ASX Announcement

20 Aug 2025

District Scale Radiometric Anomalies Detected in Project Scale Soil Sampling, Sampling Now Completed at Skull Creek Uranium Project, Colorado USA

Highlights

- **Phase 2 sampling completed** at the Skull Creek Uranium Project in Colorado with **748 new samples** dispatched to **ALS** for multi element analysis. The full program now totals **848 samples** collected on nominal **80 × 40 metre** spacing across three blocks.
- Broad Zones of new undiscovered and untested **radiometrically anomalous basement** have been detected across the length of the 17km long strike of the project. Indicating the potential for large scale uranium mineralisation.
- **Geochemical pathfinders** for differentiating between primary mineralisation and broader widespread low level uranium mineralisation identified. Footprints include **Countyline ~1,040 × 240 metres** plus a separate zone about **500 metres** wide, **Blue Mountain ~1,040 × 200 metres**, and **Railroad ~640 × 160 metres**.
- **Skull Creek sits within the Colorado Plateau uranium province including the historic Uravan Belt. The footprint scale and host stratigraphy are consistent with deposits mined across that district. Targets align with the Sego Sandstone host horizon** and adjacent **carbonaceous shales** that provide the **redox trap** typical of **Colorado Plateau** uranium systems.
- Target area Blue Mountain which previously reported **high-grade uranium rock chip results up to 1,240 ppm U_3O_8** (ASX: 5 May 2025) from Sego Sandstone now under pinned by new 1km long zone of anomalous radiometric readings.
- Geological team from Bigrock Exploration remobilising back to site for more geological mapping in preparation for drilling planning.
- **Program timing aligns with renewed US policy support for domestic uranium production, including** executive orders prioritising energy security and reducing import reliance.
- **Pioneer is strategically positioned to benefit from geopolitical and market tailwinds**, with Skull Creek emerging as a potential compelling uranium asset in a Tier-1 jurisdiction.

Pioneer Lithium Limited (ASX Code: **PLN**) ('**Pioneer**' or '**the Company**') announces the completion of all phases of soil and regolith sampling at the 100% owned Skull Creek Uranium Project located in Colorado USA. The two phases of sampling cumulatively resulted in the collection of 848 samples from across the prospective strike of the project. Radiometric readings recorded from the bottom of each sample collection site have identified multiple broad zones of coherent radiometric anomalism which highlight the potential for the project to host significant uranium mineralisation (see Figure 2).

Radiometric readings indicate relative radioactivity and are not a proxy for uranium grade. Chemical assays are required to confirm uranium content. Equivalent uranium (eU) will only be reported where appropriate calibration procedures are completed and disclosed.

The cumulative program consisted of two phases of sampling. An initial orientation phase of approximately 100 samples was collected over four sites previously identified by radiometric anomalies and where uranium bearing rock chip samples returned U_3O_8 values of up to 1240 ppm (*see ASX 5 May 2025 Rock Chip Grades of up to 1,240 ppm U3O8 in Sego Sandstone at the Skull Creek Project, Colorado*). This initial phase was completed to determine the effectiveness of soil sampling at the project and to determine if the soil profile was developed enough to ensure the technique would be suitable for implementation across the wider extent of the project. The details of the phase 1 outcomes are detailed in this document on page 7.

Figure 1: Field Sampling Team from Bigrock Exploration Program looking back at the Skull Creek Uranium Project after the completion of Sampling.

Pioneer's Chief Executive Officer, Michael Beven commented:

"The preliminary results interpreted from the radiometric recordings taken from the bottom of each sample location are exciting. They demonstrate large areas of elevated radioactivity across the full length of the prospect which were previously undetectable due to the presence of the soil cover.

The low-cost initial phase 1 orientation survey was successful in determining that the soil development at Skull Creek is poor and does not feature reliable substrate for consistent sampling across the greater extent of the project. With this determined Pioneer completed phase 2 of sampling by taking samples by digging through the soils and sampling from the very top of the weathered bedrock.

What we have identified now are broad coherent areas of radiometric anomalism never discovered or tested of a scale suitable to potentially host economic zones or uranium mineralisation. These anomalous zones match the strike orientation of the target lithologies and extend for up to a kilometre in some instances"

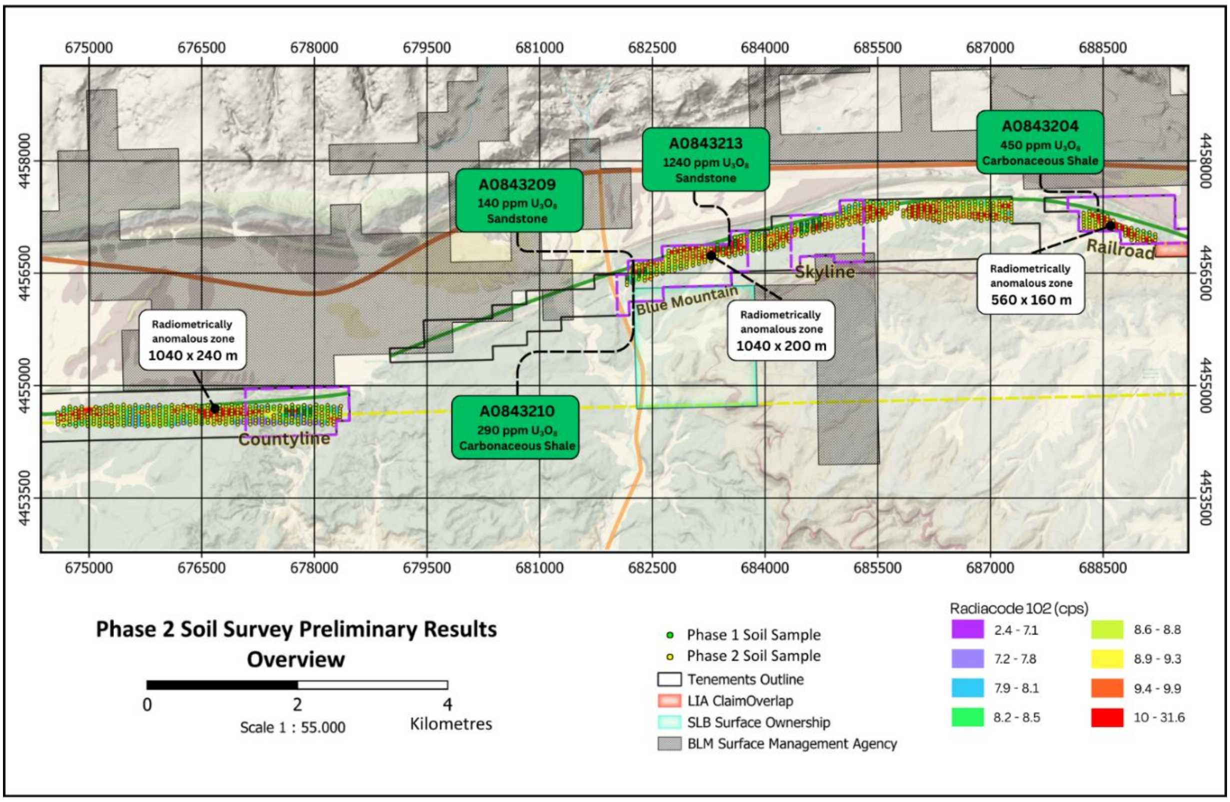

Figure 2: Prospect location map highlighting the location of all soil and regolith samples along with previously reported rock chip assay results. Radiometric readings taken via Radiacode 102 from the bottom of each sample site are also contoured and displayed. Radiometric anomalism of significant scale has been detected beneath the cover across all areas at the Skull Creek Project, Colorado.

Sampling Project Overview

748 samples of weathered regolith were taken from across the identified most prospective areas thought to correspond with the interpreted strike of the Sego Sandstone. The samples were collected on an 80 x 40 metre grid where possible to enable suitable sample density to determine drill targets once geochemical results become available.

This program sampled only the weathered regolith taken from the bottom of each hand dug hole beneath the soils as it was determined by the phase 1 orientation program that consistent soil samples would not be able to be taken from across the project and that the soil itself is immature and heavily transported making it an unsuitable medium to retain or reflect the presence of hidden uranium mineralisation.

At each sample location, a RadiaCode 102 was placed on the ground and the value recorded. When plotted, these data reveal broad areas of radiometric anomalism across the prospect that are undetectable at surface due to soil cover. These newly discovered anomalies occur in previously untested areas and significantly broaden the project's prospectivity.

Western Block – Countyline

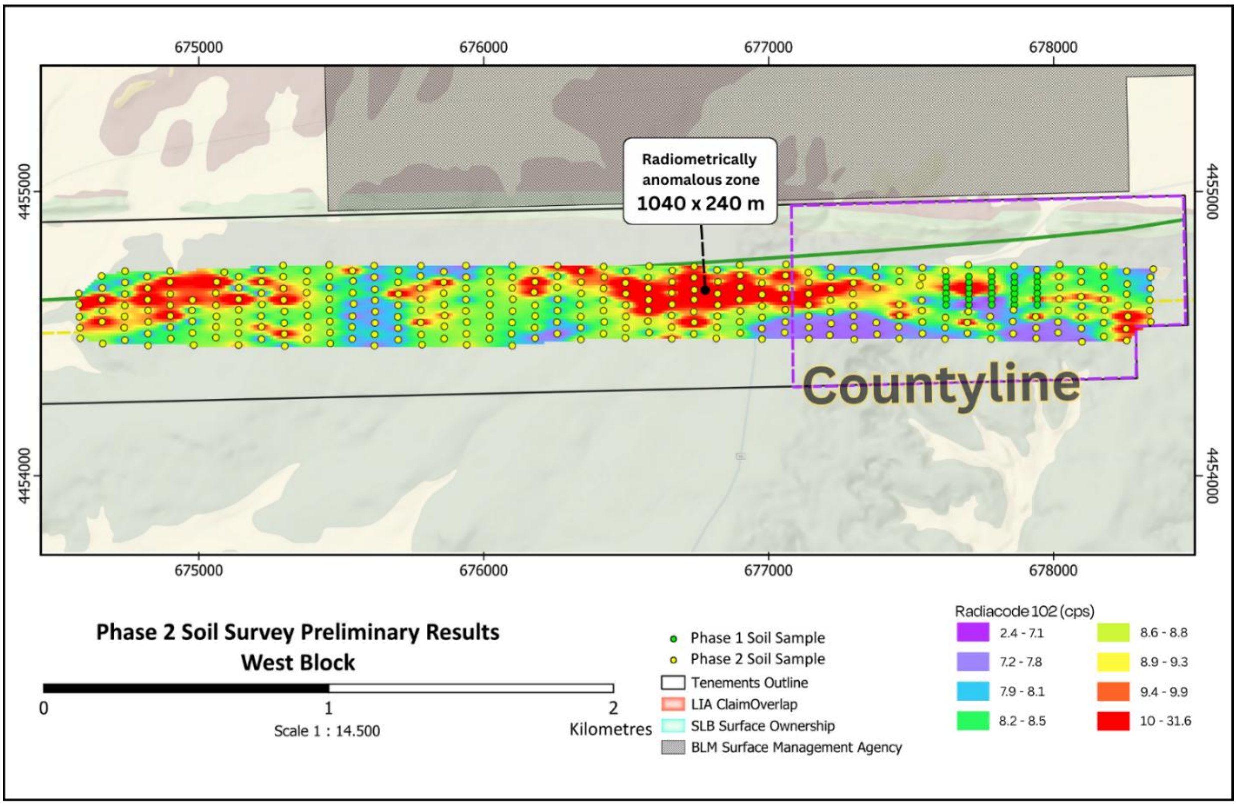

Figure 3: Showing the location of regolith samples taken from the western block near the Countyline prospect with relative anomalous radiometric readings taken from the bottom of each sample site. Two large scale broad zones of anomalous radioactivity are present here located beneath and obscured by soils.

Figure 3 shows the western most portion of the project area where two significant radiometric anomalous areas previously undetected have now been discovered. To the west of the Countyline prospect where no outcrop exists, 2 distinct zones of radiometric anomalism occur. The western most anomaly is approx 500 metres wide while the largest and most coherent radiometric anomaly sits just to the west of Countyline and is approximately 1040 metres x 240 metres in size with an east west orientation matching the strike of the target lithologies. This sizable anomaly has never been discovered or tested by any previous exploration and presents an exciting zone of anomalism of significant scale.

Both areas of anomalism feature no outcrop and pending geochemical results, look to be large scale zones where mobilised uranium has been able to aggregate and be retained in both Sego Sandstone and the carbonaceous shales that surround it.

Central Block – Blue Mountain and Skyline

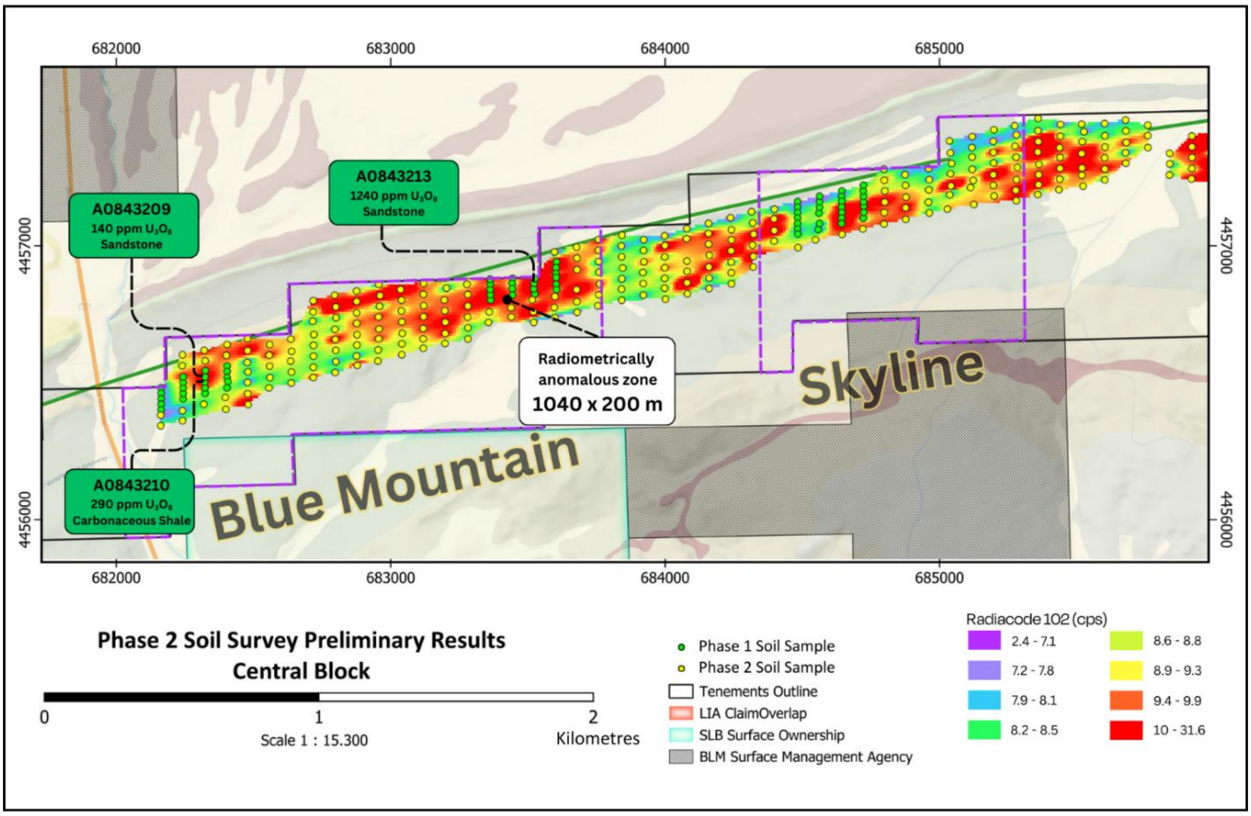

Figure 4: Showing the locations of regolith samples taken from the central block in the proximity of the Blue Mountain and Skyline prospect with anomalous radiometric readings taken from the bottom of each sample site.

The central block contains two prospects referred to as the Blue Mountain and Skyline prospects where we see wide broad zones of anomalous background radiometric anomalism that extend under cover far from the outcropping areas previously identified. The largest zone of anomalism is associated with the Sego prospect at Blue Mountain where a rock chip sample previously returned 1240 ppm U_3O_8 in outcropping Sego Sandstone.

This area is approx 1040 x 200 metres and extends to the west of the outcropping area previously investigated by surface exploration. The presence of previously sampled discrete high-grade mineralisation in rock chips combined with indications of widespread basement anomalism are encouraging for future results.

Eastern Block – Railroad

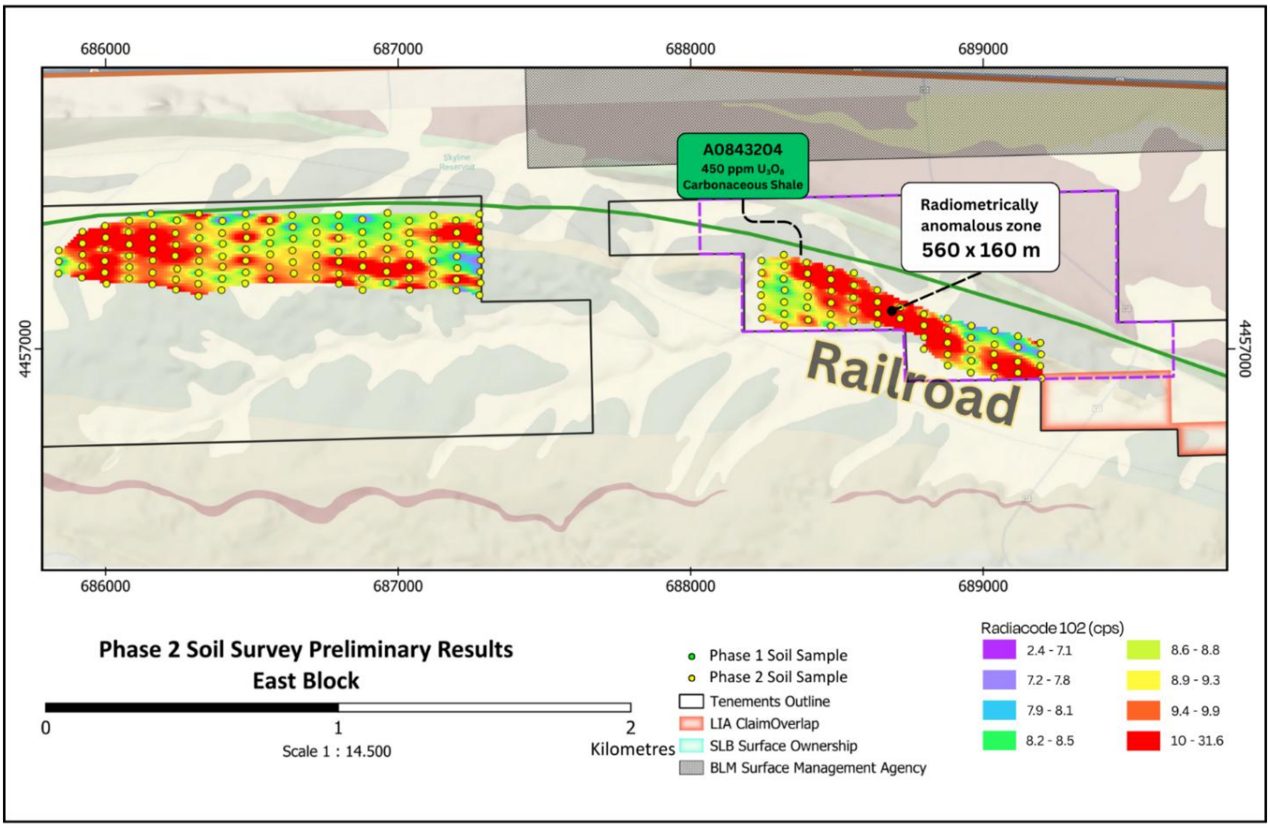

Figure 5: Showing the location of regolith samples taken from the western block near the Countyline prospect with relative anomalous radiometric readings taken from the bottom of each sample site. Two large scale broad zones of anomalous radioactivity are present here located beneath and obscured by soils

The eastern block in the vicinity of the Railroad prospect shows a coherent radiometrically elevated background of approx 640 x 160 metres The area is located to the south of the eastern tenement block and proximal to a carbonaceous shale sample that returned 450 ppm U3O8 (ASX: 5 May 2025).

Geology and Radiometrics at Skull Creek Uranium Project.

Over the multiple phases of exploration at the Skull Creek Uranium project, two instruments have been used to collect radiometric data. These instruments are the RC102, a simple device that measures relative changes in background radiation and the RS-125 Spectrometer which provides more accurate measurements of radiation in counts per second. Measurement from the same sample sites were taken with both instruments during the initial phases of exploration and there is a proven direct correlation (see figure 6) between the relative readings returned on the RC102 and the more exact CPS returned by the RS-125 Spectrometer. Due to this correlation and confidence in the RC-102. Pioneer utilised the RC-102 for the recording of radiometric anomalies during phase 2 sampling. Not only is the RC-102 accurate but is also significantly cheaper and easier to use in the field.

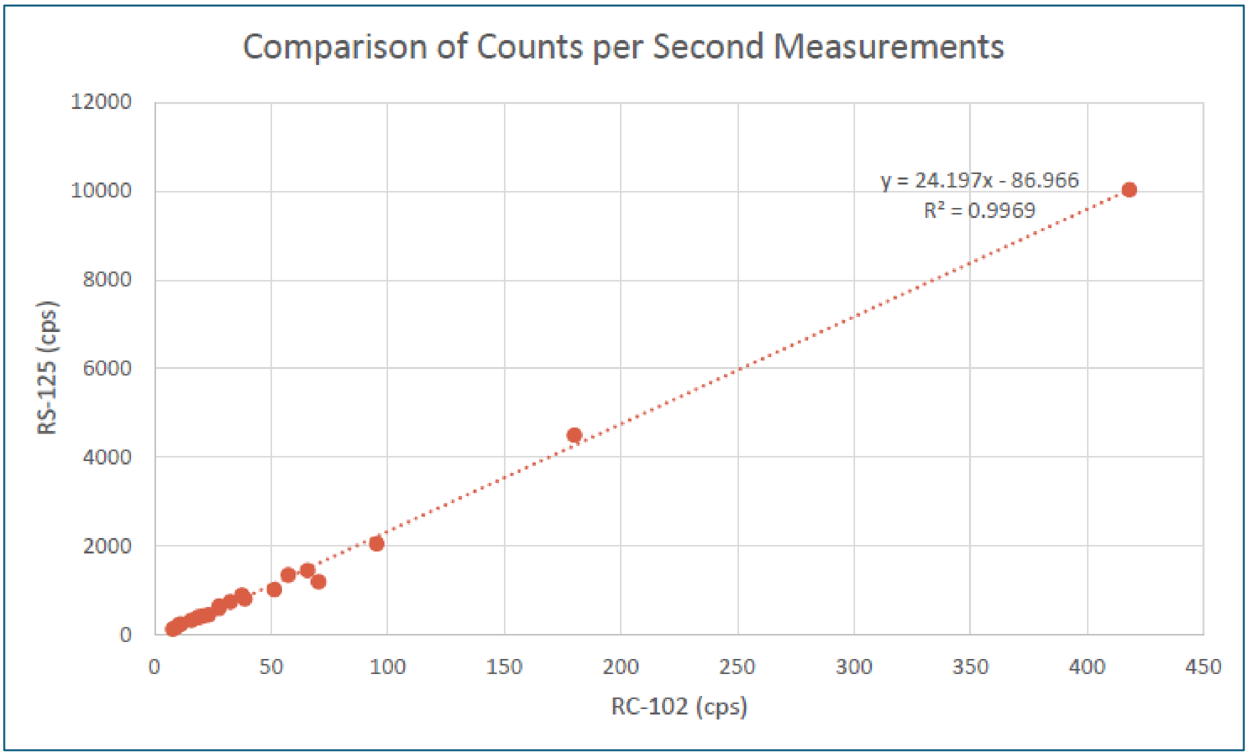

Figure 6: A scatterplot showing the linear relationship between results recorded on both the RC-102 and RS-125 Spectrometer showing an almost direct correlation between the relative RC-102 reading and the RS-125 CPS

The broad areas of radiometric anomalism identified at Skull Creek utilising the RC-102 correlate with low levels of anomalism and represent broad areas of the basement geology including both Sego Sandstone and carbonaceous shales where mobilised uranium mineralisation has been able to be captured. The width of the mapped Sego horizons previously identified and mapped ranged from 10m to 50m thickness and run east west through these broader areas of elevated background radiation. It is the Sego Sandstone horizons within these larger anomalous footprints that are most prospective to host uranium mineralisation of economic grade down dip at depth.

Critical path finder elements in the geochemistry are critical to identifying areas within the broader anomalous background that may indicate suitable drill targets. The critical pathfinder elements are V, Ag, Cu, and Mo for primary mineralisation which is diagnostic of a Colorado Plateau style of uranium mineralisation along with As, Fe and Se which often define dispersion halos around uranium deposits and help to identify reduced or oxidised zones. Areas within the broader identified radiometric anomalies mentioned above that return coherent anomalism for these pathfinders will make for ideal drill targets.

Phase 1 Soil Sample Results

The phase 1 soil orientation program was designed to determine the effectiveness of soil sampling as a suitable technique for identifying anomalous zones of uranium beneath the soil cover at Skull Creek prior to rolling out the larger and more expensive phase 2 sampling program.

Approx 100 samples were collected and during this program it was found that the development of an in-situ soil profile was inconsistent and largely absent from the prospects making the sampling method unsuitable. Samples were thus collected from which ever medium was available and ranged from outcrops to weathered regolith to poorly developed soils. As a result of this it was determined that the only effective uniform sample medium that could be used consistently across the prospect was the weathered regolith taken from the very bottom of a hand dug hole beneath any soil or cover profile.

Of the samples taken during phase 1 only the weathered regolith or outcrops sampled returned anomalous uranium values, in this selected subset of samples a direct correlation between low level U, As and Se was detected which may indicate the presence of strong reducing zones.

In rock chips samples which returned significant U_3O_8 values the strongest correlation is with V, Ag, Cu and Mo indicating that this mineralisation is primary. The combination of these correlations will allow us to potentially identify broader zones of As and Se anomalism in the phase 2 results indicating strongly reduced zones and where V, Ag, Cu and Mo occur within these broader zones indicating primary mineralisation and potential drill targets.

While the program cannot conclusively confirm uranium mineralisation due to variable media and weak soil development, it does highlight pathfinder associations. Figure 7 shows a strong U,As and Se correlation, pointing to strongly reduced zones. Figure 8 illustrates U with Ag, Mo and Cu in high-grade rock chips, consistent with Colorado Plateau mineralisation.

These identified associations will now allow us to identify the broad halos of anomalous As and Se in the phase 2 results that indicate the most reduced areas while samples that form coherent zones of mineralisation with associated V, Ag, Mo and Cu pathfinder elements indicate the presence of primary mineralisation within the broader anomalous zone.

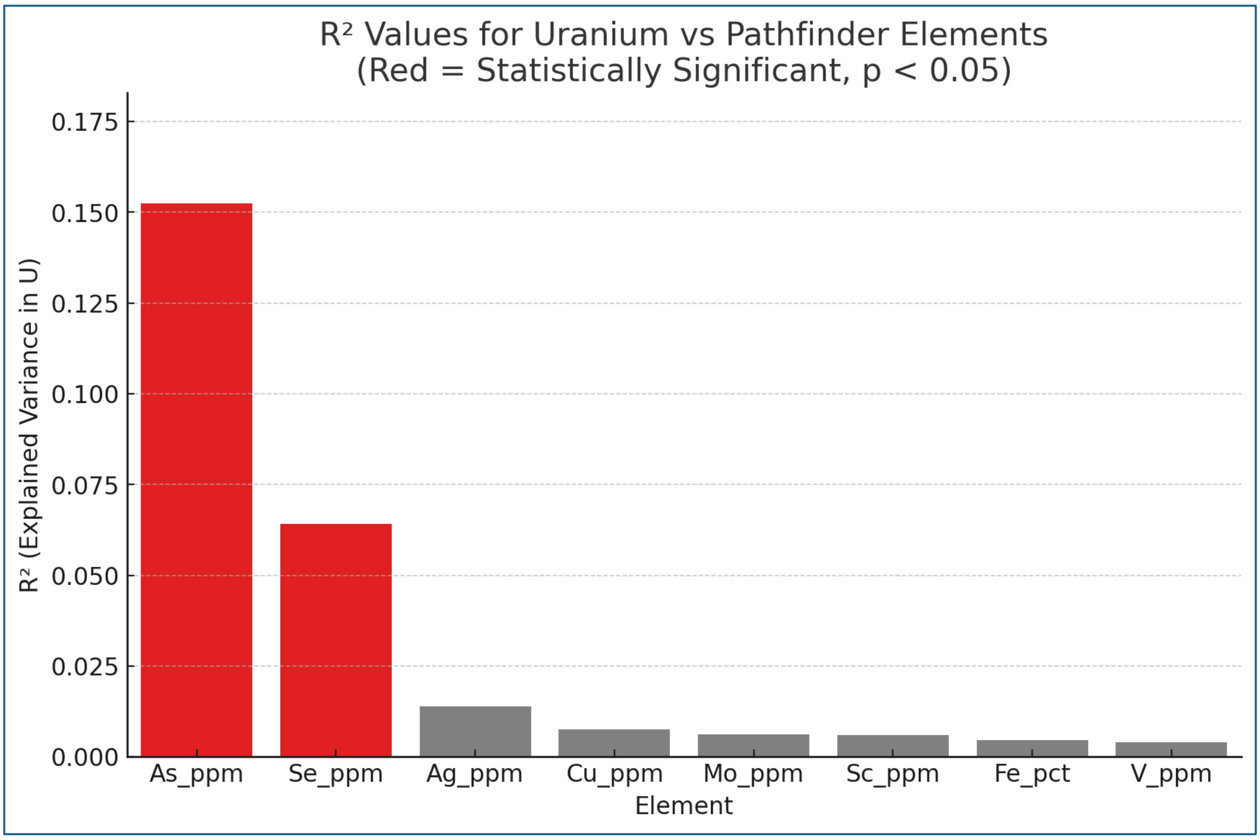

Figure 7: R^2 ranking/ variance plot showing the correlation of pathfinder elements in the phase 1 sampling results indicating uranium is mostly associated with reduced zones. Red indicated a strong correlation while grey indicated little or no correlation.

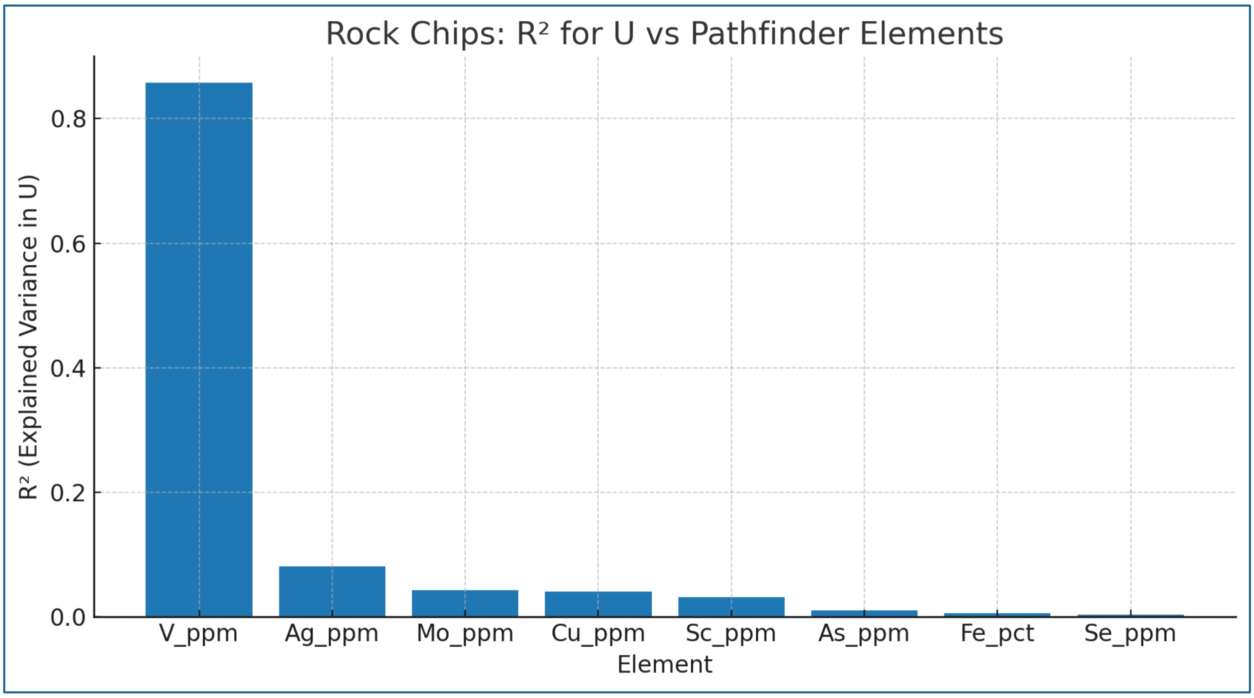

Figure 8: R^2 ranking/ variance plot showing the correlation of pathfinder elements from rock chip sampling results indicating uranium found outcropping at surface mostly associated with primary Colorado Plateau style mineralisation's. Blue indicates a strong correlation while grey indicated little or no correlation.

An overview of absolute of all samples taken during phase one categorised by uranium values is shown below in figure 8 and shown in table 1. Due to the nature of the orientation program these results are considered inconclusive and will be re-evaluated when able to be incorporated into the broader sample results from phase 2.

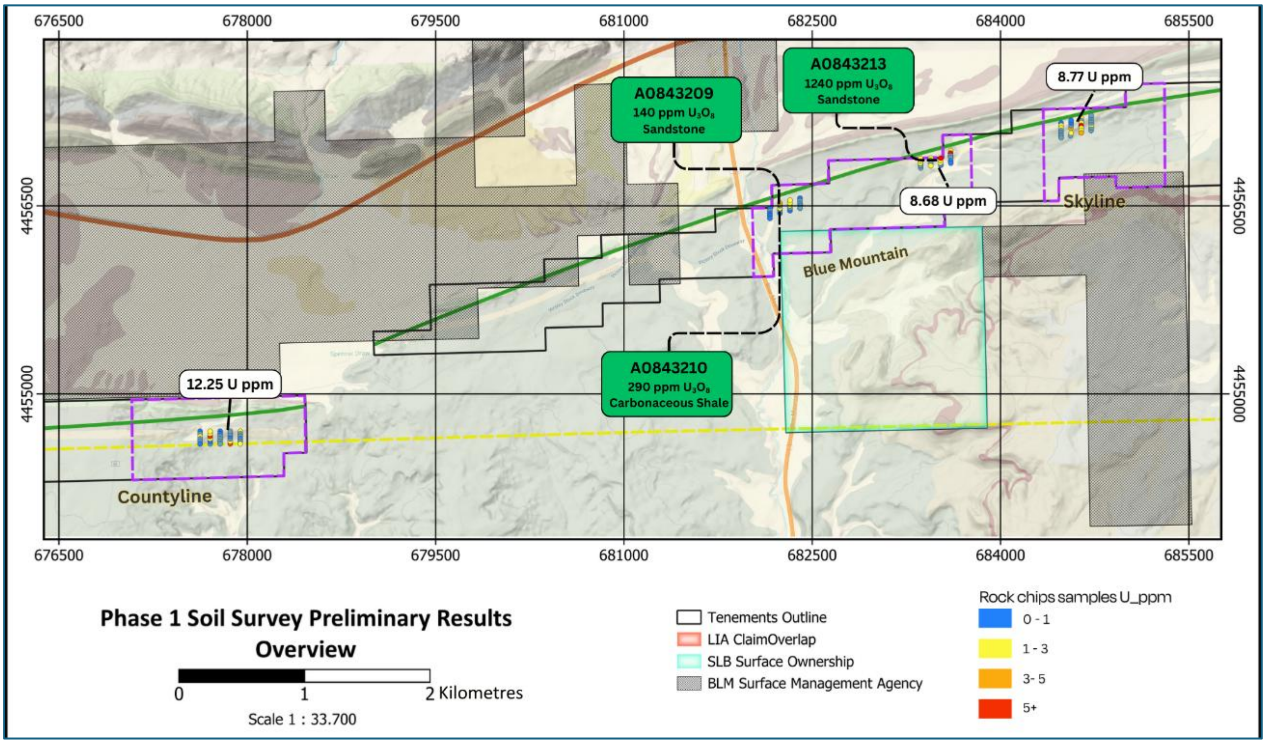

Figure 9: An overview map showing the location of phase 1 samples results taken from various sample medium across the Skull Creek Uranium Project.

Sample	NAD83_E	NAD83_N	Sample medium	U ppm	As ppm	Se ppm	Ag ppm	Cu ppm	Mo ppm	V ppm	Fe %
J413001	677623	4454701	soil	0.57	2.4	-0.2	0	6	0.86	9	0.63
J413002	677623	4454681	soil	0.7	3.3	-0.2	0.1	11.3	0.8	14	0.91
J413003	677623	4454661	soil	1.78	2.7	0.2	0.1	6.7	1.74	9	0.43
J413004	677623	4454641	soil	0.66	2.3	-0.2	0	6.4	0.71	11	0.74
J413005	677623	4454622	soil	0.78	6.4	-0.2	0.1	15.9	0.35	22	0.7
J413006	677623	4454601	regolith	0.57	2.1	-0.2	0.1	6.8	0.4	11	0.81
J413007	677703	4454601	soil	0.64	1.1	-0.2	0	2.4	0.18	3	0.24
J413008	677703	4454621	soil	0.45	1	-0.2	0	1.1	0.11	2	0.12
J413009	677703	4454641	soil	1.86	2	0.2	0.1	9.9	0.76	15	0.64
J413011	677703	4454661	outcrop	12.3	3.1	0.3	0	3	0.94	4	0.22
J413012	677703	4454681	soil	1.43	2.7	-0.2	0.1	13.2	0.99	16	0.54
J413013	677703	4454701	soil	1.09	4.8	-0.2	0.1	7.9	1.61	17	1.04
J413014	677783	4454701	soil	0.59	2.5	-0.2	0.1	4.8	2.16	8	0.57
J413015	677783	4454681	soil	0.49	1.8	-0.2	0.1	6.4	1.06	9	0.44
J413016	677783	4454661	soil	0.74	2.2	-0.2	0.1	8	1.48	11	0.41
J413017	677783	4454641	soil	0.89	2.8	-0.2	0.1	6.7	1.67	12	0.76
J413018	677783	4454621	soil	0.91	4.6	0.3	0.1	10.6	0.42	13	0.83
J413019	677783	4454601	soil	0.73	3.8	0.3	0.1	10.2	0.46	14	1.06
J413020			Duplicate	0.69	3.7	0.2	0.1	9.2	0.43	14	1.02
J413021	677863	4454601	regolith	7.4	4.5	1.1	0.2	19	0.37	22	0.53
J413022	677863	4454621	soil	1.07	4.4	0.6	0.1	9.2	0.81	23	2.2
J413023	677863	4454641	soil	0.68	2.2	0.4	0.1	7.8	0.67	11	0.62
J413024	677863	4454661	soil	0.62	2.4	-0.2	0.1	10.5	0.6	9	0.46
J413025	677863	4454681	soil	0.72	1.6	0.2	0.1	6.2	9.85	7	0.43
J413026	677863	4454701	soil	0.69	1.6	-0.2	0.1	4.5	1.07	6	0.35
J413027	677943	4454701	regolith	1.31	4.8	0.3	0.3	14.2	2.43	15	1.09
J413028	677943	4454681	soil	0.97	4.5	0.5	0.1	10.2	2.28	16	1.76
J413029	677943	4454661	soil	0.94	3.3	0.4	0.2	19.2	0.59	16	0.44
J413031	677943	4454641	soil	0.63	2.7	0.2	0.1	7.9	0.76	12	0.82
J413032	677943	4454621	soil	0.82	3.5	0.3	0.1	4.8	0.78	10	0.51
J413033	677943	4454601	soil	1.14	3.1	0.8	0.2	19.9	0.96	20	1.7
J413034	682163	4456481	soil	0.45	4.6	0.3	0.1	10.2	0.87	23	1.25
J413035	682163	4456461	soil	0.67	4.7	0.5	0.1	9	0.87	21	1.15
J413036	682163	4456441	soil	0.54	4.9	0.2	0.1	7.9	0.8	22	1.12
J413037	682163	4456421	soil	0.53	4.9	0.4	0.1	9.7	0.82	23	1.1
J413038	682163	4456401	soil	0.46	3	0.2	0	6.9	0.58	14	0.89
J413039	682243	4456441	soil	0.54	3.1	-0.2	0.1	9	0.36	14	0.87
J413041	682243	4456461	soil	0.84	4.2	0.2	0.1	13.4	0.47	17	1.23
J413042	682243	4456481	soil	1.19	4.1	0.5	0.1	8.4	0.91	16	0.94
J413043	682243	4456501	soil	0.75	3.1	0.2	0.1	8.6	0.99	15	0.97
J413044	682243	4456521	regolith	3.21	5.5	1.2	0.1	11.2	8.39	15	0.96
J413045	683604	4456941	soil	1.04	4	0.9	0.1	4.3	0.22	15	0.63
J413046	683602	4456920	regolith	8.68	29.2	0.9	0.2	13	1.14	28	1.36
J413047	683602	4456899	soil	0.68	3.2	0.2	0.1	4.5	0.34	8	0.63
J413048	683603	4456884	soil	0.91	3	0.5	0.1	7.3	0.61	13	0.75
J413049	683603	4456859	fluvial	0.62	3	0.2	0	5	0.32	11	0.76
J413050			Duplicate	0.62	3.2	0.2	0	5	0.31	10	0.75
J413051	683604	4456840	soil	0.61	3.4	0.4	0.1	7.2	0.45	13	0.87
J413052	683525	4456824	soil	0.62	3.5	0.5	0	5.9	0.48	14	0.85
J413053	683521	4456843	soil	1.64	3.4	0.6	0.1	6.7	0.7	14	0.81
J413054	683522	4456863	soil	2.58	3.1	0.3	0.1	6	0.67	10	0.59
J413055	683525	4456880	regolith	8.9	3.1	0.5	0.1	5.8	0.6	9	0.52
J413056	683444	4456881	soil	1.24	4.6	1	0.1	11.1	0.98	17	0.86
J413057	683442	4456862	soil	2.66	7.7	0.8	0.1	12.3	0.65	24	1.63
J413058	683443	4456843	soil	0.65	1.9	0.2	0.1	6.8	0.36	9	0.74
J413059	683444	4456820	soil	1.12	5.1	0.6	0.1	17.2	0.49	17	0.81
J413061	683364	4456802	soil	0.87	2.4	0.5	0.1	8.3	1.58	12	0.97
J413062	683363	4456821	soil	0.65	2	0.4	0.1	8.5	0.59	10	0.65
J413063	683362	4456841	regolith	2.87	24.7	1.6	0.5	61.5	2.74	37	1.64
J413064	683363	4456861	soil	1.06	6.1	0.7	0.1	11.2	0.92	23	1.53
J413065	683362	4456878	soil	2.4	3.5	0.8	0.4	17.4	3.79	17	1.26
J413066	682403	4456561	soil	0.52	2.7	0.2	0	5.6	0.92	13	0.84

J413067	682403	4456541	soil	0.69	3.2	0.2	0.1	8.2	0.75	16	1.09
J413068	682403	4456519	soil	0.66	3.5	0.2	0.1	6.9	0.63	13	0.77
J413069	682406	4456504	soil	0.63	2.6	0.2	0.1	8.2	0.42	13	0.75
J413071	682403	4456481	soil	0.71	3	0.2	0	6.5	0.38	16	1.01
J413072	682323	4456461	soil	0.59	3.7	0.2	0.1	10.1	0.44	18	0.92
J413073	682323	4456481	soil	0.65	3.4	0.4	0.1	12.6	0.47	15	1.11
J413074	682321	4456502	soil	1.2	6.2	0.8	0.1	6.9	0.54	31	0.91
J413075	682323	4456521	soil	1.58	3.3	1.5	0	4.8	0.49	29	0.62
J413076	682324	4456544	soil	1.36	3.3	0.8	0.1	8.3	1.1	16	0.95
J413077	684722	4457101	poor soil	0.66	3.2	0.2	0.1	4.9	0.47	10	0.8
J413078	684724	4457122	gully	0.82	3.7	0.4	0.1	5.8	0.55	11	0.74
J413079	684724	4457145	Poor soil	2.79	2.7	0.4	0	3.1	1.44	6	0.89
J413080			Duplicate	2.8	2.4	0.3	0	3.2	1.5	6	0.89
J413081	684723	4457161	soil	0.76	4	0.3	0.1	8	0.57	12	0.77
J413082	684723	4457181	poor soil	0.73	3.3	0.2	0.1	6.1	0.36	10	0.69
J413083	684722	4457201	poor soil	0.64	3.2	0.3	0.1	8.8	0.46	13	0.78
J413084	684723	4457221	poor soil	0.87	6	0.3	0.1	9.9	0.28	13	1.24
J413085	684644	4457200	regolith	1.5	3.1	0.5	0.3	19.1	0.71	16	1.35
J413086	684643	4457180	regolith	0.88	3.3	0.3	0	4.5	0.16	12	0.54
J413087	684644	4457162	regolith	1.31	3.9	0.3	0.1	7.3	0.67	8	0.69
J413088	684643	4457141	regolith	8.77	7.2	0.4	0.1	9.2	0.67	17	0.95
J413089	684644	4457121	regolith	2.42	5.4	0.6	0.1	6.4	0.71	11	0.69
J413091	684643	4457101	regolith	2.42	6.2	0.3	0.1	6.1	0.83	11	0.72
J413092	684643	4457081	alluvial	4.04	7.2	0.5	0.1	5.7	0.82	10	0.69
J413093	684558	4457059	soil	0.92	3	-0.2	0	4.5	0.27	8	0.54
J413094	684563	4457081	soil	1.29	5.6	-0.2	0	2.8	0.17	5	0.41
J413095	684561	4457120	soil	3.35	5.3	-0.2	0	3	0.25	5	0.4
J413096	684563	4457141	soil	0.68	3.7	0.3	0.1	6.9	0.37	11	0.69
J413097	684563	4457161	outcrop	0.55	6.2	0.2	0	5.9	0.22	12	0.59
J413098	684563	4457181	soil	0.36	3.7	0.2	0.1	4.7	0.5	10	0.71
J413099	684483	4457161	regolith	0.42	3	0.2	0.1	3.7	0.11	8	0.75
J413101	684483	4457141	regolith	1.38	6.5	0.2	0.3	30.8	0.55	17	1.1
J413102	684483	4457121	shale regolith	2.66	5	2.7	0.1	7.7	1.08	12	0.35
J413103	684483	4457101	regolith	0.88	5.9	0.3	0.1	9.1	0.44	19	1.26
J413104	684483	4457081	regolith	0.84	3.8	0.3	0.1	6.4	0.39	13	0.81
J413105	684483	4457061	alluvial	0.75	3.7	0.3	0.1	6.3	0.38	13	0.83
J413106	684484	4457043	alluvial	0.67	3.5	0.4	0.1	5.6	0.35	12	0.74

Table 1: showing the location co-ordinates along with sample medium, U ppm results and associated critical pathfinder elements.

Next Steps for Pioneer at Skull Creek

748 Samples collected during the phase 2 program have been sent to ALS for multi element analysis with results expected in approx 3 weeks. Meanwhile applications for drill permitting are underway with geological team from Bigrock to mobilise back to site for detailed geological mapping of broader anomalous areas for the purposes of identifying ideal sites for drill hole placement after the receipt of phase 2 sample results.

This announcement has been authorised for release by the Board of Pioneer Lithium Limited.

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Competent Persons Statement

The information in this report that relates to exploration results for the Skull Creek project in the USA is based on, and fairly represents, information and supporting documentation compiled and evaluated by Mark Couzens, Principal Geologist for the Company and who is a Member of the AusIMM. Mr. Couzens has sufficient experience relevant to the style of mineralisation, type of deposit under consideration, and the activity being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the Australian Code for Reporting of Exploration Results, Mineral Resources, and Ore Reserves (JORC Code). Mr. Couzens consents to the inclusion of the information in the form and context in which it appears. The information in the market announcement is an accurate representation of the available data and studies for the Skull Creek Project, Colorado.

Compliance Statement

This report contains information on the Skull Creek project extracted from ASX market announcements dated 30 January 2025, 2 April 2025 and 5 May 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. **No new exploration results are reported in this announcement.**

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.

PIONEER LITHIUM

Appendix B: JORC Code, 2012 Table 1

Section 1 Sampling Techniques and Data

(Criteria in this section apply to all succeeding sections)

Sampling techniques	• *Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.* • *Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.* • *Aspects of the determination of mineralisation that are Material to the Public Report.* • *In cases where 'industry standard' work has been done this would be relatively simple (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.*	• Radiometric readings are considered indicative of prospectivity for uranium, and not necessarily representative of uranium concentration. • Radiometric readings were recorded by placing the RC-102 detector at the bottom of the sample pit and recording the reading. • For phase 1 sampling contractors hand dug a hole below the O horizon targeting the B-C horizon where available or in its absence soil was taken from directly above the bedrock interface. Rockchip samples, weathered regolith and soils were all sampled during this orientation phase of sampling. • Sample was sieved to remove course material and plant/organic material. • For phase 1 an RS 125 used to record radiometric readings at the bottom of each hole. • Soil samples were greater than 500g of sample material. • Samples were taken on a 20 x 80m grid for phase 1 and 40 x 80m grid for phase 2. • For phase 2 sampling a hole was dug by hand to the contact between the soils and the weathered basement. A sample was then taken from the weathered basement. • Blanks, Standards and Duplicates were incorporated to approximate 10% of the total samples taken. • All samples were sent for multi-element geochemical analyses at an independent, certified laboratory
Drilling techniques	• *Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).*	• No drilling results are reported in this release.
Drill sample recovery	• *Method of recording and assessing core and chip sample recoveries and results assessed.* • *Measures taken to maximise sample recovery and ensure representative nature of the samples.* • *Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.*	• No drilling results are reported in this release.
Logging	• *Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.* • *Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.* • *The total length and percentage of the relevant intersections logged.*	• No drilling results are reported in this release • Surface rock-chip samples were qualitatively described, photographed, and recorded in a geospatial database.
Sub-sampling techniques and sample preparation	• *If core, whether cut or sawn and whether quarter, half or all core taken.* • *If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.* • *For all sample types, the nature, quality and appropriateness of the*	• No drilling results are reported in this release • Surface rock-chip samples were collected to represent the in-situ material

	sample preparation technique. • *Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.* • *Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.* • *Whether sample sizes are appropriate to the grain size of the material being sampled.*	
Quality of assay data and laboratory tests	• *The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.* • *For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.* • *Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.*	• Samples were sent to ALS Geochemistry in Reno, Nevada where they were prepared by crushing the entire sample to 2mm (70% passing) and a 250g aliquot is pulverized to 75 microns, then subject to an aqua-regia digest and analysed via ICP-MS. • Any high-grade Uranium results are to be subsequently analysed via XRF. • All soil and regolith sample batches were sent to the lab with blind certified reference materials (CRM), blanks, and duplicates • QA/QC samples were inserted in sequence with the primary samples on a 10% frequency. • Additionally, the laboratory provides their internal QA/QC reports. • The laboratory assay results were reported in parts per million (ppm). Phase 1 geochemistry results are not reported in oxide form and no stoichiometric oxide conversion has been applied. • For rock chips samples previously reported and included in this announcement An element to stoichiometric oxide conversion was applied to convert the ppm result into U_3O_8. The conversion used for uranium was a factor applied of 1.1792 to the ppm value. This factor was sourced from James Cook University at www.jcu.edu.au
Verification of sampling and assaying	• *The verification of significant intersections by either independent or alternative company personnel.* • *The use of twinned holes.* • *Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.* • *Discuss any adjustment to assay data.*	• No drilling results are reported in this release. • Coordinates and qualitative descriptions of all rock samples were recorded in notebooks and digitally recorded in a geospatial database
Location of data points	• *Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.* • *Specification of the grid system used.* • *Quality and adequacy of topographic control.*	• Sample locations were recorded using a handheld Garmin 64s GPS system with an accuracy of +/- 3m. • Radiometric data was at the bottom of each sample pit using the RC-102 detector with a software application that relies on a smartphone with an Android operating system and the device's GPS. • The grid system is UTM NAD83 Zone 12
Data spacing and distribution	• *Data spacing for reporting of Exploration Results.* • *Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.* • *Whether sample compositing has been applied.*	• Data spacing is sufficient for preliminary exploration work designed to assess the mineral prospectivity of the project area
Orientation of data in relation to geological structure	• *Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.* • *If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have*	• No drilling results are reported in this release

	introduced a sampling bias, this should be assessed and reported if material.	
Sample security	• *The measures taken to ensure sample security.*	• Samples were inventoried and remained in the custody of the supervising geologist until they were sealed in a container and shipped to ALS Geochemistry .
Audits or reviews	• *The results of any audits or reviews of sampling techniques and data.*	• Pioneer's sampling and QA/QC procedures conform with industry standard practices and have been reviewed by a Certified Professional Geologist (CP).

Section 2 Reporting of Exploration Results

(Criteria in this section apply to all succeeding sections)

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	• *Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.* • *The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.*	Bureau of Land Management (BLM) unpatented load mining claims record search (LR2000 and MLRS) was performed on 12/10/2024 and 12/11/2024 to validate the land position for Pioneer. Search parameters included the Township(s) where the claims are located and included all possible Case Disposition options. There are 126 unpatented lode mining claims filed under LIA Energy Corporation a subsidiary of Pioneer and are listed as "FILED" in the BLM's LR2000 and MRLS databases . These claims were staked between January 31st and February 4th, 2024. BLM records indicate that the maintenance payment was received on 08/21/2024 for all 126 claims. At the time of this report, all claims appear to be in good standing with the BLM. A conflicting claim package for "Hightest Resources" overlapping with Pioneer claims exists, the location and nature of which is presented in Appendix A. Of these conflicting claims, all but 12 of the Pioneer claims were located prior to the Hightest Resources claims (March 2024),establishing the majority (114) of the Pioneer claims as taking precedence over the conflicting Hightest claims. Twelve (12) conflicted Pioneer claims are partially or fully superseded by earlier-staked Hightest Resources claims (staked in October 2023). A total of 114 full claims are present within the Pioneer claim package. Twelve (12) claims are partially or fully superseded by earlier-staked Hightest Resources claims.
Exploration done by other parties	• *Acknowledgment and appraisal of exploration by other parties.*	According to the records from the U.S. Securities and Exchange Commission, Energy Metals Corporation acquired the Skull Creek Project by locating 197 federal mineral claims and an additional 1,280 acres of State of Colorado leases in June of 2006. Based on the information provided, it is unlikely that Energy Metals Corporation completed any work on the property prior to signing an option agreement with Bluerock Resources Ltd. On August 14, 2006, Bluerock Resources Ltd. announced the signing of an option agreement with Energy Metals Corporation (EMC) to form a joint venture on the Skull Creek Project in northwest Colorado, USA to earn up to 75% interest in the project. The joint venture explored the property for near surface uranium mineralisation amenable to open pit mining methods. A diamond drilling campaign was organized to establish confidence in the historical U3O8 resource as reported in a 1956 document prepared by the Geological Services of Moab Utah (McDougald and Mehl, 1956). The drilling program was designed to test for mineralisation in the lignite beds near surface and at depth at nine separate locations along the 12-mile (19km) strike of outcropping lignite beds. By November 16, 2006, Bluerock had announced that there were two diamond coring rigs drilling on the project. A review of available press releases show that Bluerock reported partial results from three holes drilled below the Blueflame Adit and encountered low-grade uranium mineralisation in both the hanging wall and footwall sandstones of the coal seam to a maximum depth of 160.7 meters (press release from Jan 19, 2007 not available at the time of drafting of this document). Coincident with drilling, Bluerock noted surface mapping and geophysical testing of the Sego Member of the Mesa Verde Formation for anomalous uranium. No results or details on this work are available. An attempt was made to permit the rehabilitation of the Blueflame Adit to confirm historical sampling results and develop a drilling plan to target near surface uranium mineralisation reportedly mined from the adit. No information is available on this endeavor.

Criteria	JORC Code explanation	Commentary
Geology	• *Deposit type, geological setting and style of mineralisation.*	The Skull Creek Project is located within the upper cretaceous strata of the Mesa Verde Group at the southern edge of the Uinta Uplift. The Mesa Verde group is composed of cyclical transgressive and regressive sequences associated with the cretaceous interior seaway. The Skull Creek Project is located at the edge of the cretaceous interior seaway; therefore, sea level changes resulted in alternating terrigenous and marine deposits including eolian sands, coastal sand deposits, tidal flats, and shales/greywackes with Bouma sequences. The uranium mineralisation in the Skull Creek area is found within the Sego member (previously Iles member) which is broadly correlative to the upper Castlegate Sandstone formation (Painter et al 2013). The Sego Sandstone in the Skull Creek area is comprised of sandstones, siltstones, and shales with as many as seven carbonaceous beds composed of lignite, coal, or black shale ranging from thin bedded (<0.5m) to as much as 2m thick. Of the seven carbonaceous beds only three have been previously identified as being prospective for uranium mineralization. Numbered from the bottom of the formation, beds (seams) 2, 3, and 5 are noted to contain anomalous uranium concentrations in the hundreds of parts-per-million (ppm) range while bed 2 may be in the thousands of ppm (McDougald 1956). All information regarding mineralisation at the Skull Creek Project is taken from McDougald and Mehl (1956), which indicates that lignite beds act as reductants that captured uranium leached from overlying felsic volcanics from oxidized low-temperature waters. The mineralisation model presented in McDougald and Mehl (1956) is consistent with the reported stratigraphic observations (e.g., lignite/coal beds), which are in turn supported by more recent work in the region (Painter et al 2013). The steeply inclined orientation of bedding along the flanks of the Skull Creek Dome, provided a hydraulic conduit for roll-front style waters through the formation (McDougald and Mehl, 1956; USGS mapping).
Drill hole Information	• *A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:* o *easting and northing of the drill hole collar* o *elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar* o *dip and azimuth of the hole* o *down hole length and interception depth* o *hole length.* • *If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.*	• Historical reports do not provide detailed drill hole data, such as collar coordinates, elevation, dip, azimuth, or hole lengths, and no justification for these omissions is provided.
Data aggregation methods	• *In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.* • *Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.* • *The assumptions used for any reporting of metal equivalent values should be clearly stated.*	• No data or information regarding historical drilling results, truncations, averaging and/or aggregating intercepts is present at the time of the preparation of this document.

Criteria	JORC Code explanation	Commentary
Relationship between mineralisation widths and intercept lengths	• *These relationships are particularly important in the reporting of Exploration Results.* • *If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.* • *If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').*	• Historical reports do not describe the geometry of mineralisation relative to drill hole angles, and down hole lengths are reported without clarifying true widths. • No drilling results are reported in this release
Diagrams	• *Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include but not be limited to a plan view of drill hole collar locations and appropriate sectional views.*	• Pertinent maps for this stage of the Project are included in the release.
Balanced reporting	• *Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.*	• Historical reports lack comprehensive grade and width data, with no indication of representative reporting practices for low and high grades to ensure balanced results. Drill data results from Bluerock Resources' 2006–2007 drill program are unavailable beyond the descriptions in this document, similarly, lacking supportive information to constrain representative interpretation (e.g., collar location, inclination, azimuth). Exploration data, as identified above, cannot be represented as comprehensive or representative at the time of this report
Other substantive exploration data	• *Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.*	• No additional exploration data is available at the time of preparation of this document.
Further work	• *The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).* • *Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.*	• Given the large (17km) strike length and broadly untested down dip extension of mineralisation from historical surface working/documentation, the evaluation and investigation of uranium mineralisation is deemed early stage. • Aerial and/or ground-based spectral and/or geophysical surveys • Ground-based exploration activities including geological mapping, rock-chip sampling, and soil sampling • Evaluate and develop a drilling plan to test the down-dip projections of known mineralisation occurrences