

Operational Update and Strategic Assessment Review

Highlights

- **Pioneer refines strategic focus on high-priority assets offering near-term value creation opportunities**, completing a thorough review and reprioritisation of its exploration portfolio to focus on Company projects in USA to enhance exploration efficiency and optimise capital allocation.
- **Skull Creek Uranium Project (Colorado, USA):** Advancing rapidly toward drill-ready status, supported by advanced geological and redox mapping.
 - Detailed geological mapping program completed to define redox fronts and optimise drill-hole design. Notice of Intent (NOI) submission is in progress to permit maiden drilling.
 - Integration of Phase 2 regolith geochemistry will refine drill targeting and program timing.
 - Exploration highlights to date include: high-grade uranium rock chips up to 1,240 ppm U_3O_8 the collection of 843 regolith samples (results pending) from across the 17km project strike, and widespread radiometric anomalies peaking at 10,100 cps (ASX announcement 5 May 2025 and 20 Aug 2025).
 - Perfectly timed with renewed US policy focus on securing domestic uranium supply, supported by recent executive orders aimed at accelerating development and reducing reliance on imports.
- **Warmbad Uranium Project (Namibia):** Hosts an alaskite-style system with a JORC Exploration Target of 22.2–32.1 Mt at 100–120 ppm U_3O_8 , based on over 30,000 m of historic drilling. The project offers strong expansion potential, with regulatory approvals underway and local stakeholder support secured for future exploration.
- **Benham and Root Lake Lithium Projects (Canada):** Well positioned to benefit from the anticipated recovery in lithium markets, with high-grade spodumene pegmatite assets in Ontario, Canada.
- **Gaobis Uranium Project (Namibia):** Pioneer has elected to withdraw from its acquisition of the Gaobis uranium project in Namibia.
- **Botsalano Ring Complex (Botswana):** Granted in July and features a Proterozoic intrusive ring complex with IOCG-style alteration and brecciation. Initial landowner engagement was completed in August to support future exploration access
- **The Company remains committed to evaluating and pursuing new critical minerals with staking opportunities** for the growth strategy.

Pioneer Lithium Limited (ASX: PLN) (“Pioneer” or “the Company”) is pleased to provide an operational update and strategic assessment review of existing projects, the Company's focus and future direction. After internal review and assessment Pioneer sees its priorities and focus on US projects for the near-term growth strategy.

Pioneer's Chief Executive Office, Michael Beven commented:

“The comprehensive assessment affirms our US project is the prime focus with technical, regulatory and logistical progress advancing rapidly. The integration of detailed redox mapping with Phase 2 assays will inform a disciplined decision to drill and the optimal design of the program. While we retain strong positions across lithium and African projects, our near-term focus is where we see the most compelling and achievable value creation for shareholders.”

Skull Creek Uranium Project – Colorado, USA

Pioneer has advanced Skull Creek with concurrent technical and permitting workstreams designed to bring the project to a drill-ready state. The company has completed a detailed geological mapping program in late September which focused on pin pointing oxidised/reduced (redox) fronts that control uranium emplacement; During the program systematic measurement of bedding, dip and dip-direction across key lithologies to optimise collar positions and azimuths along with follow-up investigation of an unresolved radiometric anomaly at the Skyline area. Targeted rock-chip sampling was also conducted alongside the geological mapping with a total of 56 new samples collected which are with ALS for geochemical analysis.

Preparation and submission of a Notice of Intent (NOI) to drill to the BLM is underway. Following receipt of Phase 2 regolith assays and new rock chip samples taken during the recently completed mapping program¹, the Company will determine the decision to drill Skull Creek and define the timing and scope of a maiden drill program.

Skull Creek covers ~15.5 km² and targets uranium within the Sego Sandstone of the Mesa Verde Group, where multiple significant surface radiometric anomalies have been recorded (peak approximately 10,100 counts per second). The geological setting and observed pathfinder associations are consistent with Colorado Plateau style, sandstone-hosted systems.

The mineralisation style at Skull Creek is interpreted to be a Sandstone hosted uranium (roll-front/Colorado Plateau style) with potential ISR relevant redox architecture along oxidised–reduced contacts.

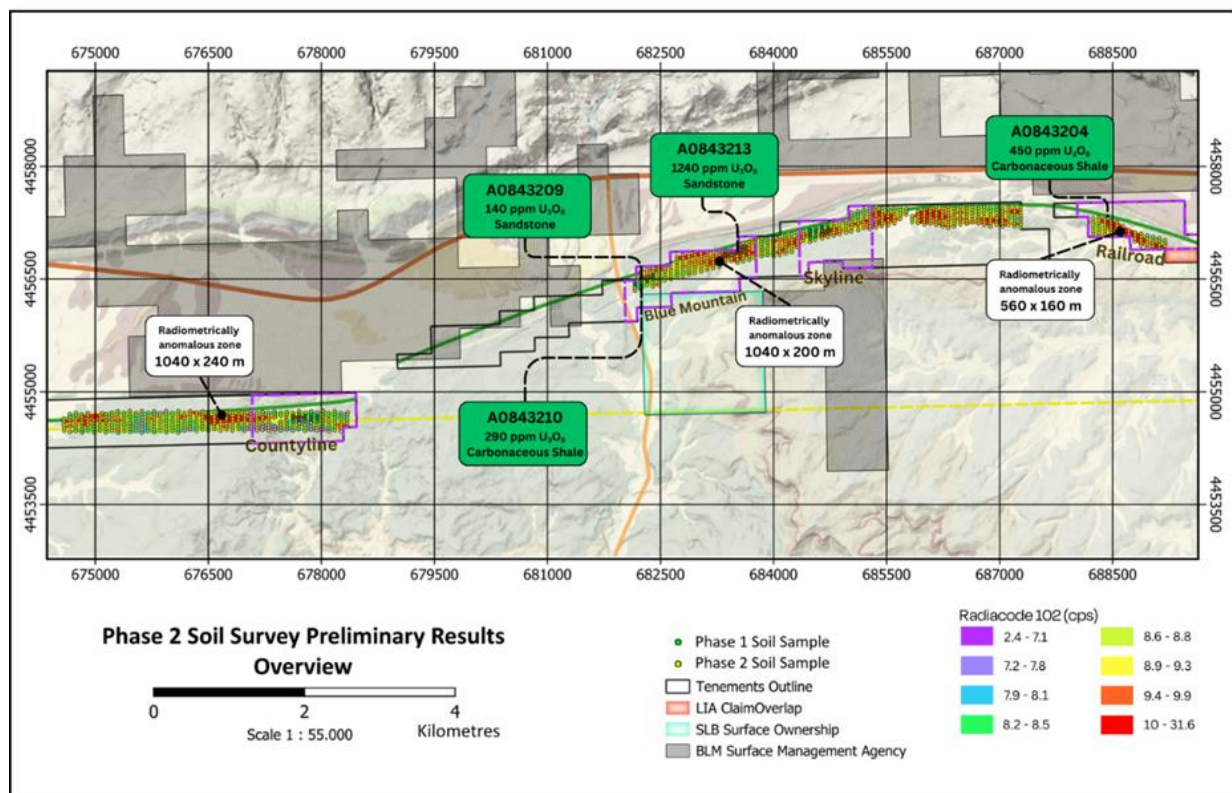


Figure 1: Location map of Skull Creek Uranium Project showing 17km strike of radiometrically anomalous basement lithology, location of 843 sample locations (total) and significant uranium mineralisation found in rock chips at surface.

¹ Pioneer Lithium ASX: 20 Aug 2025

Warmbad Uranium Project – Namibia

Warmbad is an alaskite hosted uranium system in southern Namibia supported by extensive historical drilling (>30,000 m RC) completed by Xemplar Energy between 2007 and 2009.

After acquisition of the project, Pioneer acquired, consolidated and interpreted all historic drill results available from the Namibian Ministry of Mines and Energy. Wireframing and geological interpretation of the known mineralisation resulted in the release of a JORC Compliant Exploration Target at Warmbad of 22.2 to 32.1 Mt at an average grade of 100 – 120 ppm U_3O_8 ²

Cautionary Statement: *The potential quantity and grade of the Exploration Target is conceptual in nature. There has been insufficient exploration to estimate a Mineral Resource, and it is uncertain whether further exploration will result in the estimation of a Mineral Resource. The Exploration Target has been prepared and reported in accordance with Clause 17 of the JORC Code, 2012 Edition.*

The Exploration Target and footprint of known mineralisation provide significant room for expansion as the known existing pods of uranium mineralisation remain open in multiple directions. Additionally, many known occurrences of granitic and alaskite intrusive's remain untested and may contain new zones of mineralisation.

Pioneer completed a ground reconnaissance trip to engage with landowners and local authorities to gain access for further exploration. The local Warmbad and Karasburg authorities were strongly supportive of continued development of the project.

Regulatory approvals to conduct exploration have been submitted to the Namibian Ministry of Mines and a meeting between the Namibian MME, the resettlement committee, landowners and Pioneer occurred on the 30th of Sep 2025. Access approvals are expected to be forthcoming.

The mineralisation style at Warmbad is alaskite hosted uranium with bulk tonnage potential analogous to other known Namibian alaskite systems such as the Rossing Mine. The quantifiable known amounts of Uranium mineralisation at Warmbad adds significant value to Pioneer and intends to commence further work on progressing the project in the first half of 2026.

Proposed future work includes.

- Completion of Radiometric and Magnetic drone-based survey to identify discrete radiometric anomalies associated with untested granitic and alaskite intrusive's.
- Geophysical interpretation to identify and better understand geological structures controlling mineralisation. To date these controlling structures have not been targeted by historic exploration.
- Expansion of Exploration target by completing step out drilling at all mineralised pods where mineralisation is known to be open.

Warmbad Uranium Project Exploration Target	Lower Estimate	Upper Estimate	Lower Estimate	Upper Estimate
	Tonnes (Million)	Tonnes (Million)	Grade U_3O_8 (ppm)	Grade U_3O_8 (ppm)
Area 1	4.51	6.52	100	120
Area 3 Extension	1.7	2.46	100	120
Area 3	7.89	11.4	100	120
Area 5	8.12	11.73	100	120
Totals	22.22	32.11	100	120

Table 1: showing break down of Exploration target tonnage and grade at each mineralised pod of alaskite hosted uranium mineralisation.

² Refer to Pioneer Lithium ASX Announcement 24 July 2025

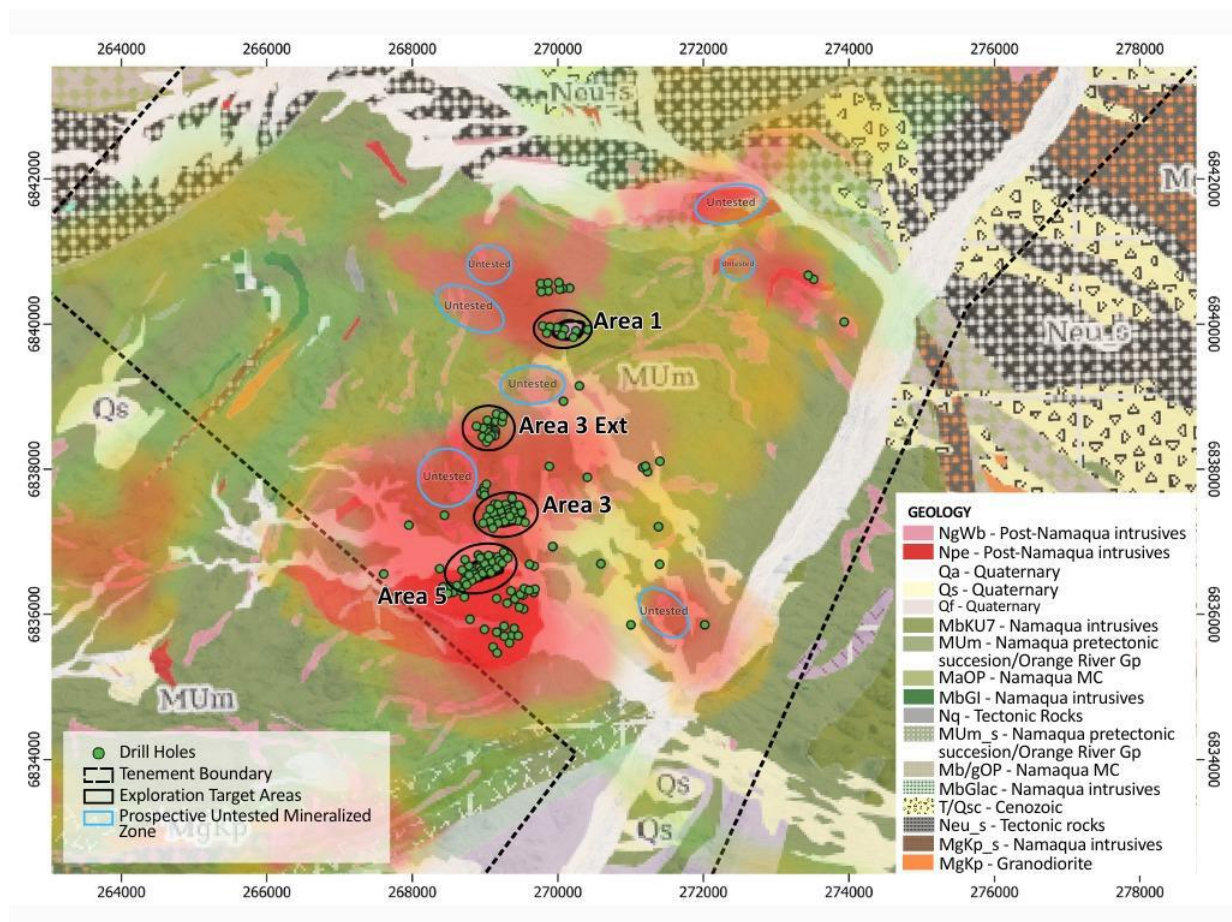


Figure 2: Warmbad primary target area showing zones of mineralisation used in the calculation of the Exploration Target, historic drill hole locations and untested areas of alaskite intrusive's.

Benham Lithium Project – Ontario, Canada

The Benham Project (30 claims; ~1,245 ha) lies proximal to the Ghost Lake Batholith along the Winnipeg River near the Western Wabigoon sub-province boundary, a fertile corridor for LCT pegmatites. Historical mapping and sampling confirm the presence of lithium-bearing pegmatites with assays returning grades of up to 4.61% Li_2O from spodumene-rich pegmatites.³

The presence of confirmed high grade lithium bearing pegmatites at Benham positions Pioneer to quickly capitalise on the asset when the lithium spot price makes a recovery. At Benham, Pegmatitic dykes intrude metasedimentary and metavolcanic packages adjacent to evolved, S-type granites of the Ghost Lake Batholith, an archetypal setting for LCT pegmatite development.

The potential for extension of the mineralised pegmatite beneath cover and/or occurrence of multiple stacked mineralised pegmatites is high. Additionally, as the demand for Rubidium increases highly fractionated LCT pegmatites provide additional value beyond their Li_2O content with Rb grades discovered at Benham reaching as high as 0.6% above the grades considered recoverable.

Pioneer has renegotiated the Benham Option Agreement Milestone Payments which are now adjusted to reflect the following.

- Scheduled 12 monthly retention payment of \$100,000 CAD due on 4th November 2025 and \$100,000 CAD retention payment due on the 4th November 2026 now \$10,000 CAD due on 4th November 2025 and \$190,000 CAD due on 4th November 2026.

³ Pioneer Lithium ASX:18 Jan 2024

All other aspects of the Option Agreement remain the same.

It remains highly perspective for the discovery of Lithium bearing pegmatites with further future exploration. Pioneer has met its expenditure requirements to keep the project in good standing while we await the recovery of the lithium spot price.

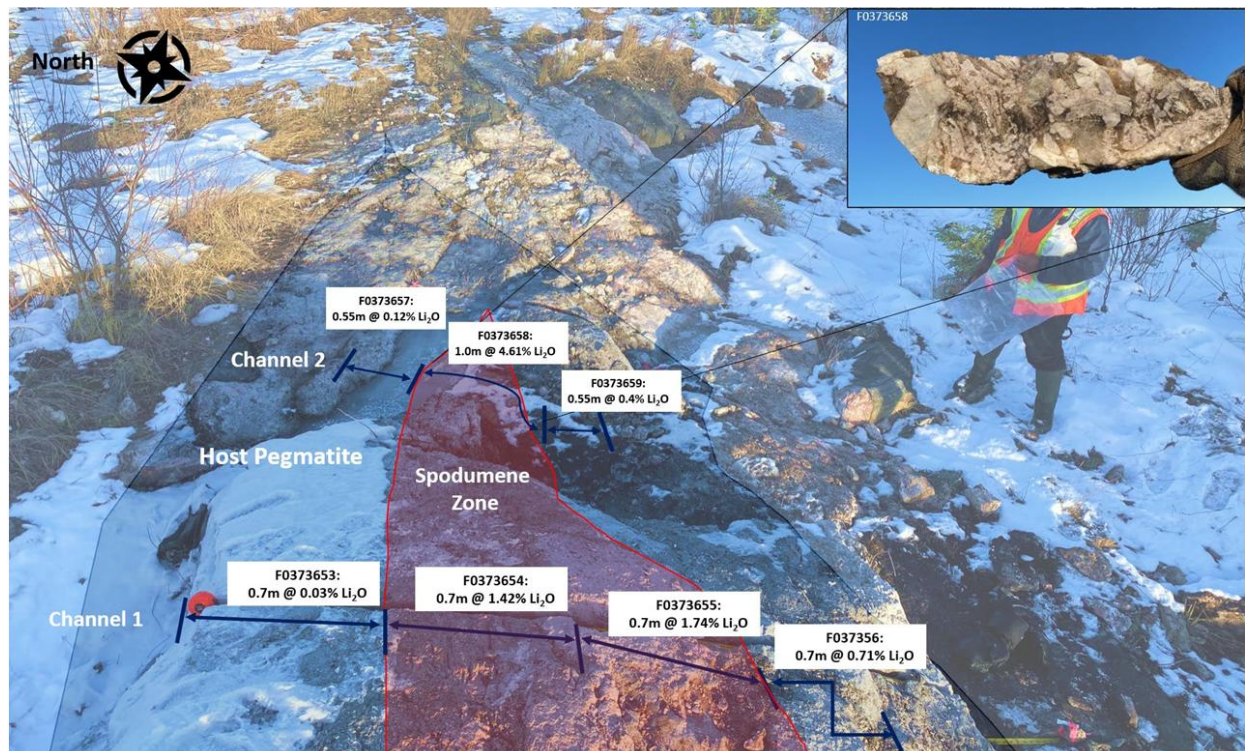


Figure 3: Benham spodumene pegmatite discovery and channel samples showing peak grade of 1m at 4.61% Li_2O and averaging 2.1m at 2.33% Li_2O and 2.1m at 1.29% Li_2O in channel samples (ASX:19 Jan 2024).

Root Lake Lithium Project – Ontario, Canada

The Root Lake Project holds promising opportunities for expansion into Green Technology Metals' (ASX: GT1) Consolidated McCombe pegmatite field, as well as the Root Bay pegmatite fields. These adjacent areas are significant due to their established resources, with the McCombe field containing 4.5 million tonnes at 1.01% Li_2O , and the Root Bay field holding 10.1 million tonnes at 1.29% Li_2O ⁴.

Root Lake provides lithium optionality within a proven spodumene district of north-western Ontario. The project is within the Root Bay greenstone belt where multiple spodumene pegmatites have been mapped; fertile granites and structural corridors provide favourable emplacement controls.

Alongside Benham, Root Lake is Pioneer's primary listing asset and is of significant value to the company. It remains highly perspective for the discovery of Lithium bearing pegmatites with further future exploration. Pioneer has met its expenditure requirements to keep the project in good standing while we await the recovery of the lithium spot price.

⁴ Refer to GT1 ASX announcement dated 18 October 2023.

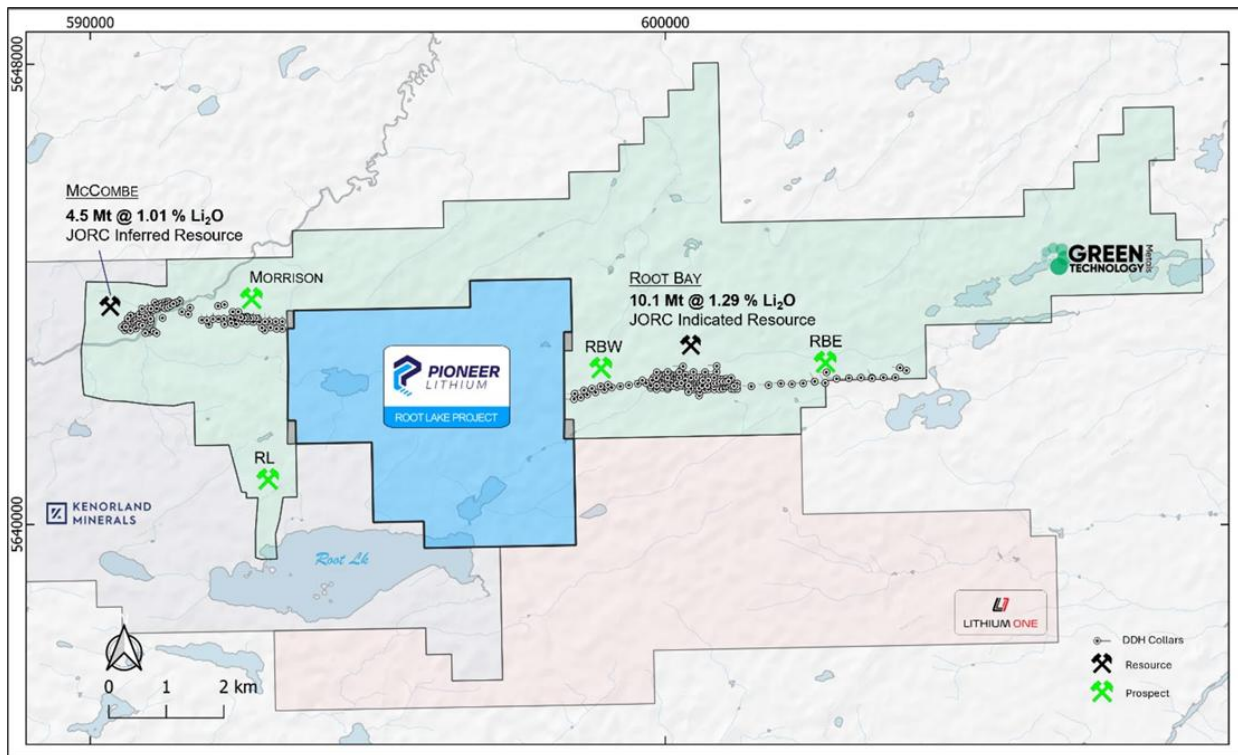


Figure 4: Root Lake regional map showing known spodumene occurrences and target trends.

Gaobis Uranium Project – Namibia

Following a strategic review of its portfolio, Pioneer has elected to withdraw from the acquisition of Gaobis Uranium Project in Namibia (See ASX announcement 9 July 2025) and, as such, no longer holds interest in the project. This decision reflects with the Company's commitment to prioritising projects that with potential stronger returns for shareholders. With a renewed focus on advancing its US project and evaluating new staking opportunities aligned with long term value creation.

Botsalano Ring Complex - Botswana

Botsalano project located in Botswana was granted in July⁵ and features an interpreted Proterozoic intrusive ring complex in the Gaborone–Kanye terrane. The granites here have recorded alteration and brecciation consistent with an IOCG style system with significant iron alteration occurring in areas.

Pioneer completed an initial round of landowner engagement in august to negotiate land access agreements. A first pass exploration program on the project will be completed in the first half of 2026 and will involve field mapping, rock chip sampling and interpretation and remodelling of available state geophysical data.

⁵ See Pioneer Lithium ASX 15 July 2025

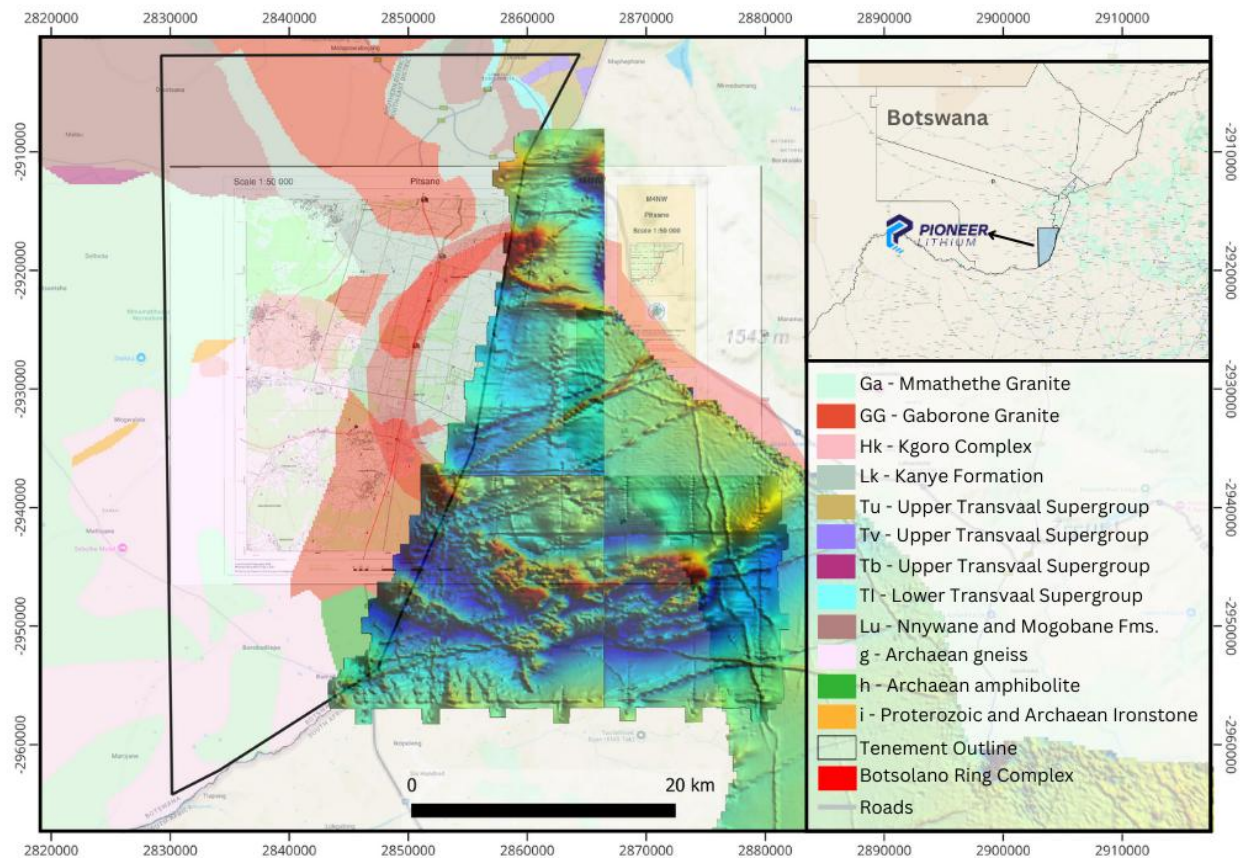


Figure 5: Map of the Botsalano Project along the southeastern border between Botswana and South Africa. The inferred extension of the Botsalano Ring Complex is shown over laying basement geology.

For further information on Pioneer: www.pioneerlithium.com.au.

Investors:

Michael Beven
 Chief Executive Officer
 Pioneer Lithium Ltd
 Phone: 0452 177 769
 E: michael.beven@pioneerlithium.com.au

Media:

Kelly-Jo Fry
 Pioneer Lithium Ltd
 Phone: (08) 9465 1044
 E: kjfry@pioneerlithium.com.au

Compliance Statement

This report contains information on the Skull Creek, Benham, Root Lake, Gaobis and Botswana projects extracted from ASX market announcements dated 05 May 2025, 20 Aug 2025, 18 Jan 2024, 24 July 2025 and 15 July 2025 released by the Company and reporting in accordance with the 2012 edition of the "Australian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves" (JORC Code). The original market announcements are available to view on www.pioneerlithium.com.au and www.asx.com.au. Pioneer Lithium is not aware of any new information or data that materially affects the information included in the original market announcement which continue to apply.

Forward-looking statements

This announcement may contain certain forward-looking statements and projections. Such forward looking statements/projections are estimates for discussion purposes only and should not be relied upon. Forward-looking statements/projections are inherently uncertain and may differ materially from results ultimately achieved. Pioneer Lithium Limited does not make any representations and provides no warranties concerning the accuracy of the projections and disclaims any obligation to update or revise any forward-looking statements/projects based on new information, future events or otherwise except to the extent required by applicable laws. While the information contained in this report has been prepared in good faith, neither Pioneer Lithium Limited nor any of its directors, officers, agents, employees or advisors give any representation or warranty, express or implied, as to the fairness, accuracy, completeness or correctness of the information, opinions and conclusions contained in this announcement.