

# Geochemistry Identifies Multiple Drill Targets at Mt Isa

# Highlights

- More than 6,200 samples collected as part of the soil sampling geochemical program at Mt Isa
- Exploration potential growing with numerous targets identified by infill geochemical sampling
- New key targets identified include Ballara Saddle, Portal Creek, IXL and Psamathe
- Ballara Saddle geochemical anomaly follows up significant historical rock chip assays
- Geochemical program has been completed for this field season
- Geophysical IP program underway

**Larvotto Resources Limited** (ASX: LRV, Germany: K6X, 'Larvotto' or 'the Company') has identified multiple new drill targets at the Company's 100%-owned Mt Isa Copper, Gold and Cobalt Project (Mt Isa Project) in Queensland, following the completion of its 2023 geochemical soil sampling program.

#### Managing Director, Ron Heeks commented,

"The results from the soil sampling geochemical program provide multiple key targets for Larvotto's next exploration phase in 2024. Geochemical anomalies in this region are usually coherent and extensive and will provide an excellent focus for future work programs.

Larvotto has undertaken this field work with plans to build on the field validation to confirm the presence of copper, gold and cobalt mineralisation within the project areas. Due to this systematic work, Ballara Saddle and IXL have been identified as early priority targets for drilling.

We also look forward to completing the IP survey at Ballara Saddle, Bass and Yamamilla, which will provide further valuable information and will update shareholders with the results as they become available."

## **Geochemical Sampling Program**

The geochemical program targeting both Iron Sulphide Copper Gold (ISCG) and Iron Oxide Copper Gold (IOCG) mineralisation across the Mt Isa Project has collected more than 6,200 samples. Following the extensive 2022-2023 wet season, the large-scale geochemical sampling program involved:

- Continued regional soil sampling (-2mm size fraction) over previously unexplored areas
- Infill sampling of collated and interpreted trends from historical soil sampling and rock chipping, where anomalous results were returned
- Extended sampling on historical prospects where evidence of mineralisation was observed.
- Infill sampling of the previous year's (2022) program
- Regional sampling of geological targets related to geophysical targeting including magnetics and electromagnetics programs

The Mt Isa Project tenure includes more than 14 prospects which are undergoing detailed investigation (Figure 1). Copper occurrences and historical diggings across the project tenure, however, are estimated to be in the hundreds.



Figure 1 Mt Isa Copper, Gold, Cobalt Project Location Plan

Of the identified prospects, the Yamamilla and IXL trends have recently been tested by Reverse Circulation (RC) drilling, with significant copper mineralisation intersected at IXL including 20m @ 1.03% Cu from surface<sup>1</sup>. This new copper discovery along a mineralised northwest trend is a priority target when the drilling program resumes in 2024. Soil samples have been collected with a 300g sample (-2mm fraction) from the B horizon. Samples were then analysed in-house for a suite of base metals and pathfinder elements, including copper, with a SciApps X505 or X200 portable X-Ray spectrometer (pXRF).



<sup>&</sup>lt;sup>1</sup> See ASX: LRV Announcement 5 December 2023, New Copper Discovery at Mt Isa



Figure 2 Larvotto Soil Sampling Program

#### **Ballara Saddle Prospect**

The mapping of magnetite-biotite-quartz alteration in the Ballara Saddle prospect area suggests an IOCG style of mineralisation. A geophysical Induced Polarisation (IP) survey has been designed to test the ability of this method to detect this style of mineralisation and is being currently conducted on this area.

Historical exploration by Cyprus Gold Australia Corporation identified malachite gossan and noted channel/rock chip sampling of 15m of continuous samples returning 6.6% Cu and 0.64 g/t Au<sup>2</sup>. Also identified was a wide magnetite-biotite-quartz alteration extending to over 1,000m with malachite-stained scree observed over this area (Figure 3 and Figure 4).



<sup>&</sup>lt;sup>2</sup> See ASX: LRV Prospectus 2021



Figure 3 Ballara Saddle Prospect with malachite observed in outcrop



Figure 4 Ballara Saddle Prospect looking North

Previous Larvotto rock chip sampling conducted to follow up existing results included MIRS0038<sup>3</sup> that returned 42.9% Cu in the southern part of Ballara Saddle.

Infill and close spaced soil sampling/pXRF analysis at Ballara Saddle, with associated geological mapping, has confirmed the alteration halo. This close spaced but limited soil sampling program included several excellent soil results up to 2,004ppm Cu (Figure 5).

Additional soil sampling and reconnaissance in this location will further develop the understanding of the anomalous trends. Further work is required, as is the completion and interpretation of the geophysical IP survey currently being conducted. Larvotto has determined this is a priority drill target for the next phase of drilling.



<sup>&</sup>lt;sup>3</sup> See ASX: LRV Announcement 9 June 2023, Amended Announcement Rock Chips deliver up to 43% Copper at Larvotto's Mt Isa Project



Figure 5 Ballara Saddle Geochemical Soil sampling on airborne magnetics

#### **Portal Creek**

Previous exploration activity in the Portal Creek area confirmed that copper mineralisation is related to gossanous quartz veins and vein breccias located on the contact between the Ballara Quartzite and the Corella Formation, along the Prospector Fault (Figure 6).<sup>4</sup>

The Prospector Fault comprises a north to northwest trending corridor with numerous splays trending southeast off this trend. In addition, there are west-south-west cross structures that displace the fault corridor. Larvotto infill soil sampling in the area has generated values >250ppm Cu. This two kilometre north-northwest trend highlights the excellent potential of the Prospector corridor at Portal Creek.

In addition to the Portal Creek infill sampling, an extensive regional sampling program was undertaken to the south along the Prospector trend, as defined by airborne magnetics, to investigate the copper potential.



<sup>&</sup>lt;sup>4</sup> See ASX: LRV Prospectus 2021



Figure 6 Portal Creek geochemical soil sampling on airborne magnetics

#### **Psamathe Prospect**

The Psamathe Prospect is interpreted to be on a large northerly structural trend that intersects with northnorthwest trending beds. This northerly trend links to the Blockade copper mine mineralisation when extending the trend to the north.

Initial and follow-up soil sampling, as well as the previously reported rock chip samples<sup>5</sup>, have highlighted the potential of this trend with copper mineralisation noted at the old Psamathe workings. Initial geochemical soil sampling highlighted values up to 315ppm Cu at the prospect area with follow-up sampling several anomalous zones with values up to 467ppm Cu extending north to the Blockade Prospect over four kilometres away.



<sup>&</sup>lt;sup>5</sup> See ASX: LRV Announcement 9 June 2023, Amended Announcement Rock Chips deliver up to 43% Copper at Larvotto's Mt Isa Project



Figure 7 Old Psamathe workings

The Psamathe anomaly extends for over two kilometre strike at greater than 300ppm Cu and indicates that there is further work required. A cobalt anomaly over the same trend was also evident and extends for over 1,600m. Several anomalous values over 500ppm Cu were returned with numerous supporting values presenting a large coherent anomaly.



Figure 8 Psamathe copper soil geochemical anomaly





Figure 9 Psamathe cobalt soil geochemical anomaly

#### Blue Star/IXL

The Bluestar/Blockade area is characterised by numerous small historical workings, similar in mineralisation style to the nearby Blockade Mine and where copper mineralisation is generally associated with northwest trending faulted dolerite/volcanic contacts.

An extensive infill soil sampling program was completed to better define targets in this area, in association with the previously reported high grade rock chip samples<sup>6</sup>. Peak soil samples recording 2,230ppm Cu were recorded. Additional records of values up to 1,015ppm Cu and numerous >100ppm Cu results define the anomaly.

Larvotto's work has confirmed the presence of copper mineralisation at Bluestar. This mineralised area (Figure 10) will be the focus of intensive data review, detailed mapping and interpretation for future work with a view for further drilling.

The IXL Prospect was the success of the soil program as it was lying on a sub-parallel structure to that of Bluestar. Along strike from historical workings known as Whitehorse, this target was drill tested in September 2023<sup>7</sup> after a portion of the geochemical soil program was completed.



<sup>&</sup>lt;sup>6</sup> See ASX: LRV Announcement 9 June 2023, Amended Announcement Rock Chips deliver up to 43% Copper at Larvotto's Mt Isa Project

<sup>&</sup>lt;sup>7</sup> See ASX: LRV Announcement 5 December 2023, New Copper Discovery at Mt Isa



Figure 10 Bluestar/IXL copper soil geochemical anomaly

# Geophysical Induced Polarisation (IP) Work

Larvotto commenced an IP program several months ago, however due to equipment failure, its completion was delayed. The IP crew have recently returned to site and have completed this program. Results are pending.

The initial program consisted of six IP lines conducted over three separate target areas; Bass, Yamamilla and Ballara Saddle (Figure 11). This IP program has now been modified due to the topography and its extreme hilly nature. Alterations to the initial program have now seen a single IP line over the three targets to test the method for future detailed surveys.

Larvotto intends to release further results from this program when results are received in the near future.





Figure 11 Geophysics team at Ballara Saddle

## Future Work Planned

- Continuation of soil sampling program with a focus on following up 2023 newly identified targets
- Further data compilation and in-depth interpretation of results returned including the current IP survey
- Drilling geochemical anomalies at Ballara Saddle and IXL follow-up drilling
- Cultural Heritage clearance survey.

# **Competent Persons Statement**

The information in this presentation that relates to exploration results is based on information compiled by Mr Paul Frawley, who is a Member of the Australian Institute of Geoscientists and who is Exploration Manager of Larvotto Resources Limited.

Mr Frawley has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration, and to the activity which he is undertaking, to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'.

Mr Frawley consents to the inclusion in the release of the matters based on his information in the form and context in which it appears.

The Company is not aware of any new information or data that materially affects the information included in this presentation. All material assumptions and technical parameters underpinning the estimates in the Announcements referred to continue to apply and have not materially changed.



## About Larvotto Resources Ltd

Larvotto Resources Limited (ASX:LRV) is actively advancing its portfolio of in-demand minerals projects including the 1.4Moz AuEq high-grade Hillgrove Gold-Antimony Project in NSW, the large Mt Isa copper, gold, and cobalt project adjacent to Mt Isa townsite in Queensland, the Eyre multi-metals and lithium project located 30km east of Norseman in Western Australia and an exciting gold exploration project at Ohakuri in New Zealand's North Island. Larvotto's board has a mix of experienced explorers and corporate financiers to progress its projects. Visit www.larvottoresources.com for further information.

This announcement was authorised for release by the Board of Larvotto Resources Limited.

## **Reporting Confirmation**

The information in this report that relates to exploration results is extracted from the Company's ASX announcements:

- 2021 Prospectus
- 9 June 2023, Amended Announcement Rock Chips deliver up to 43% Copper at Larvotto's Mt Isa Project
- 5 December 2023, New Copper Discovery at Mt Isa

The Company confirms that it is not aware of any new information or data that materially affects the information included within the original market announcements.

# JORC Reporting of Historic Exploration Results

Full location data on the historical drill holes as well as details of any previous exploration activities and results, and JORC Tables 1 and 2 (Sampling Techniques and Data and Reporting of Exploration Results) according to the JORC Code 2012 Edition were included at Annexure A of the Company's Prospectus dated 18 October 2021. The Company confirms that it is not aware of any new information or data that materially affects the information included within the Prospectus dated 18 October 2021.

## Forward Looking Statements

Any forward-looking information contained in this news release is made as of the date of this news release. Except as required under applicable securities legislation, Larvotto does not intend, and does not assume any obligation, to update this forward-looking information. Any forward-looking information contained in this news release is based on numerous assumptions and is subject to all of the risks and uncertainties inherent in the Company's business, including risks inherent in resource exploration and development. As a result, actual results may vary materially from those described in the forward-looking information. Readers are cautioned not to place undue reliance on forward looking information due to the inherent uncertainty thereof.

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LARVOTTO RESOURCES LIMITED	DIRECTORS	PROJECTS	CONTACT
ABN 16 645 596 238 ASX:LRV   TGAT:K6X	Mr Mark Tomlinson Non-Executive Chair	<b>Mt Isa Au, Cu, Co</b> Mt Isa, QLD	For further information, please contact:
Unit 6 / 105 Broadway,	Mr Ron Heeks		Mr Ron Heeks
Nedlands, WA 6009	Managing Director	Ohakuri Au	Managing Director
PO Box 496, Claremont, WA 6910		New Zealand	+61 (8) 6373 0112
+61 (8) 6373 0112	Ms Anna Nanajski-Staples		info@larvottoresources.com
info@larvottoresources.com	Non-Executive Director	Eyre Ni, Au, PGE, Li	
www.larvottoresources.com	Mr Nicholas Longmire	Norseman, WA	Victoria Humphries / Ben Creagh
	Company Secretary		Media and investor enquiries
		FOLLOW US	victoria@nwrcommunications.com.au
		y in	benc@nwrcommunications.com.au

# JORC Code, 2012 Edition – Table 1

Section 1 Sampling Techniques and Data

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

#### Section 2 Reporting of Exploration Results

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

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul> <li>Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry stand 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 sam representivity and the appropriate calibration of any measurement tools or systems used.</li> <li>Aspects of the determination of mineralisation that a Material to the Public Report.</li> </ul>	<ul> <li>Soil sampling was undertaken as reported in the body of the report. Many of the soil samples collected were taken from the B horizon using handheld tools.</li> <li>The samples were sieved to -2mm and placed in kraft paper sample bags. Approximately 300g of material was collected per sample.</li> <li>pXRF readings were conducted on the clean bag of the soil samples using the SciAps portable XRF analyser.</li> </ul>
Drilling techniques	• Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details.	• N/A
Drill sample recovery	Method of recording and assessing core and chip sample recoveries and results assessed.	• N/A
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	<ul> <li>All samples were logged on site at time of collection.</li> <li>Logging was qualitative noting Lithology colour, texture and alteration.</li> <li>Soil sampling is not suitable for Mineral Resource Estimation</li> </ul>



Sub-sampling techniques and sample preparation	• For all sample types, the nature, quality and appropriateness of the sample preparation technique.	<ul> <li>The soil samples were sieved to -2mm and analysed through the bag.</li> </ul>
Quality of assay data and laboratory tests	<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>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>pXRF readings were conducted on the clean bag of the soil samples using the SciAps portable XRF analyser. pXRF measurements are a direct elemental analysis on the surface of the sample with high sensitivity to the element.</li> <li>Readings were made with a SciAps portable XRF utilising standard factory calibrations for the element reported.</li> <li>The soil samples are non-homogenous and the results are semi-quantitative and are deemed to only provide an indication of the degree of metal mineralisation. Standard quality control procedures were put in place.</li> <li>Rock chip samples were also analysed by the SciAps portable XRF analyser. All rock chip samples were sent to ALS Laboratories for confirmation 4 acid digest and ICPMS assay.</li> </ul>
Verification of sampling and assaying	<ul> <li>The verification of significant intersections by either independent or alternative company personnel.</li> <li>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</li> </ul>	<ul> <li>No independent verification of results has been undertaken at this stage on the soil samples.</li> <li>No adjustment to assay data has been undertaken.</li> <li>Data storage in Perth office.</li> </ul>
	<ul> <li>Discuss any adjustment to assay data.</li> </ul>	
Location of data points	<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> </ul>	<ul> <li>The surface soil samples were located with a handheld GPS and recorded in a dedicated field data logger.</li> <li>Rock chip samples were collected at points of interest and recorded in a dedicated field data logger.</li> </ul>



		<ul> <li>Historic drill hole location were surveyed by handheld GPS when found.</li> <li>Grid MGA94 Zone 54.</li> </ul>
Data spacing and distribution	<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>	• The surface sample spacing was nominally 50 and 100 metres along lines which were 200 and 400 metres spaced, which is considered appropriate at this early stage of exploration.
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.	<ul> <li>Soil sampling was generally taken along east-west lines, which is approximately perpendicular to the strike of the stratigraphy.</li> </ul>
Sample security	The measures taken to ensure sample security.	<ul> <li>No specific security measures were undertaken, apart from normal industry procedures.</li> </ul>
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	<ul> <li>Given the early stage of the exploration results, no audits or reviews have been undertaken.</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>	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.	<ul> <li>The project area locations are shown on Figures 1, 2 and 3 of this report and described in the body of the report.</li> <li>The tenure is considered to be secure. It is held 100% under EPM's 14281,16197,17638,17914,17947, 18492,</li> </ul>



	• 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.	19733 and 27023, by TAS Exploration Pty Ltd a wholly owned subsidiary of Larvotto.
Exploration done by other parties	<ul> <li>Acknowledgment and appraisal of exploration by other parties.</li> </ul>	• Details are contained within the Larvotto Resources' prospectus dated 18 October 2021. Numerous small historical soil sampling, rock chip sampling and airborne geophysical programs have been undertaken, however there is limited drilling and regional scale geochemical sampling undertaken.
Geology	<ul> <li>Deposit type, geological setting and style of mineralization.</li> </ul>	• Within the Mt Isa Project, the Company is seeking base metals associated with both IOCG (iron oxide copper gold) and structurally controlled ISCG (iron sulphur copper gold) styles of mineralisation
Drill hole Information	<ul> <li>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:</li> <li>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.</li> </ul>	• N/A
Data aggregation methods	<ul> <li>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.</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> </ul>	No metal equivalent calculations were used.



Relation-ship between mineralization widths and intercept lengths	<ul> <li>These relationships are particularly important in the reporting of Exploration Results.</li> <li>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</li> </ul>	<ul> <li>The Company is seeking Cu, Au and base metals associated with structurally controlled ISCG (iron sulphur copper gold) and IOCG (iron oxide copper gold) resources.</li> <li>Mineralisation is controlled by fault/shear structures with vertical to subvertical.</li> </ul>
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.	<ul> <li>Appropriate diagrams are provided in the body of the report.</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 to avoid misleading reporting of Results.	<ul> <li>The reporting is considered to be balanced taking into account the early stage of the exploration.</li> </ul>
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.	• The is no other substantive exploration data.
Future work	• The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large- scale step-out drilling).	<ul> <li>Further geochemistry will expand the known area and test the extremities of the current tenement package.</li> <li>Follow up EM and IP geophysics will test depth and size potential of the identified anomalies.</li> <li>Drill testing is the second stage of advanced prospect/anomaly testing and follow up of the initial drilling.</li> </ul>

