

## ASX ANNOUNCEMENT

10 June 2025

### HIGHLY SUCCESSFUL GALACTICA DRILLING CAMPAIGN COMPLETE TRANSITIONING TO COMMERCIAL PRODUCTION

#### Highlights

- Successful completion of the 2025 Galactica drilling program, significantly advancing the Galactica/Pegasus helium project.
- Consistent positive results across all 6 wells in the 2025 program underscore the production potential and support near-term monetisation.
- Program results are pivotal for finalising development and commercial production.
- Blue Star is now transitioning the Galactica project into initial commercial production in H2 2025.

Blue Star Helium Limited (ASX:BNL, OTC:BSNLF) (**Blue Star** or the **Company**) is pleased to provide a summary of its highly successful 2025 Galactica drilling program in Las Animas County, Colorado, and to outline the next steps towards bringing these wells into production. This program was a key component of the broader Galactica/Pegasus development strategy, aimed at progressing these significant helium and carbon dioxide discoveries towards commercial production in the near term.

#### Blue Star Managing Director & CEO, Trent Spry, said:

"The 2025 Galactica drilling program has been a resounding success, consistently meeting or exceeding our operational objectives. These strong results across the program have paved the way for our next major milestone: bringing these Galactica wells online and commencing initial production in H2 of this year (2025). This is a pivotal moment for Blue Star as we transition towards becoming a producer of high-value helium."

#### 2025 Galactica Development Drilling Program Overview

The program targeted the highly prospective Lyons Formation and built on the success of the State 16 well drilled in 2024 (see BNL ASX announcement *Significant Helium Discovery at State 16 Well* dated 4 June 2024). The completion of this six well development programme is a key component of the broader Galactica-Pegasus Project development strategy aimed at progressing the helium and CO<sub>2</sub> discoveries to near-term commercial production.

The program, undertaken in joint venture with Helium One Global Ltd, has delivered encouraging results, consistently encountering good helium concentrations in the target formation and demonstrating promising flow potential establishing a broad resource base across the Galactica development area.

The Galactica production wells available for tie-in are summarised below:

#### **GALACTICA PROJECT (Las Animas County, CO)**

<b>Well Name</b>	<b>Results Announcement</b>	<b>He Concentration %</b>	<b>CO2 Concentration %</b>	<b>Projected Initial Stabilised Flow Rate Mcfd</b>	<b>Max Projected Flow Rate Mcfd</b>
State 16 SWSE 3054	1-Jul-24	2.17*	61.56*	250-350	441
Jackson 31 SENW 3054	14-Mar-25	2.20	69.00	300-400	500
Jackson 4 L4 3154	1-Apr-25	1.18	85.93	250-350	450
Jackson 29 SWNW 3054	22-Apr-25	3.30	48.66	350-450	550
Jackson 27 SESW 3054	30-Apr-24	0.41	98.31	350-450	550
Jackson 2 L4 3154	15-May-24	1.22	77.77	300-400	500
State 9 SWSE 3054	9-Jun-24	1.52	80.48	400-500	600

\* State 16 SWSE 3054 reported on 6-Mar-2025

### **Next Steps: Finalising Development Planning and Commercial Production**

Following the successful conclusion of the 2025 drilling campaign, Blue Star and its joint venture partner are now focused on rapidly advancing the Galactica development into initial commercial production from the Pinon Canyon Plant.

#### **Initial Commercial Production: Pinon Canyon Plant (Target: H2 2025)**

The primary target is to commence initial commercial helium production in H2 2025 from the Pinon Canyon Plant. This will be achieved by tying in the initial group of producing wells to this helium and CO<sub>2</sub> processing plant.

Key activities to achieve this H2 2025 production target include:

1. **Finalising Plant Design:** Engineering design studies for the Pinon Canyon Plant are advancing with flow data and gas analysis from the recently completed drilling campaign being integrated. The final design of the helium and CO<sub>2</sub> processing plant will be determined once all the gas analysis and flow modelling has been completed.
2. **Site Development:** Civil works will commence at the approved Pinon Canyon Plant location (see BNL ASX announcement *Las Animas County Approves Plant Construction Permit* dated 22 April 2025) once the final plant layout is determined.
3. **Equipment Mobilisation:** Following site preparations, mobilisation of the plant equipment to the Pinon Canyon site will be undertaken.
4. **Well Tie-Ins and Compression:** Tie-in of initial production wells, including any necessary well-site gas compression, will occur alongside plant site civil works.
5. **Commissioning:** Upon completion of the Pinon Canyon Facility and individual well tie-ins, the plant will be tested and commissioned. This is subject to standard operational permits, environmental compliance, and final readiness assessments.

This initial production phase is designed to provide early cash flow and invaluable operational data, which will be instrumental in optimising full-field development plans for both the Galactica development and the broader Galactica/Pegasus Project.

All production forecasts and commissioning timelines remain subject to final engineering, regulatory approvals, equipment availability, and market conditions.

#### **Phase 2: Expanded Throughput and CO<sub>2</sub> Monetisation**

Following the successful commissioning and ramp-up of initial helium production from the Pinon Canyon Plant, Phase 2 will focus on increasing helium production and monetising CO<sub>2</sub>.

### ***Increasing Helium Production:***

Expanding throughput at the Pinon Canyon Plant by drilling and tying in additional production wells from the Galactica development area.

Beyond the wells planned for initial production, the joint venture has identified an initial additional 6 to 10 infill and expansion drilling locations at Galactica, based on recent results. A further 20 to 30 potential drilling locations have been identified within the greater Galactica-Pegasus Project area.

In addition, to date, all production wells have been completed within the Upper Lyons sandstone. Future infill and expansion drilling will consider strategies for accelerating and optimising production from the Lower Lyons formation, in conjunction with the Upper Lyons formation.

The joint venture is currently evaluating the sequencing and prioritisation of future drilling to maximise efficiency, production scalability, and resource recovery.

### ***CO<sub>2</sub> Monetisation:***

Integrating of additional CO<sub>2</sub> purification and liquefaction at the Pinon Canyon Plant to produce and commercialise the project's significant CO<sub>2</sub> resources. This is expected to require minor additional plant to enable the product to be produced into trailer transport.

### **Marketing and Offtake Strategy**

The joint venture is actively developing its marketing and offtake strategy with a view to establishing operating partners across the entire helium supply chain, securing distribution partners for transportation of both bulk liquid helium (LHe) and gaseous helium (GHe), pursuing direct sales to end-users, targeting buyers who prioritise continuity and security of supply and aiming for long-term agreements designed to navigate helium supply and price cycles effectively.

### **Development Strategy and Future Outlook**

This phased approach allows for efficient capital deployment and leverages early operational learnings from the Pinon Canyon Plant.

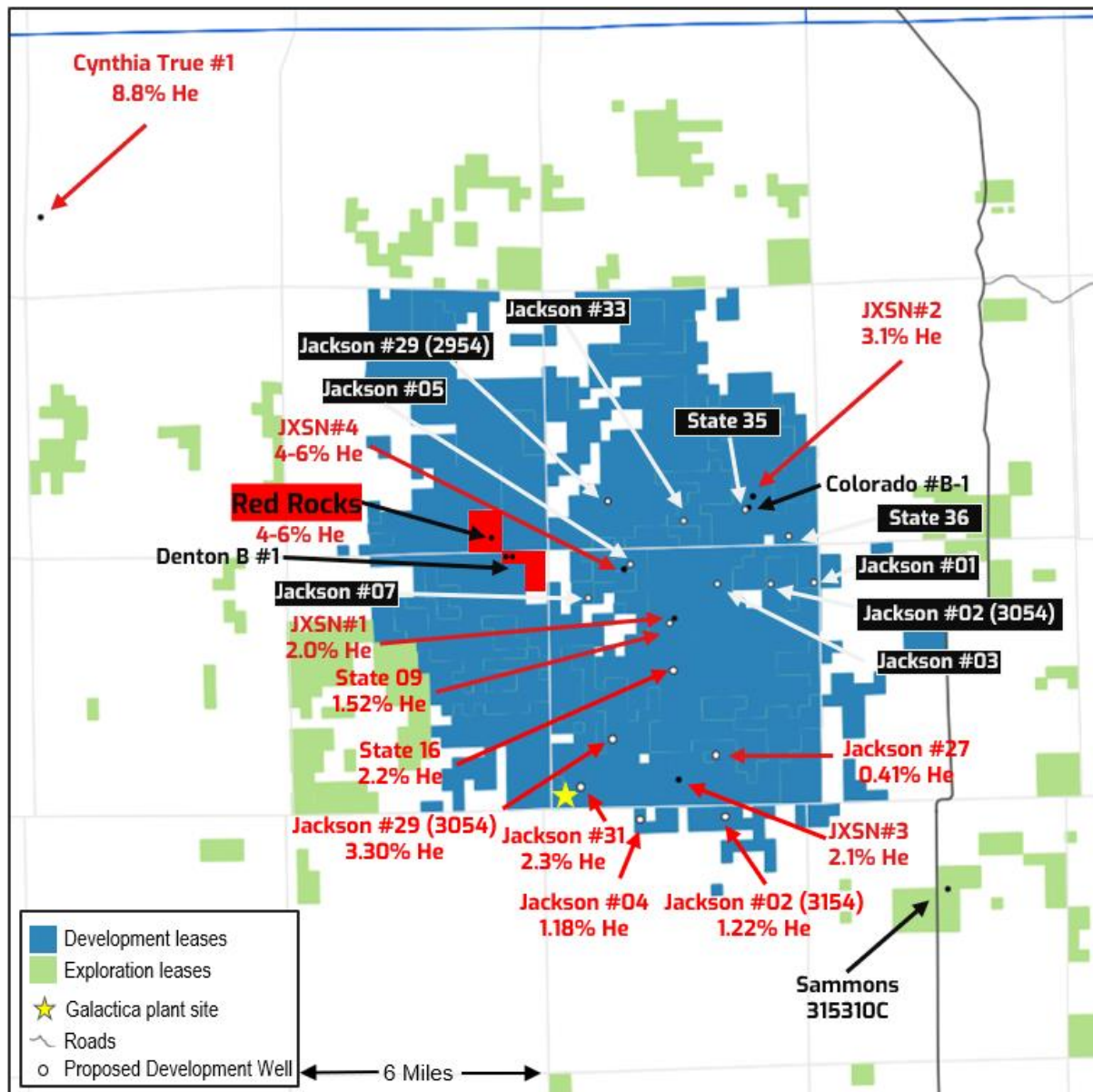
Based on the performance of the Pinon Canyon Plant and ongoing appraisal drilling success, the joint venture will also assess the potential for establishing a second processing facility at a new location to further develop the extensive resources within the Galactica/Pegasus Project area.

Further updates will be provided to the market at key milestones during the development phase.

This announcement has been authorised for release by the Board of Blue Star Helium Limited.

### **For further information, please contact:**

Trent Spry  
Managing Director & CEO  
[info@bluestarhelium.com](mailto:info@bluestarhelium.com)  
+61 8 9481 0389



## Appendix

### Information Required by ASX Listing Rules 5.30

5.30	Rule Summary	Company Statement
(a)	Name and type of well	State 16 SWSE 3054 helium well
(b)	Location of well and details of lease	<p>Location: Section 16 SWSE Township 30 South Range 54 West (see map in this announcement).</p> <p>Lease: Oil and Gas Lease No.112989 between the State of Colorado and Blue Star's wholly owned subsidiary, Las Animas Leasing Inc (LAL). The lease has an effective date of 21 November 2019, the total area of the leases is 640 gross acres (640 net acres), the term is 5 years from the effective date and so long thereafter as gas is produced in paying quantities, the rental is payable annually at a rate of \$2.50 per acre per year, the royalty is 20% and LAL's working interest in the lease is 100%.</p>
(c)	Working Interest	100%
(d)	Net pay (if gross pay reported)	Production hole section from 1,111.5 to 1,211 feet, containing approximately 96 feet of high-quality gas filled sandstone
(e)	Geological rock type of formation	Lyons sandstone
(f)	Depth of zones tested	1,111.5 to 1,211 feet
(g)	Types of tests and duration	Flow tests comprising a 12 hour natural flow period followed by a 12 hour flow period under vacuum compression after which a 48 hour pressure build up was performed.
(h)	Hydrocarbon phases recovered	Nil
(i)	Any other recovery	Helium, carbon dioxide, nitrogen
(j)	Choke size, flow rates and volumes measured	Natural flow at up to 208 Mcfd through a 1" orifice plate, stabilized at 150 Mcfd. Vacuum flow at up to 313 Mcfd through a 1.375" orifice plate, stabilized at 285 Mcfd.
(k)	Pressures associated with flow and duration of test	See announcement text and paragraph (n) below.
(l)	Number of fracture stimulation stages	Nil
(m)	Material volumes of non-hydrocarbon gases	See paragraph (j) above.
(n)	Any other material information	<p>Gas Sample Analysis</p> <p>While flowing gas samples were taken from a 2" nipple directly after the flow meter.</p> <p>The sample analysis was carried out by Gas Analysis Service, Farmington NM using a single thermal conductivity detector (TCD) for gas compositional analysis for the determination of C1-C6+ hydrocarbons, helium, nitrogen and CO2 adopted from Gas Processors Association standard 2261-00. Concentrations of the compounds are measured using thermal conductivity detectors using ultra-high purity hydrogen as a carrier gas.</p>

		<p>A number of secondary samples were also sent to Dolan Integration Group of 11025 Dover Street, Suite 800, Westminster, Colorado, for cross calibration.</p> <p>Gas compositional analysis methodology for the determination of C1-C6+ hydrocarbons and permanent gases (nitrogen, oxygen, argon, carbon dioxide, helium and hydrogen) are adopted from Gas Processors Association standard 2261-00. Concentrations of the compounds are measured using an Agilent 7890 gas chromatograph equipped with dual thermal conductivity detectors (TCD), each of which uses either ultra-high purity hydrogen or nitrogen as a carrier gas.</p> <p>The laboratory reports un-normalized concentrations in parts per million (ppm). The laboratory runs multiple mixed calibration gases with each sample, so it has multi-point calibration curves for each compound reported.</p> <p>Flow Testing</p> <p>Flow tests were conducted with a ABB XFC 6413 Total Flow Meter using AGA 1992 calculation method . Flow rate calculations used an assumed gas gravity of 1.3 (37.661 molecular weight) based on offset wells and a pressure base of 14.7 psia. Natural flow tests were conducted over a 12 hour period flowing through a 1" orifice plate to atmospheric pressure. Vacuum flow tests were conducted over a 12 hour period flowing through a 1.375" orifice plate to atmospheric pressure.</p> <p>In this announcement, Mcfd means thousand standard cubic feet per day.</p> <p>The information in this table applies to the procedures and results referred to in the original State 16 well results announcement of 4 June 2024 and to the announcement of 6 March 2025 subject to the comments in the following paragraphs.</p> <p>The new samples were taken from a 2" nipple directly from the wellhead. The sample analysis was carried out by Gas Analysis Service, Farmington NM using a single thermal conductivity detector (TCD) for gas compositional analysis for the determination of C1-C6+ hydrocarbons, helium, nitrogen and CO2 adopted from Gas Processors Association standard 2261-00. Concentrations of the compounds are measured using thermal conductivity detectors using ultra-high purity hydrogen as a carrier gas.</p> <p>Independent Project Engineering Analysis of Flow Potential (referred to in this announcement as the <b>Engineering Study</b>)</p>
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		<p>On 1 July 2024 (see BNL ASX announcement of 1 July 2024, State 16 Well Status and Development Update) the Company announced the results of its independent engineering analysis of the wells drilled across the Galactica / Pegasus project establishing maximum stabilised rates and drawdown that will be modelled for incorporation into development planning and economics for the project.</p> <p>At the time the State 16 well results were integrated with the test data from the JXSN#1, JXSN#2, JXSN#3 and JXSN#4 discovery wells drilled by Blue Star and compared to the public information available from the adjacent Red Rocks development.</p> <p>Results show the range of permeabilities calculated in the JXSN discovery wells and State 16 well is 300 to 750 mD which would result in initial flow rates at 6 psia wellhead pressure of between 334 and 780 Mscfd, and that at the State 16 well the calculated permeability for the Lyons formation is 405 mD, with a producing wellhead pressure of 6 psia the well would be capable of 441 Mscfd.</p> <p>As part of the development planning various vacuum compression will be 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.</p> <p>The State 16 well has shown a natural flow rate of approximately 150 Mcfd. 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.</p>
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5.30	Rule Summary	Company Statement
(a)	Name & type of well	Jackson 31 SENW 3054 helium development well
(b)	Location of well and permit details	<p>Location: Section 31 SENW Township 30 South Range 54 West (see map in this announcement).</p> <p>Mineral Lease: Oil and gas lease between a private mineral owner and Blue Star's wholly owned subsidiary, Las Animas Leasing Inc (LAL). The lease has an effective date of 22 January 2022, the total area of the lease is 4,895 acres, the term is 5 years from the effective date and so long thereafter as gas is produced in paying quantities, and the royalty is 17.5%.</p>
(c)	Working interest in well	50% (see BNL announcement dated 28 August 2024 <i>Helium One Farms into Galactica / Pegasus Project</i> )

(d)	Net pay	Production hole section from 1,153 to 1,210 feet, containing approximately 57 feet of high-quality gas filled sandstone and remains open at depth.
(e)	Geological rock type drilled	Lyons Formation
(f)	Depth of zones tested	1,153 to 1,210 feet
(g)	Test types	Flow tests were conducted with an orifice plate tester directly off of the well-head (more details below).
(h)	Hydrocarbon phases recovered	Nil
(i)	Other recovery	Helium, carbon dioxide, nitrogen
(j)	Choke size etc	Natural flow at up to 240 Mcfd through a 1.25" orifice plate.
(k)	Pressures etc	See announcement text and paragraph (n) below.
(l)	No. of fracture stimulation stages	Nil
(m)	Other volumes	See paragraph (j) above.
(n)	Other information	<p>Gas Sample Analysis</p> <p>While flowing gas samples were taken from a 2" nipple directly off the well-head.</p> <p>The sample analysis was carried out by Gas Analysis Service, Farmington NM using a single thermal conductivity detector (TCD) for gas compositional analysis for the determination of C1-C6+ hydrocarbons, helium, nitrogen and CO2 adopted from Gas Processors Association standard 2261-00. Concentrations of the compounds are measured using thermal conductivity detectors using ultra-high purity hydrogen as a carrier gas.</p> <p>A number of secondary samples were also sent to Dolan Integration Group of 11025 Dover Street, Suite 800, Westminster, Colorado, for cross calibration.</p> <p>Gas compositional analysis methodology for the determination of C1-C6+ hydrocarbons and permanent gases (nitrogen, oxygen, argon, carbon dioxide, helium and hydrogen) are adopted from Gas Processors Association standard 2261-00. Concentrations of the compounds are measured using an Agilent 7890 gas chromatograph equipped with dual thermal conductivity detectors (TCD), each of which uses either ultra-high purity hydrogen or nitrogen as a carrier gas.</p> <p>The laboratory reports un-normalized concentrations in parts per million (ppm). The laboratory runs multiple mixed calibration gases with each sample, so it has multi-point calibration curves for each compound reported.</p> <p>Flow Testing</p>



		<p>Flow tests were conducted with an orifice plate tester. Specific gravity of the gas was calculated using data obtained from Gas Analysis Services (GAS) (gas gravity of 1.35; 39.096 molecular weight). Tests were conducted over a multiple 15 min (until stabilised flow was established) periods over a number of days flowing through a 1.25" orifice plate to atmospheric pressure at approximately 60° F.</p> <p>Independent Project Engineering Analysis of Flow Potential (referred to in this announcement as the <b>Engineering Study</b>)</p> <p>On 1 July 2024 (see BNL ASX announcement of 1 July 2024, State 16 Well Status and Development Update) the Company announced the results of its independent engineering analysis of the wells drilled across the Galactica / Pegasus project establishing maximum stabilised rates and drawdown that will be modelled for incorporation into development planning and economics for the project.</p> <p>At the time the State 16 well results were integrated with the test data from the JXSN#1, JXSN#2, JXSN#3 and JXSN#4 discovery wells drilled by Blue Star and compared to the public information available from the adjacent Red Rocks development.</p> <p>Results show the range of permeabilities calculated in the JXSN discovery wells and State 16 well is 300 to 750 mD which would result in initial flow rates at 6 psia wellhead pressure of between 334 and 780 Mscfd, and that at the State 16 well the calculated permeability for the Lyons formation is 405 mD, with a producing wellhead pressure of 6 psia the well would be capable of 441 Mscfd.</p> <p>As part of the development planning various vacuum compression will be 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.</p> <p>The Jackson 31 well has shown a natural flow rate of approximately 250 Mcfd which compares favourably to the State 16 well which showed a sustained natural flow rate of 150 Mscfd. Given the higher natural flow at Jackson 31, due to greater permeability in the high-quality Lyons sand, and the Engineering Study, projected potential stabilized flow rates, constrained for production optimization, are expected to be 300-400 Mscfd with a maximum potential rate of 500 Mscfd.</p> <p>.</p> <p>In this announcement, Mcfd means thousand standard cubic feet per day.</p>
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5.30	Rule Summary	Company Statement
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(a)	Name & type of well	Jackson 4 L4 3154 helium development well
(b)	Location of well and permit details	<p>Location: Section 4 L4 in Township 30 South Range 54 West (see map in this announcement).</p> <p>Mineral Lease: Oil and gas lease between a private mineral owner and Blue Star's wholly owned subsidiary, Las Animas Leasing Inc (LAL). The lease has an effective date of 22 January 2022, the total area of the lease is 4,895 acres, the term is 5 years from the effective date and so long thereafter as gas is produced in paying quantities, and the royalty is 17.5%.</p>
(c)	Working interest in well	50% (see BNL announcement dated 28 August 2024 <i>Helium One Farms into Galactica / Pegasus Project</i> )
(d)	Net pay	Production hole section from 1,198 to 1,260 feet, containing approximately 62 feet of high-quality gas filled sandstone and remains open at depth.
(e)	Geological rock type drilled	Lyons Formation
(f)	Depth of zones tested	1,198 to 1,260 feet
(g)	Test types	Flow tests were conducted with an orifice plate tester directly off of the well-head (more details below).
(h)	Hydrocarbon phases recovered	Nil
(i)	Other recovery	Helium, carbon dioxide, nitrogen
(j)	Choke size etc	Natural flow at up to 190 Mcfd through a 1.25" orifice plate.
(k)	Pressures etc	See announcement text and paragraph (n) below.
(l)	No. of fracture stimulation stages	Nil
(m)	Other volumes	See paragraph (j) above.
(n)	Other information	<p>Gas Sample Analysis</p> <p>While flowing gas samples were taken from a 2" nipple directly off the well-head.</p> <p>The sample analysis was carried out by Gas Analysis Service, Farmington NM using a single thermal conductivity detector (TCD) for gas compositional analysis for the determination of C1-C6+ hydrocarbons, helium, nitrogen and CO2 adopted from Gas Processors Association standard 2261-00. Concentrations of the compounds are measured using thermal conductivity detectors using ultra-high purity hydrogen as a carrier gas.</p> <p>A number of secondary samples were also sent to Dolan Integration Group of 11025 Dover Street, Suite 800, Westminster, Colorado, for cross calibration.</p> <p>Gas compositional analysis methodology for the determination of C1-C6+ hydrocarbons and permanent gases (nitrogen, oxygen, argon, carbon dioxide, helium and hydrogen) are adopted from Gas Processors Association standard 2261-00. Concentrations of</p>

	<p>the compounds are measured using an Agilent 7890 gas chromatograph equipped with dual thermal conductivity detectors (TCD), each of which uses either ultra-high purity hydrogen or nitrogen as a carrier gas.</p> <p>The laboratory reports un-normalized concentrations in parts per million (ppm). The laboratory runs multiple mixed calibration gases with each sample, so it has multi-point calibration curves for each compound reported.</p> <p>Flow Testing</p> <p>Flow tests were conducted with an orifice plate tester. Specific gravity of the gas was calculated using data obtained from Gas Analysis Services (GAS) (gas gravity of 1.43; 41.413 molecular weight). Tests were conducted over a multiple 15 min (until stabilised flow was established) periods over a number of days flowing through a 1.25" orifice plate to atmospheric pressure at approximately 60° F.</p> <p>Independent Project Engineering Analysis of Flow Potential (referred to in this announcement as the <b>Engineering Study</b>)</p> <p>On 1 July 2024 (see BNL ASX announcement of 1 July 2024, State 16 Well Status and Development Update) the Company announced the results of its independent engineering analysis of the wells drilled across the Galactica / Pegasus project establishing maximum stabilised rates and drawdown that will be modelled for incorporation into development planning and economics for the project.</p> <p>At the time the State 16 well results were integrated with the test data from the JXSN#1, JXSN#2, JXSN#3 and JXSN#4 discovery wells drilled by Blue Star and compared to the public information available from the adjacent Red Rocks development.</p> <p>Results show the range of permeabilities calculated in the JXSN discovery wells and State 16 well is 300 to 750 mD which would result in initial flow rates at 6 psia wellhead pressure of between 334 and 780 Mscfd, and that at the State 16 well the calculated permeability for the Lyons formation is 405 mD, with a producing wellhead pressure of 6 psia the well would be capable of 441 Mscfd.</p> <p>As part of the development planning various vacuum compression will be 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.</p> <p>The Jackson 4 well has shown a natural flow rate of approximately 250 Mcfd which compares favourably to the State 16 well which showed a sustained natural flow rate of 150 Mscfd.</p> <p>Given the higher natural flow at Jackson 4, due to greater permeability in the high-quality Lyons sand, and the Engineering Study, projected potential stabilized flow rates, constrained for</p>
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		<p>production optimization, are expected to be 250-350 Mscfd with a maximum potential rate of 450 Mscfd.</p> <p>In this announcement, Mcfd means thousand standard cubic feet per day.</p>
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5.30	Rule Summary	Company Statement
(a)	Name & type of well	Jackson 29 SWNW 3054 helium development well
(b)	Location of well and permit details	<p>Location: Section 29 in Township 30 South Range 54 West (see map in this announcement).</p> <p>Mineral Lease: Oil and gas lease between a private mineral owner and Blue Star's wholly owned subsidiary, Las Animas Leasing Inc (LAL). The lease has an effective date of 22 January 2022, the total area of the lease is 4,895 acres, the term is 5 years from the effective date and so long thereafter as gas is produced in paying quantities, and the royalty is 17.5%.</p>
(c)	Working interest in well	50% (see BNL announcement dated 28 August 2024 <i>Helium One Farms into Galactica / Pegasus Project</i> )
(d)	Net pay	Production hole section from 1,122 to 1,183 feet, containing approximately 61 feet of high-quality gas filled sandstone and remains open at depth.
(e)	Geological rock type drilled	Lyons Formation
(f)	Depth of zones tested	1,122 to 1,183 feet
(g)	Test types	Flow tests were conducted with an orifice plate tester directly off of the well-head (more details below).
(h)	Hydrocarbon phases recovered	Nil
(i)	Other recovery	Helium, carbon dioxide, nitrogen
(j)	Choke size etc	Natural flow at up to 190 Mcfd through a 1.25" orifice plate.
(k)	Pressures etc	See announcement text and paragraph (n) below.
(l)	No. of fracture stimulation stages	Nil
(m)	Other volumes	See paragraph (j) above.
(n)	Other information	<p>Gas Sample Analysis</p> <p>While flowing gas samples were taken from a 2" nipple directly off the well-head.</p> <p>The sample analysis was carried out by Gas Analysis Service, Farmington NM using a single thermal conductivity detector (TCD) for gas compositional analysis for the determination of C1-C6+ hydrocarbons, helium, nitrogen and CO2 adopted from Gas</p>

		<p>Processors Association standard 2261-00. Concentrations of the compounds are measured using thermal conductivity detectors using ultra-high purity hydrogen as a carrier gas.</p> <p>A number of secondary samples were also sent to EMPACT Analytical Systems, Inc. Address: 365 S. Main Street, Brighton, Colorado. EMPACT uses a two TCD GC system with Ultra High Purity (UHP) carrier gases. Natural Gas Analysis is performed to GPA 2261 and ASTM D1945 standards.</p> <p>Flow Testing</p> <p>Flow tests were conducted with an orifice plate tester. Specific gravity of the gas was calculated using data obtained from Gas Analysis Services (GAS) (gas gravity of 1.43; 41.413 molecular weight). Tests were conducted over a multiple 15 min (until stabilised flow was established) periods over a number of days flowing through a 1.25" orifice plate to atmospheric pressure at approximately 60° F.</p> <p>Independent Project Engineering Analysis of Flow Potential (referred to in this announcement as the Engineering Study)</p> <p>On 1 July 2024 (see BNL ASX announcement of 1 July 2024, State 16 Well Status and Development Update) the Company announced the results of its independent engineering analysis of the wells drilled across the Galactica / Pegasus project establishing maximum stabilised rates and drawdown that will be modelled for incorporation into development planning and economics for the project.</p> <p>At the time the State 16 well results were integrated with the test data from the JXSN#1, JXSN#2, JXSN#3 and JXSN#4 discovery wells drilled by Blue Star and compared to the public information available from the adjacent Red Rocks development.</p> <p>Results show the range of permeabilities calculated in the JXSN discovery wells and State 16 well is 300 to 750 mD which would result in initial flow rates at 6 psia wellhead pressure of between 334 and 780 Mscfd, and that at the State 16 well the calculated permeability for the Lyons formation is 405 mD, with a producing wellhead pressure of 6 psia the well would be capable of 441 Mscfd.</p> <p>As part of the development planning various vacuum compression will be 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.</p> <p>The Jackson 29 well has shown a natural flow rate of approximately 250 Mcfd which compares favourably to the State 16 well which showed a sustained natural flow rate of 150 Mscfd.</p> <p>Given the higher natural flow at Jackson 29, due to greater permeability in the high-quality Lyons sand, and the Engineering Study, projected potential stabilized flow rates, constrained for production optimization, are expected to be 250-350 Mscfd with a maximum potential rate of 450 Mscfd.</p>
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		In this announcement, Mcfd means thousand standard cubic feet per day.
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5.30	Rule Summary	Company Statement
(a)	Name & type of well	Jackson 27 SESW 3054 helium development well
(b)	Location of well and permit details	Location: Section 27 SESW in Township 30 South Range 54 West (see map in this announcement). Mineral Lease: Oil and gas lease between a private mineral owner and Blue Star's wholly owned subsidiary, Las Animas Leasing Inc (LAL). The lease has an effective date of 22 January 2022, the total area of the lease is 4,895 acres, the term is 5 years from the effective date and so long thereafter as gas is produced in paying quantities, and the royalty is 17.5%.
(c)	Working interest in well	50% (see BNL announcement dated 28 August 2024 <i>Helium One Farms into Galactica / Pegasus Project</i> )
(d)	Net pay	Production hole section from 1,123 to 1,183 feet, containing approximately 61 feet of high-quality gas filled sandstone and remains open at depth.
(e)	Geological rock type drilled	Lyons Formation
(f)	Depth of zones tested	1,123 to 1,183 feet
(g)	Test types	Flow tests were conducted with an orifice plate tester directly off of the well-head (more details below).
(h)	Hydrocarbon phases recovered	Nil
(i)	Other recovery	Helium, carbon dioxide, nitrogen
(j)	Choke size etc	Natural flow at up to 190 Mcfd through a 1.25" orifice plate.
(k)	Pressures etc	See announcement text and paragraph (n) below.
(l)	No. of fracture stimulation stages	Nil
(m)	Other volumes	See paragraph (j) above.
(n)	Other information	Gas Sample Analysis While flowing gas samples were taken from a 2" nipple directly off the well-head.  The sample analysis was carried out by Gas Analysis Service, Farmington NM using a single thermal conductivity detector (TCD) for gas compositional analysis for the determination of C1-C6+ hydrocarbons, helium, nitrogen and CO2 adopted from Gas Processors Association standard 2261-00. Concentrations of the



		<p>compounds are measured using thermal conductivity detectors using ultra-high purity hydrogen as a carrier gas.</p> <p>A number of secondary samples were also sent to EMPACT Analytical Systems, Inc. Address: 365 S. Main Street, Brighton, Colorado. EMPACT uses a two TCD GC system with Ultra High Purity (UHP) carrier gases. Natural Gas Analysis is performed to GPA 2261 and ASTM D1945 standards.</p> <p>Flow Testing</p> <p>Flow tests were conducted with an orifice plate tester. Specific gravity of the gas was calculated using data obtained from Gas Analysis Services (GAS) (gas gravity of 1.43; 41.413 molecular weight). Tests were conducted over a multiple 15 min (until stabilised flow was established) periods over a number of days flowing through a 1.25" orifice plate to atmospheric pressure at approximately 60° F.</p> <p>Independent Project Engineering Analysis of Flow Potential (referred to in this announcement as the Engineering Study)</p> <p>On 1 July 2024 (see BNL ASX announcement of 1 July 2024, State 16 Well Status and Development Update) the Company announced the results of its independent engineering analysis of the wells drilled across the Galactica / Pegasus project establishing maximum stabilised rates and drawdown that will be modelled for incorporation into development planning and economics for the project.</p> <p>At the time the State 16 well results were integrated with the test data from the JXSN#1, JXSN#2, JXSN#3 and JXSN#4 discovery wells drilled by Blue Star and compared to the public information available from the adjacent Red Rocks development.</p> <p>Results show the range of permeabilities calculated in the JXSN discovery wells and State 16 well is 300 to 750 mD which would result in initial flow rates at 6 psia wellhead pressure of between 334 and 780 Mscfd, and that at the State 16 well the calculated permeability for the Lyons formation is 405 mD, with a producing wellhead pressure of 6 psia the well would be capable of 441 Mscfd.</p> <p>As part of the development planning various vacuum compression will be 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.</p> <p>The Jackson 27 well has shown a natural flow rate of approximately 250 Mcfd which compares favourably to the State 16 well which showed a sustained natural flow rate of 150 Mscfd.</p> <p>Given the higher natural flow at Jackson 27, due to greater permeability in the high-quality Lyons sand, and the Engineering Study, projected potential stabilized flow rates, constrained for production optimization, are expected to be 250-350 Mscfd with a maximum potential rate of 450 Mscfd.</p>
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		In this announcement, Mcfd means thousand standard cubic feet per day.
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5.30	Rule Summary	Company Statement
(a)	Name & type of well	Jackson 2 L4 3154 helium development well
(b)	Location of well and permit details	<p>Location: Section 2 L4 in Township 31 South Range 54 West (see map in this announcement).</p> <p>Mineral Lease: Oil and gas lease between a private mineral owner and Blue Star's wholly owned subsidiary, Las Animas Leasing Inc (LAL). The lease has an effective date of 22 January 2022, the total area of the lease is 5,454 acres, the term is 5 years from the effective date and so long thereafter as gas is produced in paying quantities, and the royalty is 17.5%.</p>
(c)	Working interest in well	50% (see BNL announcement dated 28 August 2024 <i>Helium One Farms into Galactica / Pegasus Project</i> )
(d)	Net pay	Production hole section from 1,159 to 1,232 feet, containing approximately 73 feet of high-quality gas filled sandstone and remains open at depth.
(e)	Geological rock type drilled	Lyons Formation
(f)	Depth of zones tested	1,159 to 1,232 feet
(g)	Test types	Flow tests were conducted with an orifice plate tester directly off of the well-head (more details below).
(h)	Hydrocarbon phases recovered	Nil
(i)	Other recovery	Helium, carbon dioxide, nitrogen
(j)	Choke size etc	Natural flow at up to 250 Mcfd through a 1.25" orifice plate.
(k)	Pressures etc	See announcement text and paragraph (n) below.
(l)	No. of fracture stimulation stages	Nil
(m)	Other volumes	See paragraph (j) above.
(n)	Other information	<p>Gas Sample Analysis</p> <p>While flowing gas samples were taken from a 2" nipple directly off the well-head.</p> <p>The sample analysis was carried out by Gas Analysis Service, Farmington NM using a single thermal conductivity detector (TCD) for gas compositional analysis for the determination of C1-C6+ hydrocarbons, helium, nitrogen and CO2 adopted from Gas Processors Association standard 2261-00. Concentrations of the compounds are measured using thermal conductivity detectors using ultra-high purity hydrogen as a carrier gas.</p>

		<p>A number of secondary samples were also sent to EMPACT Analytical Systems, Inc. Address: 365 S. Main Street, Brighton, Colorado. EMPACT uses a two TCD GC system with Ultra High Purity (UHP) carrier gases. Natural Gas Analysis is performed to GPA 2261 and ASTM D1945 standards.</p> <p>Flow Testing</p> <p>Flow tests were conducted with an orifice plate tester. Specific gravity of the gas was calculated using data obtained from Gas Analysis Services (GAS) (gas gravity of 1.43; 41.413 molecular weight). Tests were conducted over a multiple 15 min (until stabilised flow was established) periods over a number of days flowing through a 1.25" orifice plate to atmospheric pressure at approximately 60° F.</p> <p>Independent Project Engineering Analysis of Flow Potential (referred to in this announcement as the Engineering Study)</p> <p>On 1 July 2024 (see BNL ASX announcement of 1 July 2024, State 16 Well Status and Development Update) the Company announced the results of its independent engineering analysis of the wells drilled across the Galactica / Pegasus project establishing maximum stabilised rates and drawdown that will be modelled for incorporation into development planning and economics for the project.</p> <p>At the time the State 16 well results were integrated with the test data from the JXSN#1, JXSN#2, JXSN#3 and JXSN#4 discovery wells drilled by Blue Star and compared to the public information available from the adjacent Red Rocks development.</p> <p>Results show the range of permeabilities calculated in the JXSN discovery wells and State 16 well is 300 to 750 mD which would result in initial flow rates at 6 psia wellhead pressure of between 334 and 780 Mscfd, and that at the State 16 well the calculated permeability for the Lyons formation is 405 mD, with a producing wellhead pressure of 6 psia the well would be capable of 441 Mscfd.</p> <p>As part of the development planning various vacuum compression will be 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.</p> <p>The Jackson 2 well has shown a natural flow rate of approximately 250 Mcfd which compares favourably to the State 16 well which showed a sustained natural flow rate of 150 Mscfd.</p> <p>Given the higher natural flow at Jackson 2, due to greater permeability in the high-quality Lyons sand, and the Engineering Study, projected potential stabilized flow rates, constrained for production optimization, are expected to be 250-350 Mscfd with a maximum potential rate of 450 Mscfd.</p>
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5.30	Rule Summary	Company Statement
(a)	Name & type of well	State 9 SWSE 3054 helium development well
(b)	Location of well and permit details	<p>Location: Section 9 SWSE in Township 30 South Range 54 West (see map in this announcement).</p> <p>Mineral Lease: Oil and Gas Lease No.112988 between the State of Colorado and Blue Star's wholly owned subsidiary, Las Animas Leasing Inc (<b>LAL</b>). The lease has an effective date of 21 November 2019, the total area of the leases is 160 gross acres (160 net acres), the term is 5 years from the effective date and so long thereafter as gas is produced in paying quantities, the rental is payable annually at a rate of \$2.50 per acre per year, the royalty is 20% and LAL's working interest in the lease is 100%.</p>
(c)	Working interest in well	50% (see BNL announcement dated 28 August 2024 <i>Helium One Farms into Galactica / Pegasus Project</i> )
(d)	Net pay	Production hole section from 1,165 to 1,225 feet, containing approximately 73 feet of high-quality gas filled sandstone and remains open at depth.
(e)	Geological rock type drilled	Lyons Formation
(f)	Depth of zones tested	1,165 to 1,225 feet
(g)	Test types	Flow tests were conducted with an orifice plate tester directly off of the well-head (more details below).
(h)	Hydrocarbon phases recovered	Nil
(i)	Other recovery	Helium, carbon dioxide, nitrogen
(j)	Choke size etc	Natural flow at over 360 Mcfd through a 1.25" orifice plate.
(k)	Pressures etc	See announcement text and paragraph (n) below.
(l)	No. of fracture stimulation stages	Nil
(m)	Other volumes	See paragraph (j) above.
(n)	Other information	<p>Gas Sample Analysis</p> <p>While flowing gas samples were taken from a 2" nipple directly off the well-head.</p> <p>The sample analysis was carried out by Gas Analysis Service, Farmington NM using a single thermal conductivity detector (TCD) for gas compositional analysis for the determination of C1-C6+ hydrocarbons, helium, nitrogen and CO2 adopted from Gas Processors Association standard 2261-00. Concentrations of the</p>

		<p>compounds are measured using thermal conductivity detectors using ultra-high purity hydrogen as a carrier gas.</p> <p>A number of secondary samples were also sent to EMPACT Analytical Systems, Inc. Address: 365 S. Main Street, Brighton, Colorado. EMPACT uses a two TCD GC system with Ultra High Purity (UHP) carrier gases. Natural Gas Analysis is performed to GPA 2261 and ASTM D1945 standards.</p> <p>Flow Testing</p> <p>Flow tests were conducted with an orifice plate tester. Specific gravity of the gas was calculated using data obtained from Gas Analysis Services (GAS) (gas gravity of 1.43; 41.413 molecular weight). Tests were conducted over a multiple 15 min (until stabilised flow was established) periods over a number of days flowing through a 1.25" orifice plate to atmospheric pressure at approximately 60° F.</p> <p>Independent Project Engineering Analysis of Flow Potential (referred to in this announcement as the Engineering Study)</p> <p>On 1 July 2024 (see BNL ASX announcement of 1 July 2024, State 16 Well Status and Development Update) the Company announced the results of its independent engineering analysis of the wells drilled across the Galactica / Pegasus project establishing maximum stabilised rates and drawdown that will be modelled for incorporation into development planning and economics for the project.</p> <p>At the time the State 16 well results were integrated with the test data from the JXSN#1, JXSN#2, JXSN#3 and JXSN#4 discovery wells drilled by Blue Star and compared to the public information available from the adjacent Red Rocks development.</p> <p>Results show the range of permeabilities calculated in the JXSN discovery wells and State 16 well is 300 to 750 mD which would result in initial flow rates at 6 psia wellhead pressure of between 334 and 780 Mscfd, and that at the State 16 well the calculated permeability for the Lyons formation is 405 mD, with a producing wellhead pressure of 6 psia the well would be capable of 441 Mscfd.</p> <p>As part of the development planning various vacuum compression will be 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.</p> <p>The State 9 well has shown a natural flow rate of approximately 250 Mcfd which compares favourably to the State 16 well which showed a sustained natural flow rate of 150 Mscfd.</p> <p>Given the higher natural flow at State 9, due to greater permeability in the high-quality Lyons sand, and the Engineering Study, projected potential stabilized flow rates, constrained for production optimization, are expected to be 250-350 Mscfd with a maximum potential rate of 450 Mscfd.</p>
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