ASX Announcement | 16 August 2023

Multiple Spodumene Bearing Pegmatite Dykes Discovered at the Trieste Lithium Project, James Bay, Canada

Highlights:

- **Loyal Lithium is excited to announce a significant development in the ongoing field program at the Trieste Lithium Project, with the discovery of five spodumene bearing pegmatite dykes.**
- **The five spodumene bearing pegmatite dykes, with aligned implied continuous outcrops, have been identified within a 6 km^2 area to the south of the Trieste Greenstone Belt, situated in a metasediment host – leaving several high value greenstone targets yet to be explored.**
- **Preparation for drilling activities will now commence with the existing in-field team from Dahrouge Geological Consulting (DGC) increasing to 19 field crew.**
- **The field program will also be enhanced to include additional tasks such as channel sampling, LiDAR surveys and high-resolution geophysics.**
- **Loyal Lithium's discovery of multiple spodumene bearing dykes marks the first occurrence along the Trieste Greenstone Belt outside of the known spodumene bearing pegmatites of Winsome Resources' (WR1) Adina-Jamar discovery, located only 14km to the west.**
- **Loyal Lithium attributes its early exploration success to the comprehensive winter program that informed the design of the ongoing field operations.**
- **Loyal Lithium remains the single largest landholder within the highly prospective Trieste Greenstone Belt, with a land position of 251 km^2.**
- **Note: Visual estimates of mineral abundance should never be considered a proxy or substitute for laboratory analyses where concentrations or grades are the factor of principal economic interest. Visual estimates also potentially provide no information regarding impurities or deleterious physical properties relevant to valuations.**

Loyal Lithium Limited (ASX:LLI) (**Loyal Lithium**, **LLI**, or the **Company**) is pleased to announce a significant breakthrough in ongoing fieldwork at the Trieste Lithium Project, with the discovery of five spodumene bearing pegmatite dykes, each consisting of a series of outcrops (Figure 1) with samples taken for assay and geological observations recorded (Appendix 1). The discoveries are situated in a metasediment hosted area south of the Trieste Greenstone Belt, with many high-value pegmatite targets within the greenstone yet to be explored. Preparation for drilling activities will now commence and the field program will now be enhanced to include channel sampling, LiDAR and geophysics. Loyal Lithium's discovery of multiple spodumene bearing dykes marks the first occurrence along the Trieste Greenstone Belt outside of the known spodumene rich pegmatites of Winsome Resources' (WR1) Adina-Jamar discovery, located only 14km to the west[1].

Loyal Lithium's Managing Director, Mr. Adam Ritchie, commented:
"These discoveries are a true credit to the Loyal Lithium team and partners. We are passionate about Lithium and on a mission to play a part in the North American Lithium supply chain."

"Although still very early, we are excited by the potential of this fertile area south of the Trieste greenstone. The discovery of five spodumene rich dykes gives us great confidence as we accelerate our exploration activities and prepare for drilling."

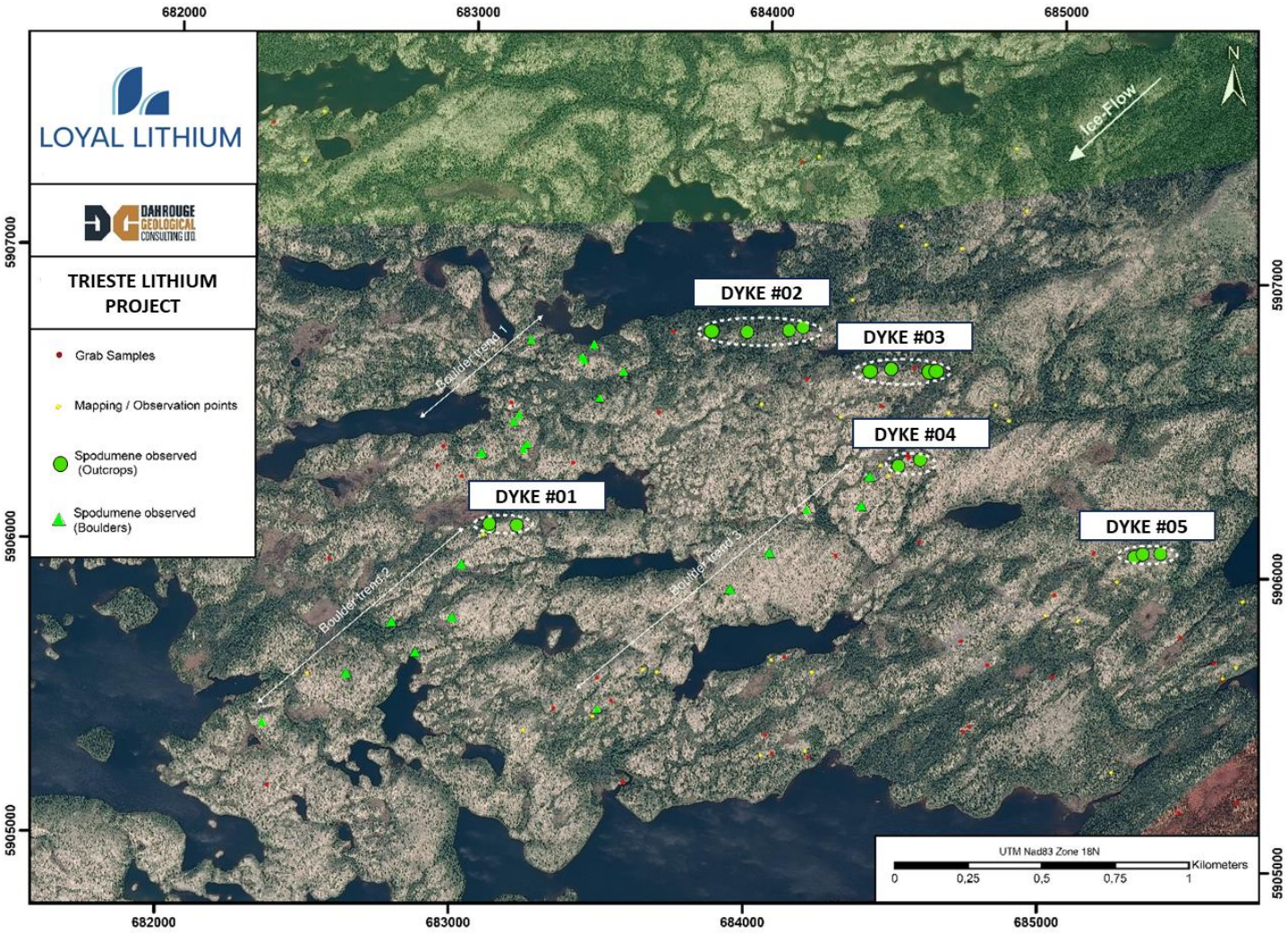


Figure 1: Trieste Lithium Project Spodumene bearing Pegmatite cluster south of the Trieste Greenstone Belt (green overlay) on a true colour 2015 Pleiades satellite plan image (© CNES 2015, Distribution AIRBUS DS)

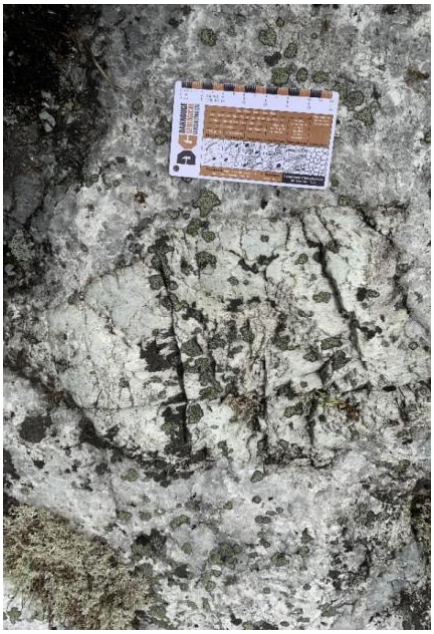
The five spodumene bearing pegmatite dykes discovered are within a 6 km^2 area to the south of the Trieste Greenstone Belt. The resistive spodumene bearing pegmatite dykes are prominent in the landscape with the most western discovery (Dyke #01) being described as a hill (see Photo 1).

Photo 1: Dyke #01, outcrop TR23AS-15. An in-situ dyke hill mapped as a spodumene-quartz-feldspar-muscovite pegmatite. Photo view to the northwest, with an A-Star helicopter shown in the very west.

Photo 2: Dyke #01, outcrop TR23AS-15. An in-situ dyke hill mapped as a spodumene-quartz-feldspar-muscovite pegmatite. Photo view to the northeast. DGC geological field crew inspecting the discovery.

The Spodumene has been identified by two Field Crew Team Leaders, who are all members of the Ordre des Géoilogues du Québec, and confirmed by the JORC CP, with the largest twined crystal of spodumene found in Dyke #5 at an exceptional 1.4m in length along the C axis (Photo 3), however many large Spodumene sized crystals have been noted across the five discovery sites (see Photos 1 to 12b).

Photo 3: Dyke #05, outcrop TR23JW-009. A 1.4m long twin spodumene mineral crystal in outcrop with a DGC Geological Field Crew member (*verbal approval received from DGC Team Leader and the Crew Member*)



Photos 4 and 5: Dyke #04, outcrop TR23PS-009. Large spodumene crystals in outcrop.

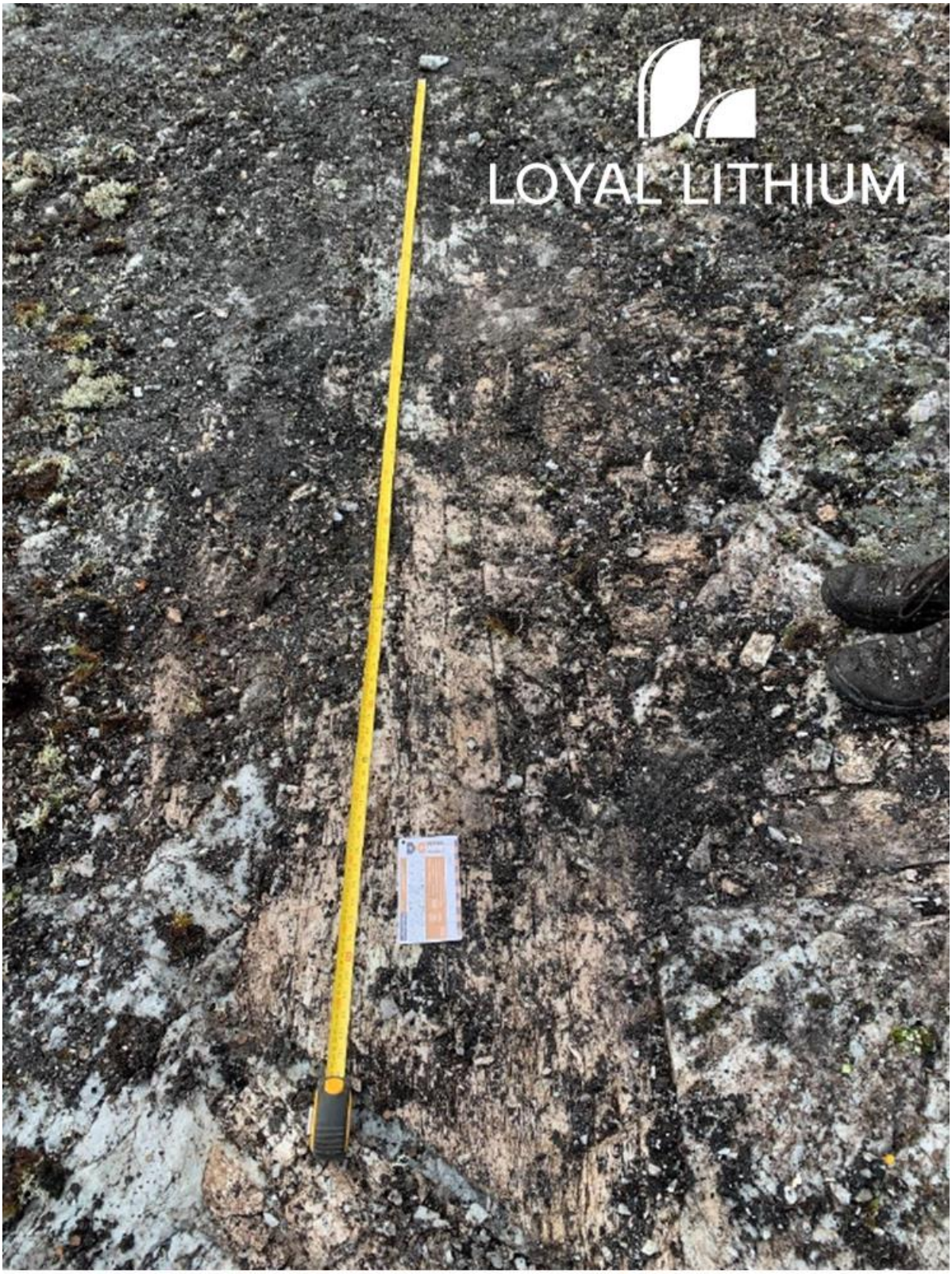


Photo 6: Dyke #04, outcrop TR23PS-009. A 1.0m spodumene crystal in outcrop.

Photo 7: Geological Field Crew investigating the spodumene bearing outcrop, Dyke #04 and sample site TR23PS-012.

Photo 8 and 9: Identification of spodumene at Dyke #04, outcrop TR23PS-012.

Photo 10: Dyke #03, outcrop TR23LV-009. DGC Geologist standing on an in-situ dyke mapped as a spodumene-quartz-feldspar-muscovite pegmatite.

Photo 11: Dyke #02, outcrop TR23PS-029. DGC Geologist standing on an in-situ dyke mapped as a spodumene-quartz-feldspar-muscovite pegmatite.

Photos 12a & 12b: Dyke #02, outcrops TR23PS-029 (left) and TR23PS-028 (right) with spodumene crystals.

NEXT STEPS – DRILLING & ENHANCED FIELD PROGRAM

Preparations will now commence for an upcoming drilling campaign, marking a pivotal phase in the project's advancement. The field program will also be enhanced to incorporate channel sampling, LiDAR surveys, and high-resolution geophysics to advance Loyal Lithium's understanding of the geological landscape. The experienced Dahrouge Geological Consulting team will expand to 19 field crew members, supported by a minimum of 2 helicopters. Collected samples have been meticulously catalogued, transported to the field camp, and are en route to SGS Laboratory for total digestion sodium peroxide assay analysis, with results anticipated in approximately 6 weeks.

Loyal Lithium's summer field program is a prioritised and comprehensive prospecting, outcrop rock chip and glacial till sampling initiative. The program's prospecting focus is high value targets that were identified through the inputs collected and assessed during the Canadian winter of 2022/2023. The abundance of historical and new data collected by Loyal Lithium has directed the Company's efforts towards the highly prospective northwest zone, which encompasses a volcanic mafic "greenstone" belt and a large pegmatite-de-tilly intrusive to the south of the greenstone belt. Additionally, a smaller zone in the southeast features comparable geological occurrences. These zones are shown categorised in Figure 2 below as first order of priority.

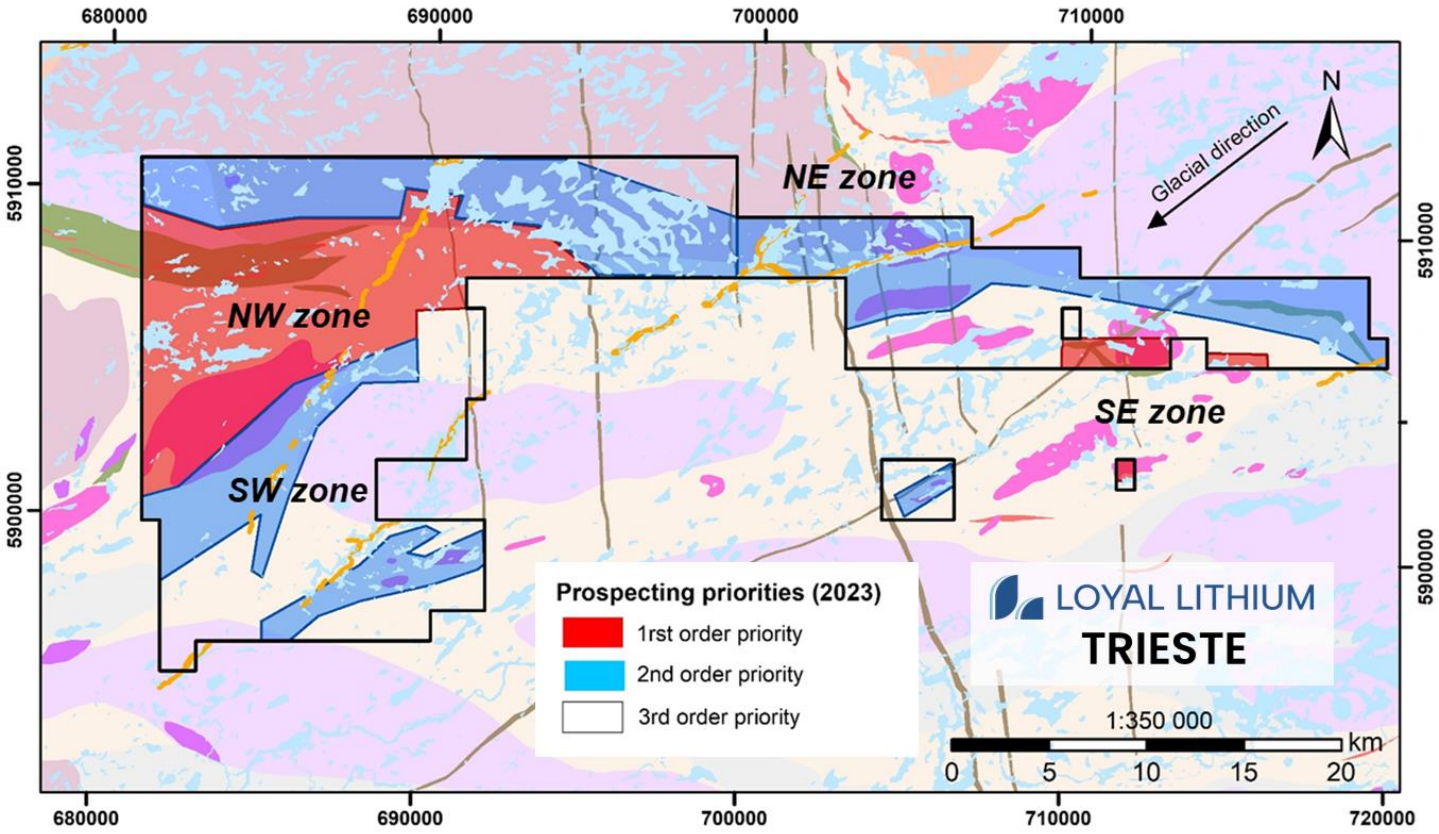


Figure 2 – Trieste Lithium Project –Summer Field Program Areas Prioritised

The extensive prospecting program aims to collect rock chip samples from the prioritised areas. The first priority is to complete systematic and closely spaced traverses in the NW zone, focusing on the high-value targets. Soil and glacial till will also be sampled on traverses across the Tilly intrusive, situated south of the greenstone belt, and in the areas with limited historical mapping, located east of the greenstone, where extensions of the structure are interpreted to occur. Furthermore, the first priority southeast zone will also have systematic and closely spaced traverses conducted due to the historical observation of crystal structures within a pegmatite among the greenstone.

The objective of the comprehensive till sampling program is to collect samples of the high priority targets, utilizing a tight sample grid due to the potential for the occurrence of Lithium-bearing pegmatites. Wider-spaced lines will be used to detect signals across the rest of the property. A tight sample spacing will be deployed along the sampling grid lines to better locate any anomalous source(s). If any anomalies are detected across the regional (wider-spaced) sample lines, they will be considered for a subsequent sampling program.

Loyal Lithium's extensive Canadian winter of 2022/2023 program has informed the design of this comprehensive summer program. Inputs such as a regional/local geological assessments, historical data review (outcrop, geochemical, till, and lake samples), high-resolution aeromagnetic analysis, and multispectral analysis have all been essential inputs and have enable focused and efficient exploration techniques are utilized at the highly prospective Trieste Lithium Project.

THE TRIESTE LITHIUM PROJECT

The 100% owned Trieste Lithium Project[2,3,4,5] (Figure 3) is a large-scale lithium Project located 14km east of Winsome Resources' (ASX: WR1) Adina Lithium Project drill hole that recently recorded a significant Lithium mineralised intercept of 1.34% over 107.6m[(1)]. Importantly, Loyal Lithium acquired the Trieste Lithium Project in October 2022 prior to the recent drill campaign results at the Adina Lithium Project.

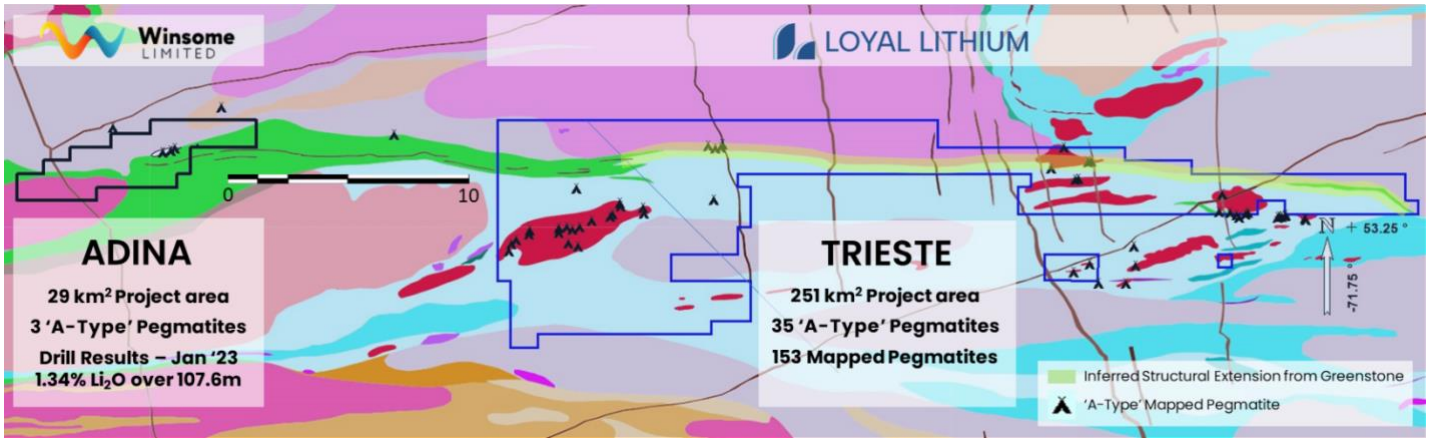


Figure 3 - Trieste Lithium Project – GSQ Region Interpretation (1:100k)

Loyal Lithium is the largest land holder within the highly prospective Trieste Greenstone Belt. The Trieste Lithium Project covers 251 km^2, which is 8.6 times larger than Winsome Resources' (ASX: WR1) Adina Lithium Project. The project area includes a 39 km long contact zone in the Trieste Greenstone Belt with a significant amount of historical data. Although the Project hasn't ever previously been explored for lithium, it does contain an anomalous historical lithium assay site and high values of newly identified pegmatite lithium indicator elements including caesium, rubidium, gallium, tin, beryllium and boron.

This announcement has been authorised for release by Loyal Lithium's Board of Directors

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About Loyal Lithium

Loyal Lithium Limited (ASX: LLI) is a well-structured listed resource exploration company with projects in Tier 1 North American mining jurisdictions in the Northwest Territories, Canada, James Bay Lithium District in Quebec, Canada and Nevada, USA. Through the systematic exploration of its projects, the Company aims to delineate JORC compliant resources, creating value for its shareholders.

Future Performance

This announcement may contain certain forward-looking statements and opinion Forward-looking statements, including projections, forecasts and estimates, are provided as a general guide only and should not be relied on as an indication or guarantee of future performance and involve known and unknown risks, uncertainties, assumptions, contingencies and other important factors, many of which are outside the control of the Company and which are subject to change without notice and could cause the actual results, performance or achievements of the Company to be materially different from the future results, performance or achievements expressed or implied by such statements. Past performance is not necessarily a guide to future performance and no representation or warranty is made as to the likelihood of achievement or reasonableness of any forward-looking statements or other forecast. Nothing contained in this announcement, nor any information made available to you is, or and shall be relied upon as, a promise, representation, warranty or guarantee as to the past, present or the future performance of Loyal Lithium Limited.

Qualified and Competent Person

The information in this announcement that relates to exploration results, is based, and fairly reflects, information compiled by Mr Darren Allingham, who is the Company's geologist. Mr Allingham is a Fellow of the Australian Institute of Geoscientists. Mr Allingham has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and the activity he is undertaking to qualify as a Competent Person as defined in the 2012 Edition of the Australasian Code for Reporting of Exploration Results and Mineral Resources (JORC Code). Mr Allingham consents to the inclusion in the announcement of the matters based on the information in the form and context in which it appears.

References

[1] ASX Announcement WR1: 6th January 2023. Strong lithium mineralisation recorded from first Adina drill hole assays

[2] ASX Announcement LLI: 27 February 2023. High Resolution Aeromagnetic Survey completed at Trieste Lithium Project to support Pre-emptive Drilling Permit Application

[3] ASX Announcement LLI: 20th October 2022. Monger triples land position with the acquisition of the Trieste Lithium Project in the James Bay Lithium District, Quebec

[4] *ASX Announcement LLI: 27 March 2023 Identification of Multiple High Value Targets at Trieste Lithium Project, James Bay, Canada*

[5] *ASX Announcement LLI: 07 August 2023 Inaugural Field Program Commenced at Trieste Lithium Project*

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APPENDIX 1: Samples, outcrop and group details

Sample number	Outcrop/Group Name	Easting UTM NAD83 Zone18	Northing UTM NAD83 Zone18	Rock Type	Sample Type	Spodumene (%) range visual estimate surrounding sample
C00428051	TR23AS-01	689814	5909445	pegmatite	Outcrop	0
C00428052	TR23AS-02	696306	5857245	pegmatite	Outcrop	0
C00428053	TR23AS-03	689772	5909548	pegmatite	Outcrop	0
C00428054	TR23AS-03	689772	5909548	pegmatite	Outcrop	0
C00428055	TR23AS-04	689824	5909498	pegmatite	Outcrop	0
C00428056	TR23AS-07	689929	5909470	pegmatite	Outcrop	0
C00428057	TR23AS-08	690059	5909589	pegmatite	Outcrop	0
C00428058	TR23AS-09	687084	5904596	pegmatite	Outcrop	0
C00428059	TR23AS-10	687266	5905087	pegmatite	Outcrop	0
C00428061	TR23AS-10	687266	5905087	pegmatite	Outcrop	0
C00428063	TR23AS-12	687223	5905174	pegmatite	Outcrop	0
C00428065	TR23AS-15	683096	5906098	pegmatite	Outcrop	10-20
C00428066	TR23AS-15	683095	5906086	pegmatite	Outcrop	10-20
C00428067	TR23AS-15	683097	5906087	pegmatite	Outcrop	10-20
C00428068	TR23AS-15	683189	5906096	pegmatite	Outcrop	10-20
C00428069	TR23AS-17	684050	5906034	pegmatite	Outcrop	10-20
C00428070	TR23AS-18	684114	5905679	pegmatite	Outcrop	0
C00428071	TR23AS-20	684968	5899699	pegmatite	Outcrop	0
C00428072	TR23AS-21	684058	5905413	pegmatite	Outcrop	0
C00428073	TR23AS-22	684082	5905344	pegmatite	Outcrop	0
C00428074	TR23AS-25	684205	5905342	pegmatite	Boulder	0
C00428075	TR23AS-26	684730	5905447	pegmatite	Outcrop	0
C00428076	TR23AS-26	684750	5905464	pegmatite	Outcrop	0
C00428077	TR23AS-29	685026	5905643	pegmatite	Outcrop	0
C00428078	TR23AS-31	682996	5906257	pegmatite	Boulder	0
C00428079	TR23AS-30	683209	5906092	pegmatite	Boulder	10
C00428081	TR23AS-33	682931	5906357	pegmatite	Boulder	0
C00428082	TR23AS-34	683060	5906340	pegmatite	Boulder	5-10
C00428083	TR23AS-34	683057	5906334	pegmatite	Boulder	5-10
C00428084	TR23AS-53	685667	5906916	pegmatite	Outcrop	0
C00428085	TR23AS-46	684117	5907364	pegmatite	Outcrop	0
C00428086	TR23AS-53	685669	5906914	pegmatite	Outcrop	0
C00428087	TR23AS-54	685567	5906669	pegmatite	Boulder	0
C00428088	TR23AS-53	685604	5906907	pegmatite	Outcrop	0
C00428090	TR23AS-35	683167	5906449	pegmatite	Boulder	10-20
C00428091	TR23AS-40	683204	5906359	pegmatite	Boulder	10-20
C00428092	TR23AS-40	683215	5906375	pegmatite	Boulder	10-20
C00428093	TR23AS-39	683218	5906727	pegmatite	Outcrop	0
C00428094	TR23AS-41	683395	5906668	pegmatite	Boulder	>20
C00428095	TR23AS-41	683393	5906678	pegmatite	Boulder	>20

Sample	Outcrop/Group	Easting	Northing	Rock	Sample	Spodumene (%) range
C00428096	TR23AS-42	683431	5906722	pegmatite	Boulder	10-20
C00428097	TR23AS-43	683534	5906634	pegmatite	Boulder	>20
C00428098	TR23AS-44	683456	5906540	pegmatite	Boulder	10-20
C00428607	TR23PS-001	689812	5909187	pegmatite	Outcrop	0
C00428608	TR23PS-002	689639	5909078	pegmatite	Boulder	0
C00428609	TR23PS-003	689212	5909755	pegmatite	Outcrop	0
C00428610	TR23PS-004	689443	5909667	pegmatite	Boulder	0
C00428611	TR23PS-005	684276	5906031	pegmatite	Boulder	0
C00428612	TR23PS-006	684357	5906204	pegmatite	Boulder	10-20
C00428613	TR23PS-007	684383	5906305	pegmatite	Boulder	1-5
C00428614	TR23PS-009	684553	5906367	pegmatite	Outcrop	10-20
C00428615	TR23PS-010	684507	5906381	pegmatite	Outcrop	0
C00428616	TR23PS-011	684513	5906371	pegmatite	Outcrop	0
C00428617	TR23PS-012	684480	5906343	pegmatite	Outcrop	10-20
C00428618	TR23PS-014	682773	5905754	pegmatite	Boulder	5-10
C00428619	TR23PS-015	682858	5905655	pegmatite	Boulder	1-5
C00428621	TR23PS-017	683335	5905479	pegmatite	Boulder	1-5
C00428622	TR23PS-018	683581	5905236	pegmatite	Boulder	1-5
C00428623	TR23PS-018	683579	5905235	pegmatite	Outcrop	1-5
C00428625	TR23PS-021	653530	5905512	pegmatite	Outcrop	0
C00428627	TR23PS-022	683480	5905588	pegmatite	Outcrop	0
C00428628	TR23PS-025	682979	5905778	pegmatite	Boulder	5-10
C00428629	TR23PS-026	683016	5908015	pegmatite	Outcrop	0
C00428630	TR23PS-028	684139	5906803	pegmatite	Outcrop	10-20
C00428631	TR23PS-028	684092	5906791	pegmatite	Outcrop	10-20
C00428632	TR23PS-029	683950	5906780	pegmatite	Outcrop	10-20
C00428633	TR23PS-030	683817	5906780	pegmatite	Outcrop	10-20
C00428634	TR23PS-031	687084	5906665	pegmatite	Boulder	1
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C00428636	TR23PS-033	687498	5906918	pegmatite	Boulder	0
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C00428638	TR23PS-035	687607	5907148	pegmatite	Outcrop	0
C00428639	TR23PS-035	687585	5907159	pegmatite	Boulder	0
C00428641	TR23PS-035	687602	5907148	pegmatite	Outcrop	0
C00428652	TR23AV-001	690080	5909389	pegmatite	Outcrop	0
C00428653	TR23AV-002	690247	5909438	pegmatite	Outcrop	0
C00428654	TR23AV-003	690184	5909378	pegmatite	Outcrop	0
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C00428661	TR23AV-009	687573	5905504	pegmatite	Outcrop	0
C00428662	TR23LV-002	683373	5906316	pegmatite	Outcrop	0

Sample	Outcrop/Group	Easting	Northing	Rock	Sample	Spodumene (%) range
C00428663	TR23LV-003	683660	5906497	pegmatite	Boulder	0
C00428664	TR23LV-004	683698	5906773	pegmatite	Outcrop	0
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C00428666	TR23LV-007	684414	5906544	pegmatite	Boulder	0
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C00428668	TR23LV-009	684444	5906672	pegmatite	Outcrop	0
C00428669	TR23LV-010	684522	5906677	pegmatite	Outcrop	0
C00428670	TR23LV-012	683921	5905905	pegmatite	Boulder	<1
C00428671	TR23LV-013	683005	5905959	pegmatite	Boulder	5-10
C00428672	TR23LV-014	682625	5905576	pegmatite	Boulder	5-10
C00428673	TR23LV-015	682370	5905186	pegmatite	Boulder	10-20
C00428674	TR23LV-017	682497	5905569	pegmatite	Boulder	0
C00428675	TR23LV-018	682554	5905962	pegmatite	Boulder	0
C00428676	TR23LV-021	685669	5905237	pegmatite	Outcrop	0
C00428677	TR23LV-022	686024	5904692	pegmatite	Outcrop	0
C00428679	TR23LV-024	686345	5904685	pegmatite	Boulder	0
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C00428705	TR23JW-006	689720	5909551	pegmatite	Outcrop	0
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C00428707	TR23JW-009	685381	5906075	pegmatite	Outcrop	10-20
C00428708	TR23JW-009	685321	5906071	pegmatite	Outcrop	10-20
C00428709	TR23JW-009	685292	5906060	pegmatite	Outcrop	10-20
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C00428711	TR23JW-013	685605	5905655	pegmatite	Outcrop	0
C00428712	TR23JW-013	685606	5905653	pegmatite	Outcrop	0
C00428713	TR23JW-013	685606	5905652	pegmatite	Outcrop	0
C00428714	TR23JW-014	685575	5905708	pegmatite	Outcrop	0
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C00428716	TR23JW-016	681407	5908555	pegmatite	Boulder	0
C00428717	TR23JW-018	681834	5908551	pegmatite	Boulder	0
C00428718	TR23JW-019	681993	5907263	pegmatite	Outcrop	0
C00428719	TR23JW-022	682315	5907439	pegmatite	Outcrop	0
C00428721	TR23JW-025	685816	5905454	pegmatite	Outcrop	0
C00428722	TR23JW-028	685967	5905583	pegmatite	Outcrop	0
C00428723	TR23JW-028	685969	5905599	pegmatite	Outcrop	0

Sample	Outcrop/Group	Easting	Northing	Rock	Sample	Spodumene (%) range
C00428724	TR23JW-028	685957	5905606	pegmatite	Outcrop	0
C00428725	TR23JW-030	686035	5905611	pegmatite	Outcrop	0
C00428726	TR23JW-031	686158	5905803	pegmatite	Outcrop	0
C00428727	TR23JW-033	686154	5905568	pegmatite	Outcrop	0
C00428728	TR23JW-033	686133	5905564	pegmatite	Outcrop	0
C00428729	TR23JW-035	686255	5905417	pegmatite	Outcrop	0
C00428730	TR23JW-036	685471	5905197	pegmatite	Outcrop	0
C00428731	TR23JW-037	684596	5906671	pegmatite	Outcrop	0
C00428732	TR23JW-037	684605	5906676	pegmatite	Outcrop	0
C00428733	TR23JW-037	684588	5906671	pegmatite	Outcrop	0
C00428734	TR23JW-047	685434	5907165	pegmatite	Outcrop	0
C00428735	TR23JW-049	685580	5907357	pegmatite	Outcrop	0
C00428736	TR23JW-056	683072	5906055	pegmatite	Boulder	0
C00428737	TR23JW-057	682864	5905811	pegmatite	Boulder	0
C00428751	TR23TD-002	685153	5906069	pegmatite	Boulder	0
C00428752	TR23TD-003	685024	5905921	pegmatite	Boulder	0
C00428753	TR23TD-010	687064	5906669	pegmatite	Boulder	0
C00428754	TR23TD-17	681950	5906247	pegmatite	Boulder	0
C00428755	TR23TD-19	682261	5906758	pegmatite	Outcrop	0
C00482062	TR23AS-11	687256	5905126	pegmatite	Outcrop	0
C00482064	TR23AS-13	687159	5905081	pegmatite	Outcrop	0

Note 1: Outcrop samples are pegmatite determined to be in-situ. Bouler samples are glacial till surface rock

Note 2: Visual estimates of mineral abundance should never be considered a proxy or substitute for laboratory analyses where concentrations or grades are the factor of principal economic interest. Visual estimates also potentially provide no information regarding impurities or deleterious physical properties relevant to valuations.

JORC Code, 2012 Edition – Table 1 report template

Section 1 Sampling Techniques and Data

(Criteria in this section apply to all succeeding sections.)

Criteria	JORC Code explanation	Commentary
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.*	• Since acquiring the Trieste Lithium Project, Loyal Lithium has started new exploration work in the form of field mapping and sampling on the Project, that is in progress, so this is an interim announcement of qualitative results. This program currently in progress consists of field mapping outcrops identified in desktop studies, before the field visit, from satellite visible, infrared and lithium combination ratio imagery. Also, historical outcrop sample assays and geological interpretations were used to prioritise sampling areas. No sample assays are provided in this announcement with outcrop and glacial till boulder float grab samples to be shipped to SGS Quebec for multielement analysis and sodium peroxide digest lithium analysis. • In early 2023, Loyal Lithium carried out a core re-logging and re-sampling program on drill holes completed on the Project by Osisko Mining Inc. in 2015 and 2017. • The historical drill holes comprised ten holes of NQ-sized core totalling 1,559 m in 2015 and three holes of NQ-sized core totalling 636 m in 2017. • Re-logging and re-sampling focused on historical pegmatite intervals logged by Osisko; eleven out of the thirteen holes were re-evaluated, made up of eight holes from 2015 and three holes from 2017. • Pegmatite intervals within the drill holes was reoriented, re-marked with m intervals, re-photographed, and new sample numbers were assigned to the pegmatite intervals chosen to be sent for assay. • The core was cut in half, or in quarters if previously sampled by Osisko, on site by an electric core saw. • Core was sampled at 1 m intervals or shorter if sampling near contacts. The minimum size sampled was 0.5 m and the longest was 1 m. • Quartz blanks were inserted roughly once in every ten samples across the sample stream as part of the QA-QC program. • A total of 321 samples that comprise 281 half-core samples, 9 quarter-core samples, and 31 quartz blanks were submitted to SGS Laboratories in Lakefield, Ontario for processing.

Criteria	JORC Code explanation	Commentary
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).*	• Loyal Lithium re-analysed the diamond drilling completed by Osisko in 2015 and 2017. • Ten NQ sized diamond drill holes totalling 1,559 m were completed in 2015 and three NQ sized diamond drill holes totalling 636 m were completed in 2017. • The core was not oriented.
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.*	• It is assumed Osisko abided by industry standard protocols to ensure reliable sample recovery and that no sample biases may have occurred. • Loyal Lithium utilized maximum and minimum core sample intervals and did not sample across lithological boundaries to ensure no sample bias occurred.
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.*	• 2023 field mapping and sampling. Historical data and interpretations and targets identified in satellite imagery identified as pegmatite were planned for the 2023 field visit. Outcrop and glacial till samples were described geologically qualitatively. A sample was collected for laboratory analysis. All data is stored digitally on tablets and backed up daily. • The core was previously logged by Osisko Mining and was stored at Mirage Adventure Outfitter following completion of the 2015 and 2017 programs. The logs were evaluated prior to mobilization of the geological crew and historically logged pegmatite intervals were selected for core evaluation and resampling. • Core was reoriented, pieced, and marks placed every meter utilizing drilling blocks to identify downhole depths. • Geologists qualitatively relogged pegmatite intervals with a focus on mineralogy. • Pegmatite intervals were rephotographed. • In total, 47 pegmatite intervals, totalling 246.50 m, from 11 holes were relogged and 290 core samples sent for assay.
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 sample preparation technique.*	• Dry, crush, pulverise (no samples assays are provided for the 2023 field work • Core was sampled at 1 m intervals or shorter if sampling near contacts. The minimum size sampled was 0.5 m and the longest was 1 m. • Quartz blanks were inserted roughly once in every ten samples across

Criteria	JORC Code explanation	Commentary
	• *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.*	the sample stream as part of the QA-QC program. • The core was cut in half, or in quarters if previously sampled by Osisko, on site by an electric core saw. • All samples collected were shipped to SGS Canada's laboratory in Lakefield, ON, for standard sample preparation (code PRP89) which includes drying at 105°C, crushed to 75% passing 2 mm, riffle split 250g, and pulverized 85% passing 75 microns. • The pulps were shipped by air to SGS Canada's laboratory in Burnaby, BC, where the samples were homogenized and subsequently analyzed for multi-element (including Li and Ta) using sodium peroxide fusion with ICP-AES/MS finish.
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 collected by Loyal Lithium in 2023 were analysed using 50g dissolution in sodium peroxide (total Lithium digestion) coupled with ICP-AES+MS 57 (57 elements), SGS internal code GE_ICM91A50 which is appropriate for lithium exploration • Quartz blanks were inserted roughly once in every ten samples across the sample stream as part of the internal quality control procedures. • Analytical procedures are considered adequate for the early-stage nature of the programs. • SGS Canada are ISO 17025 certified and implement routine Quality Assurance and Quality Control (QA/QC) protocols during the analytical process. The procedures include using pulp duplicates and internally certified reference materials. • The Competent Person consider the sample and analytical procedures acceptable for an early-stage project.
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 additional verification or testing was completed during this evaluation. • All original assay data is stored in a database in an as-received basis with no adjustment to the returned data.
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.*	• 2023 sample locations picked up using a GPS Max 64SX and 66S. • Historical collar locations were obtained from the SIGEOM database and are georeferenced. • Data is stored in UTM NAD 83 Zone 18N projection format.

Criteria	JORC Code explanation	Commentary
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.*	• Loyal Lithium focused on and resampled pegmatite intervals from Osisko's 2015 and 2017 drilling campaigns.
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 introduced a sampling bias, this should be assessed and reported if material.*	• The 2015 and 2017 Osisko drilling campaigns were not conducted for lithium exploration and were not targeting the pegmatite dykes that they intercepted.
Sample security	• *The measures taken to ensure sample security.*	• The area is remote and only DGC field staff are at a base camp. Samples are transported after cataloguing by helicopter daily back to the base camp and then transferred to a locked in a room and then transferred to a truck driven by DGC field crew and dropped off directly to the laboratory. • For historical drill samples. Site employees were the only personnel with access to samples once they were obtained from the Mirage Lodge core storage area. • New samples were given a unique sample number that was provided for analysis. Each sample tag listed the project name and sample number. • Laboratory services were in secure compounds.
Audits or reviews	• *The results of any audits or reviews of sampling techniques and data.*	• No audits or reviews of sampling techniques or data were completed on 2023 field mapping and sampling or core relogging and sampling.

Section 2 Reporting of Exploration Results

(Criteria listed in the preceding section also apply to this section.)

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*	• The Trieste Lithium Project is located in the James Bay Region, Quebec, Canada and is centred on 53°18'00"N, 72°02'00"W, within NTS sheets 33H08, 33H01, 23E05 and 23E04. • The Project comprises 466 mining claims totalling 24,033.94 ha and is divided into three (3) discontinuous claim blocks extending over 38 km in an east-west direction (Figure 2 2). The Trieste Lithium Project was originally acquired by Loyal Lithium Ltd. (previously Monger Gold) in

Criteria	JORC Code explanation	Commentary
	area.	October 2022 through both online map staking and agreements: ○ 228 claims were entered into an option agreement with Osisko Development Corporation. ○ 12 claims were acquired from Noranda Royalties ○ 226 claims were acquired through online map staking by Monger Gold in October 2022 (with 126 of these claims entered into an 1% NSR agreement with Jody Dahrouge and Loyal Lithium Ltd.) • The claims are currently registered under two different company names: 228 claims under Osisko Baie-James SENC, and 238 under Projet Trieste Lithium Inc. (a subsidiary of Loyal Lithium Ltd.). • All 466 claims that comprise the Project are in good standing as of the Effective Date of this report. • The work expenditure required to satisfy the current term for all 466 claims that comprise the Project is $602,130, $2500 per claim for 228 claims and $135 per claim for 238 claims. The combined excess expenditure currently attributed to the Project is $343,406.00. • The combined renewal fee for the Project required to satisfy the current term for all 467 claims, due prior to claim expiry (i.e., the Anniversary Date), is $79,220 ($170 per claim). As of the Effective Date of this report, the Anniversary Dates for the Project vary between March 13, 2023, and October 19, 2025.
Exploration done by other parties	• *Acknowledgment and appraisal of exploration by other parties.*	• The first known acquisition of mineral claims within the area of the current Trieste Lithium Project, was in 1998 with a joint venture between Virginia Gold Mines and Cambior called the Caniapiscau Property. The Caniapiscau Property consisted of three different areas; the Bloc Est and Bloc Ouest areas fall within the current Project boundary and the Noella area is north of the current Project. Numerous field programs were executed from 1998 to 2001 including prospecting, mapping, geophysical surveys and channel sampling targeting precious metals (GM 57170, GM 58442, GM 59201). No drilling on the Project area was recorded during that time. • Virginia Mines Inc. increased their land holding in the area in 2007 and signed a joint venture agreement with Breakwater Resources on the

Criteria	JORC Code explanation	Commentary
		Trieste Property, which encompassed the historical Caniapiscau Property and makes up the western portion of the current Trieste Lithium Project. An intensive prospecting and mapping program was executed in the summer of 2007 resulting in the discovery of several Au mineralized outcrops and boulders. A total of 326 outcrops were described from which 94 outcrop samples and 95 boulder samples were collected from within the current Trieste Lithium Project boundary (GM63378). • In 2009, Virginia Mines followed up anomalous values the 2007 exploration work with prospecting and till sampling that resulted in the collection of 235 rock samples and 155 till samples from the Trieste Property (GM65024). In 2011, additional prospecting and mapping took place on the Trieste Property with 169 outcrops and 114 boulders described and 203 rock samples collected (GM 66254). Another significant ground exploration program was completed in 2012, with 155 outcrops and 52 boulders described with 104 rock samples collected. An additional 25 trenches were excavated using a heli-portable excavator to test various geophysical and geochemical anomalies (GM67952). All samples collected from 2009 to 2012 fall within the current Trieste Project area. • Numerous geophysical surveys were completed by Virginia Mines from 2008 to 2012 including a 2009 IP survey (40 line-km) (GM64304), 2009 EMH Survey (49.5 line-km) (GM64304), 2011 Heliborne HD magnetic survey (3,320 line-km) (GM65712), and a 2012 IP survey and line cutting (108.25 line-km) (GM66977). • In 2015, Virginia Mines changed its name to Exploration Osisko Baie James Inc. and continued to advance the historical Trieste Property with minimal prospecting work (5 outcrop and 3 boulder samples) and a ninety-one (91) sample till survey. Additionally, 10 NQ diamond drillholes totalling 1,559 m were completed on the southern portion of historical Trieste Property. The drillholes were designed to test Au-As anomalies in till and corresponding IP anomalies and resulted in 231 samples sent for analysis (GM 69682). All 2015 drillholes fall within the

Criteria	JORC Code explanation	Commentary
		current Trieste Lithium Project boundary. • In 2017, Abitibi Geophysics on behalf of Osisko Mining Inc. (formerly Osisko Baie James), executed an 11.25 km OreVisionTM survey along 200 m spaced lines which resulted in several anomalies (GM70438). Osisko Mining followed up the geophysical survey with three (3) NQ diamond drillholes, totalling 636 m, to test out the identified anomalies (GM70437). A total of 226 drill core samples were sent for analysis. • In 2018 the Government of Quebec continued with regional mapping in the Lac Dalmas region (33H08, 33H09, 23E05 and 23E12) at scale of 1:85,000 (RG-2018-02). This area convers the northern portion of the Property. Another mapping project, covering the southern portion of the claims, was completed in the Lac Joubert area (33H08, 33H09, 23E05 and 23E12) at a scale of 1:130,000 (RG-2018-04).
Geology	• *Deposit type, geological setting and style of mineralisation.*	• The Trieste Project is situated in the Archean Superior Province of the Canadian Shield in the James Bay area of northern Quebec. The James Bay region consists of alternating east-west trending metavolcanic-rich and metasediment-rich domains. These domains comprise the La Grande volcano-plutonic subprovince and the Opatica, Nemiscau River, and Opinaca metasedimentary subprovinces (Card & Ciesielski, 1986). The Trieste claims are located within the La Grande Subprovince just north of the contact with the Opinaca Subprovince. • The La Grande Subprovince in the Project area is characterized by Archean domes and basins with the remains of volcanic sequences and sedimentary basins wrapping around large syntectonic to post-tectonic felsic to intermediate intrusions. Volcanic sequences consist of altered mafic-dominant rocks and silicate- and oxide-facies iron formation. The abundance of strongly altered volcanic rocks sets this region of the La Grande Subprovince apart from other sectors of the Subprovince (Burniaux, Guemache, & Goutier, 2018 - RG 2018-02; Hammouche & Burniaux, 2018 - RG 2018-04). • The Tilly Pegmatite is post tectonic and post-metamorphic and cuts the regional fabric in the area. This unit is characterized by small intrusions in the scale of hundreds of meters to kms in length and decametric thicknesses that form whiteish “whaleback” ridges. The unit consists of

<table>
<tr><th>Criteria</th><th>JORC Code explanation</th><th>Commentary</th></tr>
<tr><td></td><td></td><td>pegmatitic granite with medium-grained biotite, coarse to very coarse muscovite and accessory tourmaline, garnet, beryl, magnetite, and/or apatite. Titanite and epidote have also been observed locally. Micrographic and perthitic textures are common. It often contains mafic enclaves of deformed metasediments (Burniaux, Guemache, & Goutier, 2018 - RG 2018-02; Hammouche & Burniaux, 2018 - RG 2018-04).
• There have been several recorded occurrences of both I1A and I1G rock types available from online data sources from SIGEOM that likely relate to the Tilly Pegmatite unit and are potential hosts for spodumene. In total, 37 occurrences of rock-type I1A and 86 occurrences of I1G are reported in the Project area.
• The La Grande Subprovince is prospective for various commodities including gold, silver, base metals, platinum group elements, and lithium over several different deposit styles including orogenic gold (Au), volcanogenic massive sulfide (Cu, Au, Ag), komatiite-ultramafic (Au, Ag, PGE, Ni, Cu, Co), and lithium pegmatite (Li, Ta). The focus of the Company is on the potential for lithium pegmatite occurrences in the Project area (Burniaux, Guemache, & Goutier, 2018 - RG 2018-02; Hammouche & Burniaux, 2018 - RG 2018-04).</td></tr>
<tr><td>Drill hole Information</td><td>• 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:
○ easting and northing of the drill hole collar
○ elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar
○ dip and azimuth of the hole
○ down hole length and interception depth
○ 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.</td><td>• The drill hole information for the Osisko 2015 and 2017 drill programs is summarized in the table below:
<table>
<tr><th rowspan="2">Hole ID</th><th colspan="2">UTM NAD 83 – Zone 18</th><th rowspan="2">Azimuth</th><th rowspan="2">Dip (°)</th><th rowspan="2">Depth (m)</th></tr>
<tr><th>Easting (m)</th><th>Northing (m)</th></tr>
<tr><td>TR-15-001</td><td>685894</td><td>5900719</td><td>042</td><td>-50</td><td>120</td></tr>
<tr><td>TR-15-002</td><td>685808</td><td>5900364</td><td>088</td><td>-50</td><td>132</td></tr>
<tr><td>TR-15-003</td><td>685227</td><td>5901052</td><td>022</td><td>-50</td><td>120</td></tr>
<tr><td>TR-15-004</td><td>685717</td><td>5902592</td><td>131</td><td>-50</td><td>150</td></tr>
<tr><td>TR-15-005</td><td>688012</td><td>5898750</td><td>002</td><td>-50</td><td>201</td></tr>
<tr><td>TR-15-006</td><td>688379</td><td>5898594</td><td>180</td><td>-50</td><td>175</td></tr>
<tr><td>TR-15-007</td><td>689834</td><td>5898244</td><td>358</td><td>-50</td><td>180</td></tr>
<tr><td>TR-15-008</td><td>688809</td><td>5899320</td><td>320</td><td>-50</td><td>207</td></tr>
<tr><td>TR-15-009</td><td>689202</td><td>5899835</td><td>357</td><td>-50</td><td>158</td></tr>
</table></td></tr>
</table>

Criteria	JORC Code explanation	Commentary
		TR-15-010 686858 5897974 360 -50 135 OSK-TR-17-011 688343 5906127 145 -55 379 OSK-TR-17-012 688205 5906340 145 -51 389 OSK-TR-17-013 687972 5906353 145 -45 388
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 aggregation methods have been utilized.
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').*	• All thicknesses reported are apparent thickness
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.*	• Plan and photos are included in this announcement
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.*	• All exploration results to date are included
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.*	• In January 2023, Loyal Lithium purchased archived high resolution satellite imagery of priority target areas of the Trieste Project. The object was to utilize the imagery as a trial to correlate mapped pegmatites to the imagery. Loyal Lithium engaged Geospatial Intelligence Ltd. to conduct more complex derivations of the satellite imagery (multispectral) to help in refining targets for the inaugural exploration campaign (LLI News Release

Criteria	JORC Code explanation	Commentary
		dated January 10, 2023). Based on initial results the spectral imagery appears to correlate with mapped pegmatite dykes. All other known exploration data have been described in the relevant section of this JORC Table 1.
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.*	• Based on favourable geologic setting for lithium pegmatite occurrences, the Trieste Project is considered to have sufficient geological merit to warrant additional exploration. The Project measures approximately 38 km in the east-west direction and has never been subject to systematic exploration for lithium-bearing pegmatites. • Initial work (Phase I) focused on detailed data compilation to ensure that all historical work completed on the Property was digitized and incorporated into the current database. Airborne geophysical and LIDAR surveys will be flown to aid in target delineation across the Project area. An aggressive 16-day prospecting and mapping program has been initiated following target development from multiple sources. • With pegmatite outcrops identified with lithium-bearing minerals in this first phase of work, a drilling program is recommended for the second phase. The recommended drill program includes 5,000 to 10,000 m of coring and a focus on delineating lithium-bearing pegmatites at depth and along strike. A systematic drill hole approach should be adopted to understand the orientation and extent of the mineralized body(s). Active geological modelling is recommended over drill areas due to the nature of pegmatite emplacement, which may commonly form irregular bodies and/or develop sharp changes in orientation along trend.