

**ASX Announcement** | 18 January 2024

## **Major Lithium Discovery Confirmed from First Drillhole Assays at Trieste Lithium Project, James Bay, Quebec, Canada**

### **Highlights:**

- High grade lithium results from surface reported from Dyke #01 drill core assays, which remain open in all directions at the Trieste Lithium Project in James Bay, Quebec.
- A continuous intercept of 87.5m of 1.3% Li<sub>2</sub>O (DIS23-014) was drilled from near surface, sub-parallel to inferred contacts, to include an impressive 34.3m of 2.0% Li<sub>2</sub>O.
- Notable Dyke #01 near surface sub-perpendicular intercept assay results are:
  - 40.0m of 1.2% Li<sub>2</sub>O from 15.0m - DIS23-004
    - Incl. 5.8m at 3.0% Li<sub>2</sub>O
  - 28.8m at 1.1% Li<sub>2</sub>O from Surface - DIS23-006
    - Incl. 6.2m at 2.3% Li<sub>2</sub>O
  - 22.8m at 1.0% Li<sub>2</sub>O from 26.0m - DIS23-005
    - Incl. 8.0m at 2.0% Li<sub>2</sub>O
  - 20.3m at 1.0% Li<sub>2</sub>O from 19.7m - DIS23-001
    - Incl. 6.0m at 1.8% Li<sub>2</sub>O
- The prominence of spodumene mega crystals was captured within the Dyke #01 drill core assay results with several high grade intervals, including 1.0m at 4.3% Li<sub>2</sub>O.
- Dyke #01 drill core assay results follow the previously announced high grade channel and rock chip assay results of up to 7.60% Li<sub>2</sub>O gathered within the 20km<sup>2</sup> fertile metasediment host zone located between the Trieste Greenstone Belt and Tilly granitoid.
- Loyal Lithium is well capitalised with \$9.6m<sup>(1)</sup> in cash to advance its upcoming drilling program this Canadian winter.
- The Trieste Lithium Project is located along the prolific Trieste Greenstone Belt and sits just 10km east of Winsome Resources' (ASX:WR1) Adina-Jamar project with a JORC Inferred Mineral Resource Estimate of 59 Mt at 1.12% Li<sub>2</sub>O<sup>(2)</sup>.

Loyal Lithium Limited (ASX: LLI) (**Loyal Lithium, LLI**, or the **Company**) is pleased to announce high grade drill core assay results from Dyke #01 2023 drilling, at the Trieste Lithium Project, located in James Bay, Quebec, Canada. The drill core assay results exhibit high grade lithium from surface and follow the recently announced channel<sup>(3)</sup> and rock chip<sup>(4)</sup> sample assay results that targeted outcrops with spodumene mega crystals discovered during the maiden field program in August 2023<sup>(5)</sup>. The Company continues to move rapidly and is now preparing for its upcoming drilling program this Canadian winter, to further unlock this unique metasediment hosted spodumene project along the prolific Trieste Greenstone Belt.

**Loyal Lithium’s Managing Director, Mr. Adam Ritchie, commented:**

*“The results from Dyke #01 drilling highlights the exceptional prospectivity of the Trieste Lithium Project and gives us great confidence as we move forward with our winter drilling program which will test additional spodumene-bearing dykes.*

*“The ‘big picture’ at Trieste truly excites the team. The six identified spodumene-bearing dykes exhibit distinct east-west trends within a spodumene-rich metasediment host zone. This zone, densely vegetated, covers approximately 20 km<sup>2</sup>, and provides high potential for dyke extensions and the discovery of additional concealed dykes.”We are looking forward to continuing to exploring Trieste in 2024, starting with our upcoming drilling program, for which preparations are already well advanced.”*

**“Photo 1: Trieste Lithium Project – Multiple Spodumene MEGA Crystals (shaded pink) within drill core DIS23-004.**

Uniquely large spodumene mega crystals are found both on surface and within drill core at



the Trieste Lithium Project. The presence of spodumene mega crystals within a pegmatite dyke, suggests many positive geological and metallurgical attributes that practically may result in a simpler and more cost-effective mining and processing solution.

<b>TRIESTE LITHIUM PROJECT DYKE #01 DRILL ASSAY SUMMARY</b>				
Hole ID	Intersected (m)	Li <sub>2</sub> O %	From (m)	To (m)
DIS23-014*	87.5	1.3%	3.7	91.2
DIS23-004	40.0	1.2%	15.0	55.0
DIS23-006	28.8	1.1%	0.0	28.8
DIS23-005	22.8	1.0%	3.2	26.0
DIS23-001	20.3	1.0%	19.7	40.0
DIS23-011	18.5	1.1%	16.0	34.5
DIS23-002	18.1	1.2%	43.5	61.6
DIS23-009	16.5	1.1%	10.0	26.5
DIS23-010	16.0	1.2%	16.0	32.0
DIS23-008	14.8	1.2%	8.7	23.5

**Table 1: Dyke #01 notable drill assay results. \*Drillhole inferred to be sub-parallel to pegmatite dyke contacts.**



**HIGH GRADE LITHIUM INTERCEPT**

7.0m at 2.3% Li<sub>2</sub>O Interval shown

**Photo 2: Trieste Lithium Project – 7.0m at 2.3% Li<sub>2</sub>O within drill core DIS23-006.**

**Photo 3: Trieste Lithium Project – 15.0m at 1.2% Li<sub>2</sub>O within drill core DIS23-001.**



**HIGH GRADE LITHIUM INTERCEPT**

15.0m at 1.2% Li<sub>2</sub>O Interval shown

Drillhole DIS23-014 has demonstrated the potential importance of drilling direction with respect to lithium grade as large spodumene crystals may have a preferred orientation, normal to dyke contacts. The prominence of spodumene mega crystals at the Trieste Lithium Project therefore could lead to under reporting of lithium assay grades due to the drilling direction. The interpreted sub-parallel orientation (to Dyke#01 contacts) of DIS23-014 is believed to have provided a more accurate representation of lithium grade in that location. To support future geological and metallurgical assessments, further sub-parallel drillholes will be planned.



**HIGH GRADE LITHIUM INTERCEPT**

**34.3m at 2.0% Li<sub>2</sub>O Intercept shown**

**Photo 4: Trieste Lithium Project – 34.3m at 2.0% Li<sub>2</sub>O from 3.72m within drill core DIS23-014.**

The Loyal Lithium team continues to evaluate the aeromagnetic, high-resolution orthographic imagery, and LiDAR data, coupled with geologist field observations, and geochemical trends from the rock chip, channel sample, and drillhole assays. This will create a global geological understanding of the patterns and processes that have led to high concentrations of lithium mineralisation localised between the Trieste Greenstone Belt and the Tilly Granitoid and will assist in the discovery of extensions to the 6 known dyke surface and sub-surface expressions and new dykes on the Company's claims. We look forward to updating our Loyal investors soon.

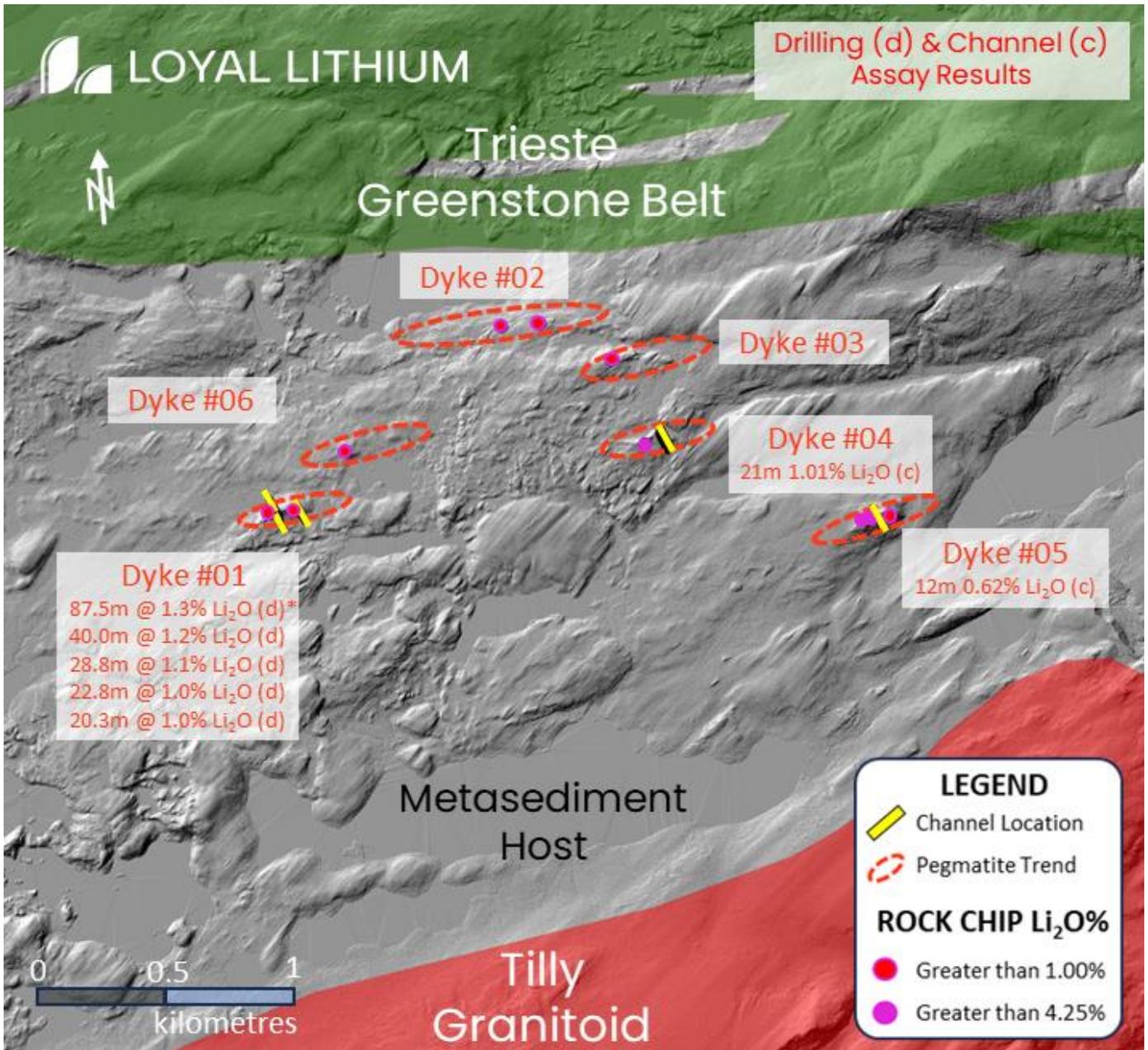


Figure 1: Trieste Lithium Project – Six spodumene bearing pegmatite dykes with drilling, channel, outcrop rock chip assay results represented on a digital elevation model from LiDAR survey. \*Drillhole inferred to be sub-parallel to pegmatite dyke contacts.

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. The Company continues to systematically explore its projects, resulting in a major new spodumene rich pegmatite dyke discovery at the Trieste Lithium Project. The Company aims to delineate JORC compliant resources, with mining and processing studies, creating outstanding 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.*

## Competent Person Statement

*The information in this announcement that relates to Exploration Results and Targets, 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 (CP) 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

<sup>1</sup> ASX Announcement LLI: 31 October 2023 Quarterly Activities Report – 30 September 2023

<sup>2</sup> ASX Announcement WRI: 11 December 2023: Globally significant maiden Mineral Resource of 59 Mt at 100% owned Adina Lithium Project.

<sup>3</sup> ASX Announcement LLI: 02 January 2024: High Grade Channel Assay Results at Trieste Lithium Project, James Bay, Quebec, Canada

<sup>4</sup> ASX Announcement LLI: 04 December 2023: New Discovery of 6<sup>th</sup> Spodumene Bearing Pegmatite Dyke at the Trieste Lithium Project, James Bay, Canada

<sup>5</sup> ASX Announcement LLI: 16 August 2023 Multiple Spodumene Bearing Pegmatite Dykes Discovered at the Trieste Lithium Project, James Bay, Canada

**APPENDIX 1: Dyke #01 – Notable Drillhole Lithium Intercepts  $\geq$  1.0% Li<sub>2</sub>O –**

Trieste Lithium Project Dyke #01 Drill Assay Notable Intersects (NAD83z18)								
Hole ID	Easting	Northing	Azimuth	Dip	From (m)	To (m)	Length (m)	Li <sub>2</sub> O %
DIS23-014	683158	5906096	99.5	-45	3.7	91.2	<b>87.5</b>	<b>1.3%</b>
	including				3.7	38.0	<b>34.3</b>	<b>2.0%</b>
DIS23-004	683186	5906060	335	-45	15.0	55.0	<b>40.0</b>	<b>1.2%</b>
	including				26.2	32.0	<b>5.8</b>	<b>3.0%</b>
DIS23-006	683217	5906078	335	-60	0.0	28.8	<b>28.8</b>	<b>1.1%</b>
	including				10.8	20.0	<b>9.2</b>	<b>2.0%</b>
DIS23-005	683217	5906078	335	-45	3.2	26.0	<b>22.8</b>	<b>1.0%</b>
	including				7.0	15.0	<b>8.0</b>	<b>2.0%</b>
DIS23-001	683130	5906070	335	-45	19.7	40.0	<b>20.3</b>	<b>1.0%</b>
	including				21.0	27.0	<b>6.0</b>	<b>1.8%</b>
DIS23-011	683264	5906075	45	-60	16.0	34.5	<b>18.5</b>	<b>1.1%</b>
	including				17.0	31.0	<b>14.0</b>	<b>1.4%</b>
DIS23-002	683130	5906070	335	-65	43.5	61.6	<b>18.1</b>	<b>1.2%</b>
	including				48.0	56.0	<b>8.0</b>	<b>1.9%</b>
DIS23-009	683264	5906075	7	-60	10.0	26.5	<b>16.5</b>	<b>1.1%</b>
	including				12.0	23.0	<b>11.0</b>	<b>1.6%</b>
DIS23-010	683264	5906075	45	-45	16.0	32.0	<b>16.0</b>	<b>1.2%</b>
	including				17.6	29.0	<b>11.4</b>	<b>1.5%</b>
DIS23-008	683264	5906075	7	-45	8.7	23.5	<b>14.8</b>	<b>1.2%</b>
	including				16.0	22.0	<b>6.0</b>	<b>1.7%</b>
DIS23-003	683139	5906052	340	-61	Intercept Assay Results			<1.0%
DIS23-007	683090	5906047	337	-44	Intercept Assay Results			<1.0%
DIS23-012	683226	5906043	335	-59	Intercept Assay Results			<1.0%

The Metasedimentary host exhibits a Specific Gravity (Sg) of less than 2.8 g/cm<sup>3</sup> which is like pegmatitic waste, comprising predominantly quartz and feldspars. Internal dilution including a maximum of 7.68m. A cut-off-grade of 0.20% was applied.

## 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	<ul style="list-style-type: none"> <li>• <i>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.</i></li> <li>• <i>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</i></li> <li>• <i>Aspects of the determination of mineralisation that are Material to the Public Report.</i></li> <li>• <i>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.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Unoriented drill core (NQ size) sample assays are reported in this announcement.</li> <li>• Geological core logging results include visual qualitative percentage mineral estimates produced using Dahrouge mineral percentage charts (includes spodumene %).</li> <li>• Core samples were selected by the logging geologist over standard 1m intervals and marked up on drill core by crayon with sample numbers selected from an SGS sample tag book in sequential order with prewritten sample numbers, Hole Id, interval (m) and sample number. The end of sample intervals, in host wall rock were sometimes taken less than one metre interval. Some 1m samples were taken in the host rock at distance from the pegmatite intervals.</li> <li>• Core boxes exteriors were marked with paint to indicate that samples were taken from that core box.</li> <li>• Core was half cut using a diamond blade semi-automated saw that was only used for this project. Core boxes were sealed with a lid after sampling with core stored on pallets in a covered shed at the Eastmain (Benz) Mine site.</li> <li>• Intervals of both pegmatite and wall rock were selected at varying intervals with Specific Gravities calculated and recorded using the water immersion method.</li> <li>• Samples were stored in a locked shipping container and placed in larger sample bags marked with sample numbers and bag sequence then transferred to a pallet and wrapped with plastic shipping then shipped by road transport to SGS Sudbury preparation and analysis for multielement analysis and sodium peroxide digest lithium analysis.</li> <li>• Certified Reference Materials were inserted once in every twenty samples across the sample stream as part of the QA-QC program.</li> </ul>

<p><i>Drilling techniques</i></p>	<ul style="list-style-type: none"> <li>• <i>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).</i></li> </ul>	<ul style="list-style-type: none"> <li>• Drilling Core Rig NQ size core 47.6mm diameter</li> <li>• Core was not oriented.</li> <li>• Drill holes down hole surveyed using an Axis Champ North seeking Gyro. Geologists marked locations and azimuths of drill holes with the azimuth checked by TN-14 Axis.</li> </ul>
<p><i>Drill sample recovery</i></p>	<ul style="list-style-type: none"> <li>• <i>Method of recording and assessing core and chip sample recoveries and results assessed.</i></li> <li>• <i>Measures taken to maximise sample recovery and ensure representative nature of the samples.</i></li> <li>• <i>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.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Core recoveries over each metre interval were recorded. The targeted pegmatite has very high core recoveries due to being fresh rock with no faults or weathered zones. Very minor (&lt;0.5%) core loss occurs where fine-grained muscovite and quartz occurred in pegmatites.</li> <li>• Loyal Lithium utilises maximum and minimum core sample intervals and does sample across lithological boundaries to ensure no sample bias occurs.</li> </ul>
<p><i>Logging</i></p>	<ul style="list-style-type: none"> <li>• <i>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.</i></li> <li>• <i>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</i></li> <li>• <i>The total length and percentage of the relevant intersections logged.</i></li> </ul>	<ul style="list-style-type: none"> <li>• MX Deposit was used to record drill hole collar, survey, and depth information, as well as geological and sampling data. These data were backed up instantly to a cloud source.</li> <li>• Core was photographed in boxes both wet and dry before sample cutting occurred.</li> </ul>
<p><i>Sub-sampling techniques and sample preparation</i></p>	<ul style="list-style-type: none"> <li>• <i>If core, whether cut or sawn and whether quarter, half or all core taken.</i></li> <li>• <i>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</i></li> <li>• <i>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</i></li> <li>• <i>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</i></li> <li>• <i>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.</i></li> <li>• <i>Whether sample sizes are appropriate to the grain size of the material being sampled.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Dry, crush, pulverise.</li> <li>• Core was sampled at 1m intervals in the pegmatite. Shorter intervals of samples occur at the geological contacts.</li> <li>• The core was cut in half with one half to be delivered to the laboratory and the other kept in the sealed core boxes for reference.</li> <li>• All samples collected were shipped by enclosed truck to SGS Ontario laboratory 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 homogenized and subsequently analysed for multi-elements using sodium peroxide fusion with ICP-AES/MS finish.</li> </ul>
<p><i>Quality of assay data and laboratory tests</i></p>	<ul style="list-style-type: none"> <li>• <i>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</i></li> <li>• <i>For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the</i></li> </ul>	<ul style="list-style-type: none"> <li>• 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.</li> <li>• CRMs were inserted roughly once in every twenty samples</li> </ul>

	<p><i>analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.</i></p> <ul style="list-style-type: none"> <li>• <i>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.</i></li> </ul>	<p>across the sample stream, as part of the internal quality control procedures.</p> <ul style="list-style-type: none"> <li>• Analytical procedures were considered Standard Industry Practice.</li> <li>• 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.</li> <li>• The Competent Person considers the sample and analytical procedures acceptable for exploration core drilling</li> </ul>
<i>Verification of sampling and assaying</i>	<ul style="list-style-type: none"> <li>• <i>The verification of significant intersections by either independent or alternative company personnel.</i></li> <li>• <i>The use of twinned holes.</i></li> <li>• <i>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</i></li> <li>• <i>Discuss any adjustment to assay data.</i></li> </ul>	<ul style="list-style-type: none"> <li>• No additional verification or testing is completed during this evaluation.</li> <li>• All original geological and assay data stored in an MX Deposit database in an as-received basis with no adjustment to geological data, with assay data not submitted nor received.</li> </ul>
<i>Location of data points</i>	<ul style="list-style-type: none"> <li>• <i>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.</i></li> <li>• <i>Specification of the grid system used.</i></li> <li>• <i>Quality and adequacy of topographic control.</i></li> </ul>	<ul style="list-style-type: none"> <li>• 2023 drill collars pegged and picked up using a Garmin GPS 66S.</li> <li>• Drill data is stored in UTM NAD 83 Zone 18N projection format.</li> </ul>
<i>Data spacing and distribution</i>	<ul style="list-style-type: none"> <li>• <i>Data spacing for reporting of Exploration Results.</i></li> <li>• <i>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.</i></li> <li>• <i>Whether sample compositing has been applied.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Drill hole spacing is around 50m metres along strike, with mostly single, but also multiple drill holes on some sections with new drill holes selected based on previous drilling results.</li> </ul>
<i>Orientation of data in relation to geological structure</i>	<ul style="list-style-type: none"> <li>• <i>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</i></li> <li>• <i>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.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Drill holes were drilled at a high angle (sub-perpendicular) to the interpreted pegmatite contact, with one drill hole to date testing sub-parallel to a portion of the inferred contact to determine the potential for sampling bias of potentially aligned large mega spodumene crystals.</li> </ul>
<i>Sample security</i>	<ul style="list-style-type: none"> <li>• <i>The measures taken to ensure sample security.</i></li> </ul>	<ul style="list-style-type: none"> <li>• The area is remote and only DGC contractors and Loyal Lithium field staff have access to the core at a base camp. Samples were transported from the drilling rig, after cataloguing, by helicopter daily back to the base camp and then transferred to a locked sea</li> </ul>

		<p>container, then transferred to a transport truck specifically for samples, dropped off directly to SGS laboratory. SGS provides a reconciliation sheet from the sample submission versus the samples received.</p> <ul style="list-style-type: none"> <li>• Samples were given a unique sample number on a weather resistant ticket that was provided by SGS for sample analysis. Each sample tag lists the project name and unique sample number.</li> <li>• Laboratory services were in secure compounds.</li> <li>• Once drill core is logged and sampled the core trays were covered with a lid and packed onto a pallet then stored in a mine site shed.</li> </ul>
<i>Audits or reviews</i>	<ul style="list-style-type: none"> <li>• <i>The results of any audits or reviews of sampling techniques and data.</i></li> </ul>	<ul style="list-style-type: none"> <li>• No audits or reviews of sampling techniques or data have been completed on this new 2023 drilling.</li> </ul>

## Section 2 Reporting of Exploration Results

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

Criteria	JORC Code explanation	Commentary
<i>Mineral tenement and land tenure status</i>	<ul style="list-style-type: none"> <li>• <i>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.</i></li> <li>• <i>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.</i></li> </ul>	<ul style="list-style-type: none"> <li>• The Trieste Lithium Project is 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.</li> <li>• 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. The Trieste Lithium Project was originally acquired by Loyal Lithium Ltd (previously Monger Gold) in October 2022 through both online map staking and agreements: <ul style="list-style-type: none"> <li>○ 228 claims have been obtained via a Binding Letter of Intent agreement with Osisko Development Corporation which is now within a co-ownership agreement of 75% Loyal Lithium (managers) and 25% Osisko.</li> <li>○ 12 claims were acquired from Noranda Royalties</li> <li>○ 226 claims were acquired through online map staking by Monger Gold in October 2022 (with 126 of these claims entered a NSR agreement with Jody Dahrouge and Loyal Lithium Ltd.)</li> </ul> </li> <li>• The claims are currently registered under two different company names: 228 claims under Osisko Baie-James SENC, and 238 under</li> </ul>

		<p>Trieste Lithium Ltd. (a 100% subsidiary of Loyal Lithium Ltd.).</p> <ul style="list-style-type: none"> <li>• All 466 claims that comprise the Project are in good standing as of the Effective Date of this report. A consultant Quebec claims manager is employed by Loyal Lithium to ensure regulatory compliance.</li> <li>• 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.</li> <li>• 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 April 2024, and October 19, 2025.</li> </ul>
<p><i>Exploration done by other parties</i></p>	<ul style="list-style-type: none"> <li>• <i>Acknowledgment and appraisal of exploration by other parties.</i></li> </ul>	<ul style="list-style-type: none"> <li>• 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 Caniapiscou Property. The Caniapiscou 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.</li> <li>• Virginia Mines Inc. increased their land holding in the area in 2007 and signed a joint venture agreement with Breakwater Resources on the Trieste Property, which encompassed the historical Caniapiscou 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).</li> <li>• 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).</li> </ul>

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 current Trieste Lithium Project boundary.
- In 2017, Abitibi Geophysics on behalf of Osisko Mining Inc. (formerly Osisko Baie James), executed an 11.25 km OreVision™ 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 covers 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 sub-province and the Opatica, Nemiscau River, and Opinaca metasedimentary sub-

provinces (Card & Ciesielski, 1986). The Trieste claims are located within the La Grande Sub-province just north of the contact with the Opinaca Sub-province.

- The La Grande Sub-province 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 Sub-province apart from other sectors of the Sub-province (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 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 Sub-province 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 sulphide (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).

- Drill Hole Details to date (Coordinates NAD83 UTM z18N):

Hole ID	Northing	Easting	Azimuth	Dip	Depth m
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*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:*

- 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.

DIS23-014	5906096	683158	104	-45	113.07	
DIS23-013	5906050	683264	45	-44	153.88	
DIS23-012	5906043	683226	335	-59	101.05	
DIS23-011	5906075	683264	41	-57	62.02	
DIS23-010	5906075	683264	48	-44	50.00	
DIS23-009	5906075	683264	10	-59	46.94	
DIS23-008	5906075	683264	7	-42	41.00	
DIS23-007	5906047	683090	337	-44	44.04	
DIS23-006	5906079	683216	335	-59	59.97	
DIS23-005	5906079	683216	335	-45	50.07	
DIS23-004	5906062	683184	335	-45	103.50	
DIS23-003	5906052	683139	340	-61	164.00	
DIS23-002	5906075	683128	335	-65	120.00	
DIS23-001	5906075	683128	335	-45	89.00	
					1198.54	

- A drill hole table is included below with detailed pegmatite intersections.

<b>TRIESTE LITHIUM PROJECT DETAILED PEGMATITE INTERSECTIONS</b>				
<b>Hole ID</b>	<b>From Depth (m)</b>	<b>To Depth (m)</b>	<b>Length (m)</b>	<b>Rock Name</b>
DIS23-001	3.00	3.91	0.91	Pegmatitic granite
DIS23-001	14.33	15.20	0.87	Pegmatitic granite
DIS23-001	19.70	20.28	0.58	Pegmatitic granite
DIS23-001	20.28	22.00	1.72	Spodumene pegmatite
DIS23-001	22.00	38.53	16.53	Spodumene pegmatite
DIS23-002	3.58	6.83	3.25	Pegmatitic granite
DIS23-002	7.67	8.75	1.08	Pegmatitic granite
DIS23-002	11.83	15.15	3.32	Spodumene pegmatite
DIS23-002	44.97	61.54	16.57	Spodumene pegmatite
DIS23-003	50.50	51.00	0.50	Muscovite pegmatite

DIS23-003	52.38	56.22	3.84	Muscovite pegmatite	
DIS23-003	95.71	96.88	1.17	Muscovite pegmatite	
DIS23-004	16.41	17.25	0.84	Spodumene-muscovite pegmatite	
DIS23-004	17.25	18.25	1.00	Muscovite pegmatite	
DIS23-004	18.25	20.87	2.62	Spodumene-muscovite pegmatite	
DIS23-004	26.20	35.08	8.88	Spodumene-muscovite pegmatite	
DIS23-004	39.43	54.05	14.62	Spodumene-muscovite pegmatite	
DIS23-005	4.75	27.66	22.91	Spodumene pegmatite	
DIS23-005	28.30	29.38	1.08	Pegmatitic granite	
DIS23-006	2.67	3.86	1.19	Spodumene-muscovite pegmatite	
DIS23-006	5.32	8.70	3.38	Spodumene-muscovite pegmatite	
DIS23-006	10.83	27.35	16.52	Spodumene-muscovite pegmatite	
DIS23-006	33.51	39.16	5.65	Muscovite pegmatite	
DIS23-007	17.90	21.44	3.54	Spodumene-muscovite pegmatite	
DIS23-008	10.17	22.00	11.83	Spodumene-muscovite pegmatite	
DIS23-009	10.03	11.10	1.07	Granite	
DIS23-009	11.10	25.86	14.76	Spodumene-muscovite pegmatite	
DIS23-010	9.39	10.43	1.04	Pegmatitic granite	
DIS23-010	17.57	30.83	13.26	Spodumene-muscovite pegmatite	
DIS23-011	10.42	14.16	3.74	Pegmatitic granite	
DIS23-011	15.43	33.14	17.71	Spodumene-muscovite pegmatite	
DIS23-011	36.68	44.50	7.82	Spodumene-muscovite pegmatite	
DIS23-011	45.23	46.40	1.17	Muscovite pegmatite	
DIS23-012	77.00	81.69	4.69	Muscovite pegmatite	
DIS23-013	114.67	133.04	18.37	Spodumene-muscovite pegmatite	
DIS23-013	139.55	142.16	2.61	Muscovite pegmatite	
DIS23-014	3.72	38.96	35.24	Spodumene-muscovite pegmatite	
DIS23-014	39.51	65.65	26.14	Spodumene-muscovite pegmatite	
DIS23-014	73.33	80.60	7.27	Spodumene-muscovite pegmatite	
DIS23-014	81.56	82.20	0.64	Muscovite pegmatite	
DIS23-014	84.19	89.67	5.48	Spodumene-muscovite pegmatite	
<b>TOTAL</b>			<b>305.41</b>		

<i>Data aggregation methods</i>	<ul style="list-style-type: none"> <li>• <i>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.</i></li> <li>• <i>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.</i></li> <li>• <i>The assumptions used for any reporting of metal equivalent values should be clearly stated.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Grade aggregation methods of drill intercepts were calculated by length weighted.</li> <li>• Geological intercept lengths of pegmatite are presented as down hole individual lengths and cumulative intercepts within each drill hole. These are apparent and not true widths until the geometry is fully understood by geological modelling and further drilling of the pegmatite dyke.</li> </ul>
<i>Relationship between mineralisation widths and intercept lengths</i>	<ul style="list-style-type: none"> <li>• <i>These relationships are particularly important in the reporting of Exploration Results.</i></li> <li>• <i>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</i></li> <li>• <i>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').</i></li> </ul>	<ul style="list-style-type: none"> <li>• All drill hole geological intercepts reported are apparent thicknesses. Drill holes DIS23-001 to DIS23-013 were drilled with azimuths interpreted to be sub-perpendicular to the pegmatite and paragneiss contacts. Dips of drill holes were between -45° and -65°. The interpreted dip of the pegmatite ranged between very steeply dipping both south and north. A plunge component towards the east may exist as the form is complex with multiple interpreted smaller dykes to the south of a main dyke. Drill hole DIS23-014 was drilled at around -45° towards azimuth 99.5. This drill hole was interpreted to be sub-parallel to at least a portion of the pegmatite and paragneiss to the dyke contacts and will likely test the variation in spodumene content and lithium grade caused by the abundance of spodumene mega crystals.</li> </ul>
<i>Diagrams</i>	<ul style="list-style-type: none"> <li>• <i>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.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Photos and geological intercepts are included in this announcement and drill hole characteristics are shown above in JORC Table 1.</li> </ul>
<i>Balanced reporting</i>	<ul style="list-style-type: none"> <li>• <i>Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced avoiding misleading reporting of Exploration Results.</i></li> </ul>	<ul style="list-style-type: none"> <li>• All exploration drilling results to date are presented in this announcement.</li> </ul>
<i>Other substantive exploration data</i>	<ul style="list-style-type: none"> <li>• <i>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</i></li> </ul>	<ul style="list-style-type: none"> <li>• In August 2023 a Loyal Lithium mapping and sampling program discovered a cluster of five spodumene bearing pegmatites on surface</li> <li>• In January 2023, Loyal Lithium purchased archived high resolution</li> </ul>

*treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.*

satellite imagery of priority target areas of the Trieste Project. The object was to utilise 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. Terra Resources then completed reprocessing of Sentinel 2 and Aster image data and found in the Lithium Band Combination large anomalies on and to the south of the amphibolite, subsequently found to be spodumene bearing pegmatites. The spectral imagery interpretations appeared to correlate with the general area of the later mapped pegmatite dykes.

*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 further, more intensive exploration. The Project measures approximately 38 km in the east-west direction and has never been subject to systematic exploration for lithium-bearing pegmatites until Loyal Lithium exploration programs.
- Initial work focused on detailed data compilation to ensure that all historical work completed on the Property was digitised and incorporated into a digital database. Airborne geophysical and LIDAR surveys, with high resolution orthophotos were flown across the Project area.
- An aggressive 14-day mapping and sampling program in August 2023 discovered a cluster of six spodumene bearing pegmatite outcrops, that were interpreted to form part of five distinct dykes.
- With pegmatite outcrops identified containing significant lithium-bearing minerals in outcrop (spodumene) in the first phase of work, a first drilling program targeted Dyke #01. A systematic drill hole approach was adopted when drilling following from the central portion of the dyke following the extent outwards along strike to understand the orientation and extent of the dyke. Active geological modelling is being completed to understand the spodumene distribution within the pegmatite. Due to the nature of pegmatite emplacement, which may commonly form irregular bodies and/or develop sharp changes in orientation along trend, further drilling on Dyke #01 is required along strike where it is open to the east and to the west, where no outcrop occurs. In the east, pegmatite drill hole intercepts are found beneath areas with no readily discernible surface outcrop. This finding suggests that there may be significant

spodumene bearing pegmatites subsurface that have no outcrop.