185)
8.4	Cash and cash equivalents at quarter end (item 4.6)	1,239
8.5	Unused finance facilities available at quarter end (item 7.5)	-
8.6	Total available funding (item 8.4 + item 8.5)	1,239
8.7	**Estimated quarters of funding available (item 8.6 divided by item 8.3)**	1.0

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.

8.8 If item 8.7 is less than 2 quarters, please provide answers to the following questions:

8.8.1 Does the entity expect that it will continue to have the current level of net operating cash flows for the time being and, if not, why not?

Answer: The Company expects to incur reduced net operating cash outflows in the coming quarter as it has entered into a farmin agreement with Helium One Global Ltd that will significantly reduce the capital required for the Galactica Pegasus project. The first half of 2025 will see a relative increase in net operating cash outflows as the Galactica Pegasus development is finalized easing once turned to sales.

8.8.2	Has the entity taken any steps, or does it propose to take any steps, to raise further cash to fund its operations and, if so, what are those steps and how likely does it believe that they will be successful?
Answer:	The Board regularly evaluates market appetite for equity financing and believes that the Company will be able to continue to access funding as required. The second tranche of the capital raise announced in September was approved by shareholders in October. In addition to traditional capital markets, the Company has entered into a farm out agreement with Helium One Global Ltd allowing it to reduce the cash required to fund its operations. As part consideration upon closing of the farmin agreement the Company will receive a US$1.5 million payment
8.8.3	Does the entity expect to be able to continue its operations and to meet its business objectives and, if so, on what basis?
Answer:	Yes, with the new farmin agreement and continued access to funding, the Company expects to be able to meet its business objectives.

Note: where item 8.7 is less than 2 quarters, all of questions 8.8.1, 8.8.2 and 8.8.3 above must be answered.

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: 30 October 2024

Authorised by: The Board
(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.