

29 January 2020

## Activities Report Quarter Ended 31 December 2020

The Board is pleased to provide an update on activities in the quarter to 31 December 2020.

### KEY HIGHLIGHTS

#### Colorado Helium Project

- 28% increase in leasing with Blue Star's land position totalling 215,000 gross (160,000 net) acres at the end of the quarter
  - Greatly consolidating position over targeted drilling prospects
  - Enterprise and Galileo P50 prospective helium resources increased 16% to 3.5 BCF
  - Galactica, Pegasus and Argo prospective helium resources commissioned and due imminently
- Maiden drilling program expanded to 3-5 wells

#### Corporate

- Successful capital raising of \$6million (before costs)
- Cash on hand at the end of the quarter was \$4.91million

### OPERATIONS

#### Maiden Drilling Program – Colorado, USA

In mid-November, the Company announced the expansion of its maiden drilling campaign to a minimum of three wells and up to five wells to test several prospects in its portfolio in addition to Enterprise.

An expanded drilling campaign will maximise the prospective resources tested in the Company's maiden campaign and deliver clear advantages over the previously planned single well at Enterprise.

The US team has completed a further site visit to evaluate a potential follow-up location at Enterprise as well as assess potential well locations at the Galactica, Pegasus, Voyager, and Galileo prospects with permit applications to follow.

Engineering estimates have confirmed dry hole drilling costs of US\$300k with a further US\$100k required to complete the well as a producer upon success.

Subsequent to the end of the quarter, on 15 January 2021, new rules and procedures came into effect in Colorado. COGCC has advised that the Enterprise permit application and all other drilling applications should be submitted as new applications under the new rules. The Company's proposed wells are technically simple being shallow and vertical, low impact due to their rural location and do not have the issues associated with hydrocarbon production. As

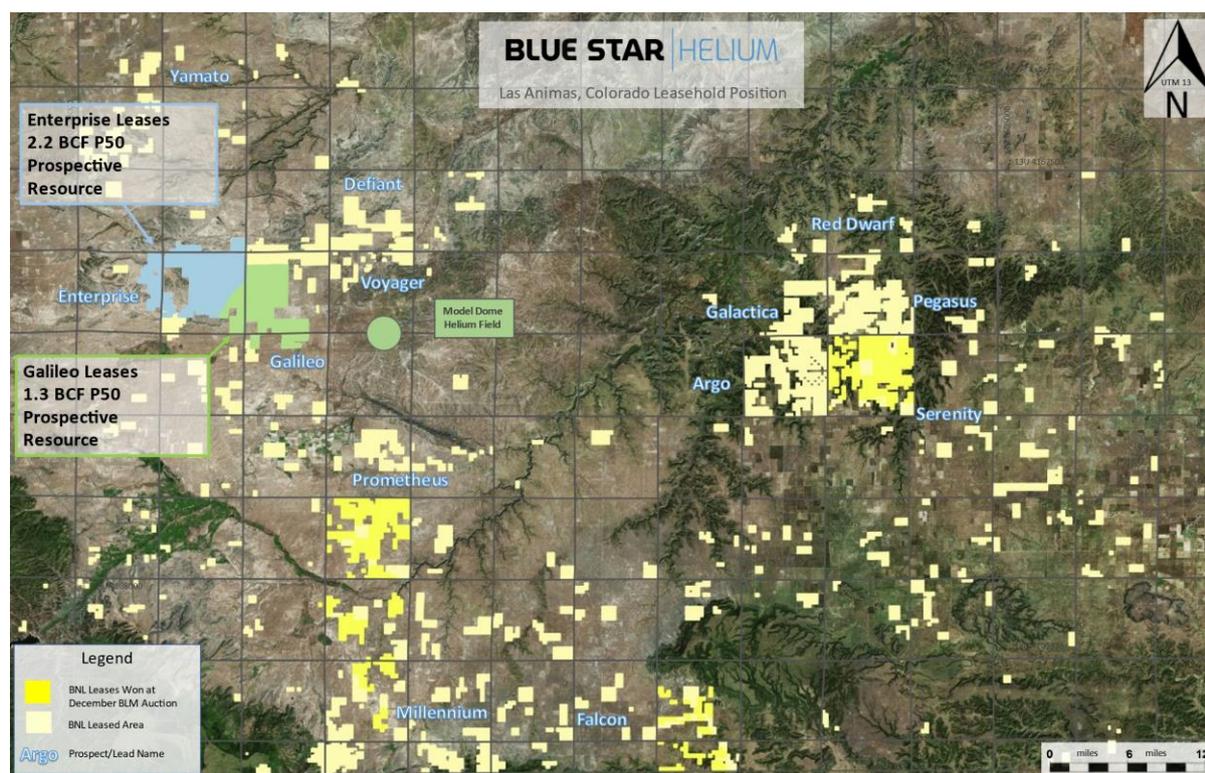
such, we do not expect that the new rules and procedures will materially impact the Company's business.

## Helium Prospects and Leads – Colorado, USA

During the quarter, the Company increased its acreage position by 28% in the highly prospective Las Animas region in Colorado, USA, acquiring

- 32,848 gross (32,848 net) acres for a total of US\$470k at the Federal Bureau of Land Management (BLM) land auction in December. As announced earlier today, the Company is investigating the impact of the recent executive order of President Biden and secretarial order of the Secretary of the Interior on the delivery of these leases to the Company. The BLM has previously advised that they expect to deliver them in late February.
- 6,720 gross (6,720 net) acres for a total of US\$70k at the Colorado State land auction.
- More than 11,000 net acres from private mineral owners. The total amount of lease bonuses payable in respect of these new leases was not material to the Company.

The Company's total land position in Las Animas at the end of the quarter totalled 215,000 gross (160,000 net) acres (inclusive of the leases won in the December BLM auction) as shown in the map below.



Blue Star now has high-net contiguous leasing over 7 prospects, including Enterprise, Galileo, Pegasus, Galactica, Argo, Voyager and Prometheus. The Company will choose up to 5 wells to test a number of key prospects for its maiden drilling campaign.

Results from the prospective resource assessments at the highly ranked Galactica, Pegasus and Argo prospects are imminent which will support the prospect selection for drilling.

Customary due diligence continues with respect to the lease position prior to payment of the lease bonus amounts to each lessor. Approximately 600 net acres remain under review as at the date of this report.

Subsequent to the end of the quarter, circa 4,000 net acres of lands in Las Animas were acquired.

Blue Star plans to further add to its gross and net position over preferred prospects in Las Animas County.

### Enterprise and Galileo Prospective Resources Update

The prospective helium resources independently assessed at the Enterprise and Galileo prospects were increased by 16% to 2U (P50) 3.5 BCF of total net recoverable helium as announced on 16 November 2020.

The updated assessment of the Enterprise and Galileo prospects accounts for material additional leased acreage acquired since the first assessment (announced 27 May 2020) as well as a general audit of the calculations by independent global consultants Sproule.

<b>Net Recoverable Helium (mmcf)</b>	<b>1U (P90)</b>	<b>2U (P50)</b>	<b>3U (P10)</b>
<b>Enterprise Prospect</b>	372	2,204	5,494
<b>Galileo Prospect</b>	495	1,292	2,329
<b>Total Net Recoverable Helium</b>	867	3,497	7,823

Note 1: The estimated quantities of helium that may potentially be recovered by the application of a future development project relate to undiscovered accumulations. These estimates have both an associated risk of discovery and a risk of development. Further exploration appraisal and evaluation is required to determine the existence of a significant quantity of potentially moveable helium.

Note 2: The resource estimates have been prepared using the probabilistic method and are presented on an unrisked basis. In a probabilistic resource distribution, 1U (P90), 2U (P50), 3U (P10) estimates represent the 90% probability, 50% probability and 10% probability respectively that the quantity recovered will equal or exceed the estimate assuming a success case in the prospect. Resource totals have been arithmetically added.

Note 3: The resource estimates are reported as at an evaluation date of 1 November 2020.

Note 5: The resource estimates are presented on a net entitlements basis and represent Blue Star's net economic interest in the prospective recoverable helium volumes after deductions for the volume weighted royalty burden in accordance with the methodology described in Schedule A.

Note 5: The resource estimates referred to in this table were first announced in the Company's announcement of 16 November 2020.

Note 6: The Company is not aware of any new information or data that materially affects the information included in the announcement of 16 November 2020 and all the material assumptions and technical parameters underpinning the estimates in that announcement continue to apply and have not materially changed except that the Company has acquired additional leases in the prospect areas and any change to the net prospective resource has not yet been assessed.

The prospects are situated in the Lyons Formation Helium Play, which is proven in the area by the historical Model Dome field. As an example, the Hoff Heirs #2 well in the Model Dome field, had a tested production rate from the Lyons Formation of 500 mcf raw gas per day. Petrophysical analysis of surrounding wells in combination with the regional soil gas sampling and geochemical analysis program conducted in 3Q 2019 have proven the play elements of helium charge, high quality reservoir and the presence of a good top seal extend across our Enterprise and Galileo prospects.

Within this proven play fairway, each of the Enterprise and Galileo prospects are subject to independent trap risk. Internal geologic modelling is based on reprocessed gravity and magnetic data, incorporated offset well data and surface and subsurface horizon and fault mapping. The geological chance of success is assessed by the Company to be moderate to high for an exploration target given the proven play elements.

The Company remains positive that, based on the work it has done to date, the chance of development, upon a discovery, is strong.

The Company has identified several development options and held discussions with service providers with a view to selecting a preferred option and supplier. Skid mounted, modular surface processing equipment is readily available with six months' delivery time and may be secured under a rental contract.

This equipment is standard-sized at 2 mmcf/d raw gas and would concentrate the helium in the raw gas stream to 98%+ gaseous helium which would then be loaded onto an offtaker's tube trailer for transport to a liquefaction plant or end-user. The Las Animas location is within trucking distance to established liquefaction plants with significant available capacity.

In the event the Company elects this type of rental option for the surface processing equipment, most of the development capital expenditure would be related to drilling and completing development wells. It is estimated that five development wells would be required to supply 2mmcf/d raw gas to fill the processing equipment.

### **New Ventures – Helium**

The Company is focussed on delivering its drilling program in Las Animas, Colorado. The Company continues to review upstream helium opportunities in North America that become available to evaluate any fit with its stated strategy.

### **Big Star Project – Texas, USA**

During the quarter, production continued from the Simmons well. As at the report date, this asset is held for sale. The Stuart, Esmond and Cline wells did not produce in the quarter and remain shut-in.

During the quarter, the Company plugged and abandoned the Esmond well and plans to reclaim the wellsite during the current quarter.

## **CORPORATE**

Blue Star's cash at the end of the December 2020 quarter was approximately \$4.9million.

On 27 November 2020, 171,428,572 new ordinary shares were issued in a capital raising as announced on 20 November 2020. The shares were issued at a placement price of \$0.035 and the Company received proceeds of \$6million (before costs).

750,000 options expiring 31 December 2021 were exercised at \$0.012 per share raising \$9,000 for the Company. The shares were issued on 15 October 2020.

During the quarter, the Federal Court of Australia delivered its decision on proceedings relating to an action taken by the Australian Securities and Investments Commission (“ASIC”) in 2017 against the Company (formerly known as Antares Energy Limited) and its former director, James Cruickshank. The proceedings relate to a period around September 2015 and do NOT relate to the Company’s current board, management or business activities.

ASIC previously agreed not to seek any form of monetary relief (including pecuniary penalties, damages or an account of profit) against Blue Star and the Company took no active part in the proceedings.

## TENEMENT TABLE

Tenements held at the end of the quarter and changes thereof.	Acreage held at the beginning of the Quarter	Acreage held at the end of the Quarter	Acreage acquired (disposed/lapsed)
Project Name			
Held By Production Acreage, Big Star Project, USA	80 acres	80 acres	-
Helium Project, Las Animas, Colorado, USA*	Circa 167,000 gross (109,000 net) acres	Circa 215,000 gross (160,000 net) acres	Circa 48,000 gross acres

## 5B COMMENTARY

Description of Selected Items in Appendix 5B.

Appendix 5B Reference		Commentary
1.2 (c)	Payments for production	Expenditures associated with the Company’s Big Star Project in Texas USA.
1.8	Other	Expenditures associated with the P&A of a legacy oil well in Texas and a prepayment.
2.1 (b)	Payments to acquire tenements	Costs associated with the acquisition of helium leases in Colorado, USA including lease bonuses and 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 (including bonuses) and superannuation paid to directors.

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

**For further information, please contact:**

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[info@bluestarhelium.com](mailto:info@bluestarhelium.com)**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](http://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.

