

**FORM 51-102F3**

**MATERIAL CHANGE REPORT**

***Item 1 Name and Address of Company***

Pulsar Helium Inc. (“**Pulsar**” or the “**Company**”)  
Rua Frederico Arouca, nº 251, 2º frente  
2750-356, Cascais, Portugal

***Item 2 Date of Material Change***

January 19, 2026

***Item 3 News Release***

A news release dated January 19, 2026, was disseminated to the TSX Venture Exchange (the “**TSXV**”) and through various other approved public media and filed on SEDAR+ with applicable securities commissions.

***Item 4 Summary of Material Change(s)***

Pulsar announced that two U.S. Federal laboratories have independently confirmed the helium-3 isotope concentration from the Company’s Topaz helium project in Minnesota, USA. The U.S. Geological Survey (USGS) Noble Gas Laboratory in Denver and Lawrence Livermore National Laboratory (LLNL) in California each analyzed raw gas samples from the Jetstream #1 well, with both labs reporting values closely matching those verified by the Woods Hole Oceanographic Institution (WHOI) (Pulsar news release October 1, 2025), confirming the presence of helium-3 ( $^3\text{He}$ ) in the gas with a concentration range of 11.2-11.9 parts-per-billion (ppb) and associated with 7.7-8.0% helium-4 ( $^4\text{He}$ ), respectively.

***Item 5 Full Description of Material Change***

**5.1 Full Description of Material Change**

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**Highlights:**

Strategic Significance:  $^3\text{He}$  is an exceptionally rare and high-value isotope (~US\$2,500 per liter, or >US\$18 million per kilogram) with applications in neutron detection for nuclear security, low-temperature physics/quantum computing, and potentially as a future fuel for

nuclear fusion reactors. Its global scarcity, and value underscore why the Topaz discovery is seen as strategically important.

Third-Party Confirmation: Independent analyses by two U.S. Federal laboratories at the USGS and LLNL found ~8%  $^4\text{He}$  and a  $^3\text{He}/^4\text{He}$  isotopic ratio of ~0.10  $R_a$  in the Jetstream #1 gas sample, consistent with WHOI's results (7.7%  $^4\text{He}$ ,  $^3\text{He}/^4\text{He} = 0.104 R_a$ ) and confirming a  $^3\text{He}$  concentration of approximately 11.2–11.9 ppb.

- **Consistent Isotopic Signature:** All three laboratories measured essentially the same  $^3\text{He}/^4\text{He}$  ratio (~0.1  $R_a$ , where  $R_a$  is the atmospheric  $^3\text{He}/^4\text{He}$  ratio), indicating highly reproducible data. This aligns with earlier reservoir-wide measurements (~0.09  $R_a$ ) that suggested a single, stable helium source throughout Topaz.

- **Among the Highest Helium-3 Levels on Earth:** The ~11–12 ppb  $^3\text{He}$  confirmed in Topaz's gas ranks among the highest naturally occurring  $^3\text{He}$  concentrations reported in a terrestrial reservoir. Previously, Pulsar reported sustained  $^3\text{He}$  levels up to 14.5 ppb in Jetstream #1, a level comparable to estimates of  $^3\text{He}$  in lunar regolith (~1.4–15 ppb).

- **Rigorous Sampling Methodology:** The verified sample was collected by Pulsar's Scientific Helium-3 Advisor, Dr. Peter Barry of WHOI on December 10, 2025, using the industry-standard copper tube (Cu-tube) sampling method. Gas was continuously purged from the well and trapped in sealed copper tubing every ~40 minutes over the course of the day, yielding 21 discrete samples. One representative Cu-tube sample was then selected for interlaboratory comparison, with aliquots distributed to WHOI, USGS, and LLNL for noble gas isotope analysis. Copper-tube sampling is a widely used technique for noble gases, gas samples for helium isotope analysis are captured in sealed copper tubes that are clamped and taken to the lab to prevent contamination. This rigorous approach ensured that all three labs analyzed identical source material under controlled conditions.

- **Scientific Validation of Topaz Data:** The close agreement of  $^3\text{He}$  results from three separate laboratories (including two U.S. government labs) provides strong third-party validation of Topaz's helium content. All labs reported  $^4\text{He}$  in the 7.7–8.0% range and  $^3\text{He}/^4\text{He}$  ratios ~0.10  $R_a$ , confirming that Pulsar's initial  $^3\text{He}$  discovery data are accurate and reproducible. Such consistency underscores the reliability of the Company's geochemical dataset and bolsters confidence in the significance of the Topaz discovery.

### **Confirmatory Results by USGS and LLNL**

The USGS Noble Gas Lab (Denver) and LLNL both conducted independent analyses on a raw gas sample drawn from the Jetstream #1 well, and each lab's findings closely mirrored the others. WHOI, which had previously analyzed Pulsar's samples, reported 7.7%  $^4\text{He}$  with a  $^3\text{He}/^4\text{He}$  ratio of 0.104  $R_a$ , while the USGS measured  $7.9 \pm 0.2\%$   $^4\text{He}$  with a  $^3\text{He}/^4\text{He}$  of  $0.098 \pm 0.005 R_a$ , and LLNL found 7.9%  $^4\text{He}$  with 0.108  $R_a$ . (for reference,  $R_a$  denotes the  $^3\text{He}/^4\text{He}$  ratio normalized to air's composition.) All three datasets correspond to a helium-3 concentration on the order of 10–8 by volume, i.e. roughly 11–12 parts per billion of the gas. The fact that three separate labs working blind of each other arrived at virtually identical results illustrates the excellent reproducibility of Topaz's  $^3\text{He}$  assay.

This independent verification directly affirms Pulsar's earlier laboratory findings. In the initial discovery phase, gas from Jetstream #1 was analyzed by Smart Gas Sciences (Ohio) and independently verified at WHOI, revealing  $^3\text{He}$  concentrations up to 14.5 ppb.

Those October 2025 results established Topaz as one of the richest terrestrial  $^3\text{He}$  sources on record. Now, the USGS and LLNL have reconfirmed the presence and magnitude of  $^3\text{He}$  in Topaz gas with their own instruments, solidifying the discovery with two additional layers of third-party confirmation. Notably, the  $^3\text{He}/^4\text{He}$  isotopic ratio observed ( $\sim 0.1 R_a$ ) is the same across all samples and labs, reinforcing that the helium at Topaz originates from a single, consistent source in the subsurface. The ability of completely independent laboratories to replicate the  $^3\text{He}$  results gives strong credence to the accuracy and robustness of Pulsar's data.

### **Cu-Tube Sampling Ensures Reliable Data**

A high degree of confidence in these results was achieved through careful sample collection and handling. On December 10, 2025, Dr. Peter Barry (Associate Scientist at WHOI and Pulsar's Scientific Helium-3 Advisor) personally conducted the sampling of gas from Jetstream #1 using the Cu-tube method. In this procedure, gas flowing from the well was continuously purged to remove stagnant fluids, and a series of sealed copper tubes were filled at regular intervals (approximately every 40 minutes) over the course of the day. A total of 21 copper tube samples were collected from morning to afternoon, ensuring a comprehensive representation of the well's gas output under steady-state conditions. Each copper tube was crimped using a specialized clamp immediately after filling, preserving the gas at well pressure in an airtight container. This method is a standard in noble gas geochemistry, for example, USGS scientists collect volcanic gas samples in the field by clamping them into copper tubes, which are then transported to the laboratory for helium isotope analysis. The use of sealed Cu-tubes prevents air ingress or loss of helium, thereby maintaining the integrity of the sample's noble gas content from wellhead to lab.

For the interlaboratory comparison, one representative copper-tube sample (aliquot) was selected and divided among WHOI, USGS, and LLNL. Each lab received an identical portion of gas from this same sample to analyze using its own noble gas mass spectrometry protocols. By distributing aliquots of a single sample, any variability in results would directly reflect analytical differences; instead, all three labs reported the same helium isotope values. This outcome demonstrates not only the precision of each laboratory's measurements, but also the effectiveness of the sampling protocol. The Cu-tube sampling and triple-laboratory analytical approach provided a rigorous check on the data: the concurrence of results across laboratories confirms that Topaz's  $^3\text{He}$  readings are reproducible and not an artifact of any single collection or analysis process. It is a strong validation that the  $^3\text{He}$  enrichment at Topaz is both genuine and consistently measurable.

### **Scientific Validation and Strategic Significance**

The interlaboratory consistency achieved is a scientific validation of the Topaz helium discovery and a milestone for Pulsar's  $^3\text{He}$  program. As previously announced, on October 1, 2025, the Company revealed a landmark discovery of  $^3\text{He}$  at Topaz, with a sample yielding approximately 14.5 ppb  $^3\text{He}$  in produced gas alongside 11.4%  $^4\text{He}$ . Pulsar subsequently appointed Dr. Peter Barry of WHOI as its Scientific Helium-3 Advisor, tasking him with coordinating independent verification of the  $^3\text{He}$  results. The analyses by USGS and LLNL now fulfill that mandate, providing an unequivocal, third-party agreement with the initial findings. In essence, three separate laboratories have drawn the same conclusion: the Topaz reservoir contains  $^3\text{He}$  in concentrations on the order of 10 ppb.

This confirmation elevates the significance of Topaz's discovery on the world stage.  $^3\text{He}$  is an extremely rare isotope, it exists in Earth's atmosphere at only about 7 parts per trillion, and even in the crust it is vanishingly scarce, typically appearing (if at all) in the parts-per-trillion to parts-per-billion range. For context, a recent peer discovery in Australia reported only sub-ppb traces of  $^3\text{He}$ . Topaz's  $^3\text{He}$  content, now rigorously established at ~11 ppb, places it firmly among the highest recorded on Earth. In fact, the Topaz gas sample contains a  $^3\text{He}$  concentration on par with estimates for lunar regolith: NASA and the U.S. Department of Energy have been funding research into extracting  $^3\text{He}$  from Moon rocks (which contain on the order of 1.4 to 15 ppb  $^3\text{He}$ ).  $^3\text{He}$  is coveted for its unique applications, it has a high value (currently around \$2,500 per liter, or \$18+ million per kilogram) due to uses in neutron detection for nuclear security, in low-temperature physics/quantum computing (as a cooling agent in dilution refrigerators), and potentially as a future fuel for nuclear fusion reactors. This rarity and value underscore why the Topaz discovery is seen as strategically important. With  $^3\text{He}$  so scarce globally that governments have historically relied on specialized reactors and advance purchase agreements to obtain it, a domestic natural source of  $^3\text{He}$  in the United States could be of significant scientific and geopolitical value.

### **Next Steps**

With the independent verification now complete, Pulsar will move to capitalize on this momentum. The Company believes that the Topaz  $^3\text{He}$  discovery, now vetted by third parties, represents an opportunity for the Company at a time when  $^3\text{He}$  is in high demand for research, computing and security uses. Management will be reaching out to relevant U.S. Government agencies and departments to explore partnerships, funding, or other forms of participation to advance the Topaz project. Such involvement could range from research collaboration and technology development (for  $^3\text{He}$  extraction and separation) to offtake agreements or strategic investment. Now backed by independent verification, Pulsar is uniquely positioned to present Topaz as a strategic domestic  $^3\text{He}$  asset.

All helium analyses and comparisons reported herein were reviewed by Dr. Barry (WHOI) for accuracy and consistency. The Company thanks the USGS and LLNL teams for their expert contributions to this interlaboratory study.

## **5.2 Disclosure for Restructuring Transactions**

Not applicable.

### ***Item 6 Reliance on subsection 7.1(2) of National Instrument 51-102***

Not applicable.

### ***Item 7 Omitted Information***

None.

### ***Item 8 Executive Officer***

Thomas Abraham-James  
President and Chief Executive Officer  
Telephone: +1 (218) 203-5301

## ***Item 9 Date of Report***

January 26, 2026

### Forward-Looking Statements

This material change report contains forward-looking information within the meaning of Canadian securities legislation (collectively, "forward-looking statements") that relate to the Company's current expectations and views of future events. Any statements that express, or involve discussions as to, expectations, beliefs, plans, objectives, assumptions or future events or performance (often, but not always, through the use of words or phrases such as "will likely result", "are expected to", "expects", "will continue", "is anticipated", "anticipates", "believes", "estimated", "intends", "plans", "forecast", "projection", "strategy", "objective" and "outlook") are not historical facts and may be forward-looking statements. Forward-looking statements herein include, but are not limited to, statements relating to exploring funding and partnership opportunities with the US government, the potential impact of the drill results, the potential of CO<sub>2</sub> and/or Helium-3 as a valuable by-product of the Company's future helium production; and the potential for future wells. Forward-looking statements may involve estimates and are based upon assumptions made by management of the Company, including, but not limited to, the Company's capital cost estimates, management's expectations regarding the availability of capital to fund the Company's future capital and operating requirements and the ability to obtain all requisite regulatory approvals.

No reserves have been assigned in connection with the Company's property interests to date, given their early stage of development. The future value of the Company is therefore dependent on the success or otherwise of its activities, which are principally directed toward the future exploration, appraisal and development of its assets, and potential acquisition of property interests in the future. Un-risked Contingent and Prospective Helium Volumes have been defined at the Topaz Project. However, estimating helium volumes is subject to significant uncertainties associated with technical data and the interpretation of that data, future commodity prices, and development and operating costs. There can be no guarantee that the Company will successfully convert its helium volume to reserves and produce that estimated volume. Estimates may alter significantly or become more uncertain when new information becomes available due to for example, additional drilling or production tests over the life of field. As estimates change, development and production plans may also vary. Downward revision of helium volume estimates may adversely affect the Company's operational or financial performance.

Helium volume estimates are expressions of judgement based on knowledge, experience and industry practice. These estimates are imprecise and depend to some extent on interpretations, which may ultimately prove to be inaccurate and require adjustment or, even if valid when originally calculated, may alter significantly when new information or techniques become available. As further information becomes available through additional drilling and analysis the estimates are likely to change. Any adjustments to volume could affect the Company's exploration and development plans which may, in turn, affect the Company's performance. The process of estimating helium resources is complex and requires significant decisions and assumptions to be made in evaluating the reliability of available geological, geophysical, engineering, and economic data for each property. Different engineers may make different estimates of resources, cash flows, or other variables based on the same available data.

Forward-looking statements are subject to a number of risks and uncertainties, many of which are beyond the Company's control, which could cause actual results and events to differ materially from those that are disclosed in or implied by such forward-looking statements. Such risks and

uncertainties include, but are not limited to, that Pulsar may be unsuccessful in drilling commercially productive wells; the uncertainty of resource estimation; operational risks in conducting exploration, including that drill costs may be higher than estimates ; commodity prices; health, safety and environmental factors; and other factors set forth above as well as risk factors included in the Company's Annual Information Form dated July 31, 2025 for the year ended September 30, 2024 found under Company's profile on [www.sedarplus.ca](http://www.sedarplus.ca).

Forward-looking statements contained in this material change report are as of the date of this material change report, and the Company undertakes no obligation to update or revise any forward-looking statements, whether as a result of new information, future events or otherwise, except as may be required by law. New factors emerge from time to time, and it is not possible for the Company to predict all of them or assess the impact of each such factor or the extent to which any factor, or combination of factors, may cause results to differ materially from those contained in any forward-looking statement. No assurance can be given that the forward-looking statements herein will prove to be correct and, accordingly, investors should not place undue reliance on forward-looking statements. Any forward-looking statements contained in this material change report are expressly qualified in their entirety by this cautionary statement.