

## ASX Announcement - Corrected | 26 April 2024

# Trieste Lithium Project Takes Shape with More Thick High Grade Intercepts from Dyke #04 - James Bay, Quebec, Canada

### Highlights:

- Trieste Lithium Project is taking shape with Dyke #04 returning more thick near surface high grade drill assay results. The now completed winter drilling program has recorded many notable near-surface sub-perpendicular results including<sup>(1)</sup>:
  - o **32.8m of 1.2% Li₂O from 27.6m** − KS24-003 Dyke #04
    - including 8.3m at 2.4% Li<sub>2</sub>O
  - o **31.8m of 2.2% Li₂O from 2.9m** − TR24-010 Dyke #05
    - including 10.2m at 3.0% Li<sub>2</sub>O
  - **31.1m of 1.5% Li₂O from 21.4m** KS24-007A Dyke #04
    - including 5.0m at 3.1% Li<sub>2</sub>O
  - 28.6m of 1.7% Li₂O from 6.5m TR24-008 Dyke #05
    - including 5.9m at 2.7% Li<sub>2</sub>O
  - o 28.1m of 2.1% Li₂O from 1.9m TR24-002 Dyke #05
    - including 7.2m at 3.0% Li<sub>2</sub>O
- An innovative geophysical survey is planned for June to generate a detailed 3D model that will reveal Trieste's potential scale and generate surface and subsurface drilling targets, in addition to the three known spodumene dykes (2,3,6) yet to be drill tested.
- The Trieste Lithium Project is strategically located along the Trieste Greenstone Belt and connected to multiple spodumene bearing lithium projects, including Rio Tinto/Midland Exploration, Azimut/SEQUEM and 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 is well-funded with \$6.4m<sup>(3)</sup> in cash and plans to collaborate with neighbouring lithium projects, exemplified by the Winsome Resources collaboration MOU, to develop the Trieste Greenstone Belt into a premier lithium hub.

Loyal Lithium Limited (ASX:LLI) (Loyal Lithium, LLI, or the Company) is excited to announce the latest high-grade drilling assays from Dyke #04, marking significant progress at the Trieste Lithium Project. The winter drilling program has delivered promising shallow high-grade assay results, with three of the six known spodumene dykes at the project still yet to be tested. An upcoming airborne geophysical survey in June is poised to enhance the project's development by generating additional surface and subsurface drilling targets and reveal the project's potential scale. The geophysical program will take advantage of the characteristics of the metasediment host rocks. Strategically situated along the Trieste Greenstone Belt, Loyal Lithium is well-funded, with \$6.4m in cash, to support the development of the Trieste Greenstone Belt into a premier lithium hub.



### Loyal Lithium's Managing Director, Mr. Adam Ritchie, commented:

"The team, alongside Dahrouge Geological Consulting, have done an amazing job over the winter, relentlessly executing this low-cost focused drilling campaign at Trieste. The thick, shallow, and high-grade intercepts collected to date, including 31.8m at 2.2% Li<sub>2</sub>O from near surface, is starting to expose the true potential of what could lie below."

"The unique metasedimentary host rock affords us the opportunity to now deploy a cuttingedge geophysical survey that will be cross checked against the drilling results to produce detailed 3D structural model to identify and confirm our next drilling targets."

"With further exploration and early-stage development underway on the adjoining properties of Rio Tinto/Midland Exploration, Azimut/SEQUEM and Winsome Resources' the Trieste Greenstone Belt is really starting to take shape as a globally significant lithium hub."



Figure 1: Trieste Lithium Project – Notable Drill intercepts displayed across a 3D Trieste landscape.

The exceptional mineralisation compares favourably to Winsome Resources Adina–Jamar project with a JORC Inferred Mineral Resource Estimate of 59 Mt at 1.12%  $Li_2O$  demonstrating the immense potential of the Trieste Lithium Project. With the spodumene–rich Dykes of #04 & #05 boasting thick mineralised zones that remain open, the project stands out amongst other pre-resource lithium projects within the James Bay Region.

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Figure 2: Trieste Lithium Project - Dyke #04 Cross section on section line A-A'.

TRIESTE LITHIUM PROJECT DYKE #04 NOTABLE DRILL ASSAY SUMMARY								
Hole ID	Length (m)	Lithium Grade Li20%	Tantalum Grade Ta₂O₅%	From (m)	To (m)			
KS24-003	32.8	1.2	55	27.6	60.3			
KS24-007A	31.1	1.5	63	19.9	51.0			
KS24-006	21.8	1.4	123	20.0	41.8			
KS24-005	16.0	1.4	37	4.0	20.0			
KS24-010	11.4	1.1	45	22.9	34.3			

Table 1: Trieste Lithium Project - Dyke #04 notable drill assay results.





Image 1: Trieste Lithium Project – A 2.8m spodumene mega crystal being shown at the Dyke #04 outcrop.

Uniquely large spodumene mega crystals are found both on surface and within the Dyke #04 drill core at the Trieste Lithium Project. Within the Dyke #04 drillholes, drillhole KS24-005 stands out with a remarkable **peak sample value of 6.2% Li**<sub>2</sub>O (Image 2), demonstrating the significance of the spodumene mega crystals. The presence of mega crystals within a pegmatite dyke, suggests many positive geological and metallurgical attributes, that may result in a simpler and more cost-effective mining and processing solution. Core samples are currently being prepared for an in-house metallurgical study.



Image 2: Trieste Lithium Project - Dyke #04 drill core showing spodumene mega crystals in drillhole KS24-005.

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The exploration work completed to date at the Trieste Lithium Project holds immense promise for two highly prospective areas: the underexplored Trieste Greenstone Discovery Trend and the 20km<sup>2</sup> Metasediment Fault Flow Zone. Geological analysis and interpretation indicate a high potential for additional new discoveries within these zones. The data from Dykes #04 & #05 drilling, will be analysed in combination with the commissioned innovative geophysical survey planned for June, prior to further field-based programs and targeted drilling.



Image 3: Trieste Lithium Project - Dyke #04 drill core showing significant spodumene mineralisation.

In September 2023 Loyal Lithium and Winsome Resources signed a collaboration Memorandum of Understanding (MOU) on a range of objectives mutually applicable to the respective companies' and their James Bay Lithium projects. The MOU is a strategic move towards minimising environmental and stakeholder impacts, and working to achieve a low-cost-effective domestic lithium supply and positions the Trieste Greenstone region as a key

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player in the emerging North American Lithium supply chain. The strategic acquisition of the Renard processing facility and infrastructure by Winsome Resources further solidifies and accelerates the development pathway for the region.



Figure 3: Loyal Lithium's Trieste Project relative to other regional projects that have identified spodumene bearing pegmatites within the greater Trieste Greenstone Belt Lithium Complex.

With a robust cash position of \$6.4m<sup>(2)</sup>, and with the regional processing and infrastructure advancements by Winsome Resources, Loyal Lithium is well positioned to advance exploration works and unlock the full potential of the Trieste Lithium Project, further solidifying its position as a major contributor in Quebec's lithium supply chain.

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

## For more information:

### **Adam Ritchie**

Managing Director aritchie@loyallithium.com +61 (0) 403 462 383

### Jane Morgan

Investor & Media Relations jm@janemorganmanagement.com.au + 61 (0) 405 555 618

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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.

#### **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: 21 March 2024: World Class Lithium and Tantalum Grades recorded within Dyke #05 Drill Intercepts at Trieste Lithium Project, James Bay, Quebec, Canada

<sup>2</sup> ASX Announcement WR1: 11 December 2023: Globally significant maiden Mineral Resource of 59 Mt at 100% owned Adina Lithium Project.

<sup>3</sup>ASX Announcement LLI: 31 January 2024: Quarterly Activities Report – For the Quarter Ending 31 December 2023.

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## APPENDIX: Notable Lithium and Tantalum Intercepts Dyke #04 & Dyke #05 (Winter Drilling)

	Trieste Lithium Project Dyke #04 & #05 Notable Drill Assay Intercepts (NAD83218)										
Dyke ID	Hole ID	Easting	Northing	Elevation (m)	Dip	Azimuth	From (m)	To (m)	Length (m)	Lithium Grade Li₂O%	Tantalum Grade Ta2O5 ppm
Duko #04	K234 002	684510	5906380	579	-45	180	27.6	60.3	32.8	1.2	55
Буке #04	K324-005		Ir	ncluding			49.0	57.3	8.3	2.4	45
	TD24 010	685363	5906065	569	-90	0	2.9	34.7	31.8	2.2	499
Dyke #05	1724-010		Ir	ncluding			2.9	13.1	10.2	3.0	929
Duko #04	V524 007A	684440	5906367	571	-45	180	19.9	51.0	31.1	1.5	63
Dyke #04	KS24-007A		Ir	ncluding			22.0	27.0	5.0	3.1	162
	TR24-008	685297	5906046	569	-70	10	11.0	39.7	28.6	1.7	1,050
Dyke #05			Ir	ncluding			13.9	19.7	5.9	2.7	4432
Dyko #05	TR24-002	685363	5906065	569	-70	20	1.9	29.9	28.1	2.1	66
Буке ноз			lr	ncluding			5.1	12.3	7.2	3.0	71
Dyko #05	TR2/1_007	685297	5906046	569	-45	20	11.9	35.7	23.8	1.7	732
<b>Буке #05</b>	11124-007	Including					15.2	33.7	18.4	2.2	911
Dyko #05	TD2/ 001	685340	5906064	570	-70	20	7.0	29.6	22.6	1.4	70
Буке ноз	11124-001		Ir	ncluding	-		8.5	18.5	10.0	2.2	133
	K271-006	684477	5906368	575	-45	180	20.0	41.8	21.8	1.4	123
Dyke #04	K324-000		Ir	ncluding			29.5	35.9	6.3	2.6	124
Dyko #05	TR2/1_002	685363	5906065	569	-90	0	2.3	19.6	17.3	3.0	1,460
Буке ноз	11/24-003		Inc	complete			Hole en	ded in p	egmatite	redrilled as	TR24-010
	K\$24_005	684499	5906348	576	-45	350	4.0	20.0	16.0	1.4	37
Dyke #04	N324-003		Ir	ncluding			11.8	15.8	4.0	5.2	23
Dyke #05	TR24-011	685275	5906040	571	-45	0	34.2	49.7	15.4	1.4	60

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. Intercepts calculated using pegmatite rock type and/or a 0.20%  $Li_2O$  cut-off grade at margins, minimum 2m thickness and up to 6.1m of internal dilution.





Appendix Image 1: Trieste Lithium Project - Dyke #04 drillhole locations and cross sections.



Appendix Image 2: Trieste Lithium Project - Dyke #04 core photo of Spodumene crystals drillhole KS24-003.

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Appendix Image 3: Trieste Lithium Project - Dyke #05 drillhole locations and cross sections.



Appendix Image 4: Dyke #05 zoomed in photo of drill core from drillhole TR24-010.

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Appendix Image 5: Trieste Lithium Project - Dyke #04 core photo of Spodumene crystals drillhole KS24-003.



Appendix Image 6: Trieste Lithium Project - Zoomed in core photo of Spodumene crystals drillhole TR24-002.

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Trieste Lithium Project Dyke #04 Drill Assay Notable Intercepts (NAD83z18)											
			Elevation			From	То	Length	Grade	Grade	
Hole ID	Easting	Northing	(m)	Dip	Azimuth	(m)	(m)	(m)	Li₂O%	Ta <sub>2</sub> O <sub>5</sub> %	
K231-003	684510	5906380	579	-45	180	27.6	60.3	32.8	1.2	55	
1324-003		lr	ncluding			49.0	57.3	8.3	2.4	45	
V524 0074	684440	5906367	571	-45	180	19.9	51.0	31.1	1.5	63	
K324-007A		Ir	ncluding			22.0	27.0	5.0	3.1	162	
K524 006	684477	5906368	575	-45	180	20.0	41.8	21.8	1.4	123	
K324-000		Ir	ncluding			29.5	35.9	6.3	2.6	124	
	684499	5906348	576	-45	350	4.0	20.0	16.0	1.4	37	
K324-005		Ir	ncluding			11.8	15.8	4.0	5.2	23	
KS24-010	684480	5906332	575	-50	0	22.9	34.3	11.4	1.1	45	
KS24-013	684409	5906367	573	-45	180	38.0	42.8	5.3	1.0	29	
V524 007	684440	5906367	571	-45	180	19.5	24.5	5.0	1.5	211	
K324-007		Inc	complete			Hole ended in pegmatite redrilled as KS24-0007A					
KS24-011	684480	5906332	575	-90	0		No Sig	nificant R	esults (NSR	)	
KS24-012	684480	5906332	575	-55	10		No Sig	nificant R	esults (NSR	)	
KS24-014	684409	5906367	573	-55	180	No Significant Results (NSR)					
KS24-001	684554	5906383	576	-45	180	No Significant Results (NSR)					
KS24-002	684554	5906383	576	-60	180		No Sig	nificant R	esults (NSR	)	
KS24-004	684510	5906380	579	-60	180		No Sig	nificant R	esults (NSR	)	
KS24-008	684440	5906367	571	-60	180		No Sig	nificant R	esults (NSR	)	
KS24-009	684479	5906208	566	-55	0		No Sig	nificant R	esults (NSR	)	

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. Intercepts calculated using pegmatite rock type and/or a 0.20% Li<sub>2</sub>O cut-off grade at margins, minimum 2m thickness and up to 6.1m of internal dilution.

## 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
<i>Sampling</i> <i>techniques</i>	<ul> <li>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.</li> <li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li> <li>Aspects of the determination of mineralisation that are Material to the Public Report.</li> <li>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.</li> </ul>	<ul> <li>Core samples were selected by the managing and logging geologists over intervals and marked up on drill core by crayon with sample numbers selected from a water-resistant sample tag book in sequential order using prewritten sample numbers. Hole Id, interval (m) and sample number. Regular sampling was taken subsequently across pegmatite intervals and in the host rock at distance from the pegmatite intervals, to characterise the host rock geochemistry.</li> <li>Samples were given a unique sample number on a weather resistant ticket that was provided by AGAT for sample analysis. Each sample tag lists the project name and unique sample number.</li> <li>Core was half cut using a diamond blade saw that was only used for this project. Core boxes were sealed with a lid after sampling, with core stored on wrapped pallets at the Otish (639) camp site.</li> <li>Intervals for cutting and assaying of both pegmatite and wall rock were selected at varying intervals. Specific Gravities were calculated using the water immersion method.</li> <li>Samples were stored in a locked truck 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 to AGAT Laboratories Val d'Or preparation and analysis for multielement analysis and sodium peroxide digest lithium analysis.</li> </ul>
Drilling techniques	<ul> <li>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).</li> </ul>	<ul> <li>Drill Core was BTW size core, 41.3mm diameter.</li> <li>Core is non-oriented.</li> <li>Drill holes were downhole surveyed using a GYRO. Geologists marked locations and azimuths of drill holes with the azimuth checked by tablet software.</li> </ul>
Drill sample recovery	<ul> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> <li>Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> <li>Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to</li> </ul>	<ul> <li>Core recoveries over each metre interval were recorded. Loyal Lithium utilises maximum and minimum core sample intervals to ensure no sample bias occurs.</li> </ul>

	preferential loss/gain of fine/coarse material.	
Logging	<ul> <li>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.</li> <li>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</li> <li>The total length and percentage of the relevant intersections logged.</li> </ul>	<ul> <li>MX Deposit was used to record geological and sampling data. These data were backed up instantly to a secure cloud storage site owned by the Geological Contractor.</li> <li>Logging was both qualitative and quantitative with percentage estimates of spodumene and other minerals that were then confirmed by a multielement suite assay of each sample.</li> <li>Core was photographed in boxes, both wet and dry, before sample cutting occurred.</li> </ul>
<i>Sub- sampling techniques and sample preparation</i>	<ul> <li>If core, whether cut or sawn and whether quarter, half or all core taken.</li> <li>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</li> <li>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> <li>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</li> <li>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.</li> <li>Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>	<ul> <li>Core was sampled at approximate 1m intervals in the pegmatite but was defined by geological contacts selected by the logging geologists.</li> <li>The core was half cut, with one half delivered to the laboratory.</li> <li>All samples collected were transported by the Geological Contractor to AGAT Laboratories - Val d Or where standard sample preparation was completed including drying, crushing to 75% passing 2 mm, riffle split 250g, and pulverized 85% passing 75 microns. Dried. Subsamples were then delivered to AGAT Ontario laboratory after homogenisation and analysed for 57 elements using sodium peroxide fusion with ICP-OES/ICP-MS Finish.</li> </ul>
<i>Quality of assay data and laboratory tests</i>	<ul> <li>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</li> <li>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.</li> <li>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.</li> </ul>	<ul> <li>Samples collected by Loyal Lithium were analysed using 50g dissolution in sodium peroxide (total Lithium digestion) coupled with ICP-OES/ICP-MS Finish (57 elements), AGAT internal code 201378, which is appropriate for lithium.</li> <li>Certified Reference Materials (OREAS standards and quartz blanks) were inserted once in every twenty samples across the sample stream as part of the QA-QC program. Regular quarter drill core duplicates were also taken.</li> <li>AGAT 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>Analytical procedures are considered Standard Industry Practice.</li> </ul>
<i>Verification of sampling and assaying</i>	<ul> <li>The verification of significant intersections by either independent or alternative company personnel.</li> <li>The use of twinned holes.</li> <li>Documentation of primary data, data entry procedures, data</li> </ul>	<ul> <li>The drill program was managed by Dahrouge Geological Consulting Quebec QP - Order of Geologists of Quebec and examined by a JORC Competent Person on site for the entire drilling program.</li> <li>All original geological and assay data was entered electronically</li> </ul>

	<ul> <li>verification, data storage (physical and electronic) protocols.</li> <li>Discuss any adjustment to assay data.</li> </ul>	<ul> <li>and stored in an MX Deposit database in an as-received basis from the geological contractor, with no adjustment to geological data.</li> <li>The Contractor Drill and Geological Database was examined by Loyal Geologists and reconciled from data collected independently by on-site Loyal CP. An Assessment Report was completed by the Geological Contractor.</li> </ul>
<i>Location of data points</i>	<ul> <li>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.</li> <li>Specification of the grid system used.</li> <li>Quality and adequacy of topographic control.</li> </ul>	<ul> <li>Drill collars were pegged and picked up after drilling using a Garmin GPS 66S. Drill collar and pad locations were photographed before and after drilling.</li> <li>Drill collar data is stored in UTM NAD 83 Zone 18N projection format.</li> </ul>
<i>Data spacing and distribution</i>	<ul> <li>Data spacing for reporting of Exploration Results.</li> <li>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.</li> <li>Whether sample compositing has been applied.</li> </ul>	<ul> <li>Drill hole spacing was dependant on safe drill pad locations with single and multiple drill holes completed at different dips and azimuths on some drill pads, with new subsequent drill holes selected based on previous visual drilling results.</li> </ul>
<i>Orientation of data in relation to geological structure</i>	<ul> <li>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</li> <li>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.</li> </ul>	• Drill holes were drilled at a high angle (sub-perpendicular) to the interpreted pegmatite contact observed in surface outcrop. Dykes are irregular in form but generally dip sub vertically to steeply to the south. There is an inferred plunge towards the west that has not been confirmed to a high level of certainty.
<i>Sample security</i>	• <i>The measures taken to ensure sample security.</i>	<ul> <li>The area is remote and only DGC contractors and Loyal Lithium field staff have access to the core on site and at a secure 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 container, then transferred to a transport truck specifically for samples, dropped off directly to AGAT laboratory by Geological Contractors and/or Loyal staff. AGAT provided a reconciliation sheet from the sample submission versus the samples received.</li> <li>Samples at AGAT laboratory are in secure compounds.</li> <li>Core boxes exteriors were marked with paint to indicate that samples were taken from that core box. Metal tags with hole number, box number and depth from, depth to, were affixed to each core box, with core bx lids. Core boxes were stacked on pallets, secured with metal strapping, and wrapped in plastic and stored</li> </ul>

				within two different private mine site camps, with one being in an undercover weatherproof shed.
Audits or reviews	•	The results of any audits or reviews of sampling techniques and data.	•	No external audits or reviews of sampling techniques or data have been completed on the 2023/2024 drilling.

## Section 2 Reporting of Exploration Results

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

Criteria	JORC Code explanation	Commentary
<i>Mineral</i> <i>tenement and</i> <i>land tenure</i> <i>status</i>	<ul> <li>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.</li> <li>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.</li> </ul>	<ul> <li>Prospectus on 5<sup>th</sup> June 2023 describes all LLI mineral tenure: https://announcements.asx.com.au/asxpdf/20230605/pdf/05qc58xt74d9nm.pd f.</li> <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 with Trieste 238 claims for 12,269ha (LLI 100%) and the Osisko/Trieste JV - 228 claims (LLI 75%, Osisko 25%) - 11,765ha totalling 24,034 ha and is divided into three (3) continuous claim blocks extending over 38 km east-west direction width and 15.7km north-south. 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> <li>228 claims in the west from the mid north to the south, 75% owned by Loyal Lithium (fully owned subsidiary Trieste Lithium Ltd) and 25% with Osisko Development Corporation.</li> <li>12 claims were acquired through online map staking and an NSR agreement for 12 claims in October 2022.</li> </ul> </li> <li>The claims are currently registered under Trieste Lithium Ltd, a 100% subsidiary of Loyal Lithium Ltd.</li> <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> </ul>
<i>Exploration done by other parties</i>	<ul> <li>Acknowledgment and appraisal of exploration by other parties.</li> </ul>	<ul> <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 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.</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 Caniapiscau Property and makes up the</li> </ul>

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 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.	<ul> <li>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 &amp; Ciesielski, 1986). The Trieste claims are located within 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, &amp; Goutier, 2018 - RG 2018-02; Hammouche &amp; Burniaux, 2018 - RG 2018-04).</li> <li>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, &amp; Goutier, 2018 - RG 2018-02; Hammouche &amp; Burniaux, 2018 - RG 2018-04).</li> <li>There have been several recorded occurrences of both 11A and 11G 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 11A and 86 occurrences of 11G are reported</li></ul>
Drill hole • Information	<i>A summary of all information material to the understanding of the exploration results including a tabulation of the following</i>	Drill Hole Details to date (Coordinates NAD83 UTM z18N):

	information for all Material drill holes:	Hole ID	Easting	Northing	Elevation (m)	Dip	Azimuth	Depth (m)
	• easting and northing of the drill hole	KS24-001	684,554	5,906,383	576.00	-45	180	120.31
	collar	KS24-002	684,554	5,906,383	576.00	-60	180	135.00
	<ul> <li>elevation or RL (Reduced Level –</li> </ul>	KS24-003	684,510	5,906,380	578.68	-45	180	102.00
	elevation above sea level in metres) of	KS24-004	684,510	5,906,380	578.68	-60	180	135.00
	the drill hole collar	KS24-005	684,499	5,906,348	575.82	-45	350	100.00
	<ul> <li>dip and azimuth of the hole</li> </ul>	KS24-006	684,477	5,906,368	575.34	-45	180	102.10
	<ul> <li>down hole length and interception</li> </ul>	KS24-007	684,440	5,906,367	571.49	-45	180	24.50
	depth	KS24-007A	684,440	5,906,367	571.49	-45	180	78.00
	<ul> <li>hole length.</li> </ul>	KS24-008	684,440	5,906,367	571.49	-60	180	108.00
	<ul> <li>If the exclusion of this information is justified on</li> </ul>	KS24-009	684,479	5,906,208	565.83	-55	0	213.00
	the basis that the information is not Material	KS24-010	684,480	5,906,332	575.38	-50	0	54.00
	and this exclusion does not detract from the	KS24-011	684,480	5,906,332	575.38	-90	0	84.00
	understanding of the report, the Competent	KS24-012	684,480	5,906,332	575.38	-55	10	72.00
	Person should clearly explain why this is the	KS24-013	684,409	5,906,367	572.74	-45	180	70.00
	Case.	KS24-014	684,409	5,906,367	572.74	-55	180	62.90
methods	<ul> <li>minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.</li> <li>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.</li> <li>The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> </ul>	individual lengths and cumulative intercepts within each drill hole, with h grades within an intercept having the potential to skew the grade distribu stated. The widths are apparent and due to the relatively low number of du holes the not true widths are not fully understood until the geometry of th pegmatites are geological modelling and further drilling of the pegmatite completed. To date the dykes all appear to be irregular shaped.						
Relationship between mineralisation widths and	<ul> <li>These relationships are particularly important in the reporting of Exploration Results.</li> <li>If the geometry of the mineralisation with</li> </ul>	• Drill holes pegmatite o	were drille contact obs	d at a high a erved in out	ngle (sub-per crop.	pend	licular) to	the interpr

	to this effect (eg 'down hole length, true width not known').	
Diagrams	<ul> <li>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.</li> </ul>	<ul> <li>Drill assay intercepts tables with plans and sections are included in this announcement and drill hole locations dips, azimuths and depths are provided in an announcement table.</li> </ul>
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 avoiding misleading reporting of Exploration Results.	<ul> <li>All exploration drilling results from Dykes #04 and #05 are presented in this announcement with results from Dyke #05 from the previous announcement presented to enable a comparison over a relatively small area where a cluster of six spodumene bearing dykes was discovered by Loyal Lithium's geological contractors managing the program (Dahrouge Geological Contractors – Montreal). Drill intercepts with no significant results (NSR) are listed.</li> </ul>
<i>Other substantive exploration data</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 treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.	<ul> <li>In August 2023 an intensive Loyal Lithium mapping and sampling program discovered a cluster of five spodumene bearing pegmatites on surface. Assay results, outcrop photos and LiDAR survey confirmed the presence of a 6<sup>th</sup> dyke.</li> <li>In January 2023, Loyal Lithium purchased archived high resolution 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 mapped pegmatite dykes.</li> <li>In January/February 2023</li> </ul>
Further work	<ul> <li>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).</li> <li>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</li> </ul>	<ul> <li>Based on favourable geologic setting in metasedimentary host rocks, the cluster of relatively closed spaced lithium pegmatite occurrences, the Trieste Lithium Project is considered to have sufficient geological merit to warrant intensive exploration, both more surface mapping /sampling, geophysical surveys, and drilling. 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's exploration programs.</li> <li>Initial work focused on detailed data compilation to ensure that all historical work completed on the Property was digitised and incorporated into the current database. Airborne geophysical aeromagnetic and LIDAR surveys, with high resolution orthophotos were flown in late 2023 to aid in target delineation across</li> </ul>

the Project.

In 2023, with pegmatite outcrops identified in mapping and sampling, containing significant lithium-bearing spodumene and tantalum oxide minerals in outcrop, a maiden drilling program targeted Dyke #01 and then targeted Dykes #04 and #05. Active geological modelling is being completed that will be supplemented by MobileMTm and aeromagnetic survey results in early summer. Due to the nature of pegmatite emplacement, and rheology of the metasedimentary host rocks, dykes commonly form irregular bodies. Further drilling on Dykes #01, #04 and #05 is required along strike to the east and to the west, where no visible outcrop occurs. Drill holes KS24-001 and KS24-002, as seen in the announcement plan, the eastern most drilling contains highly altered (hydrothermal?) pegmatite (KS24-0016.4m from 9.9m and 14.4m pegmatite from 36.8m; KS24-002 4.2m from 47m), with a continuation of the pegmatite east potentially being less altered, spodumene mineralisation may return in the pegmatite.