



24 February 2025

## Iltani defines Orient East Exploration Target

Silver and base metals explorer **Iltani Resources Limited** (ASX: ILT, "Iltani" or "the Company") is pleased to announce an Exploration Target for the Orient East deposit at its 100%-owned Orient Project in North Queensland. The Exploration Target has been estimated to demonstrate the size and scale of Orient East and is a material step on the pathway to an initial Mineral Resource Estimate for the Orient deposit.

### HIGHLIGHTS:

- **Mining One Consultants have independently estimated an initial JORC compliant Exploration Target (ET) for Orient East:**

Orient East Exploration Target is:

**25 – 35 Mt @ 77 – 95 g/t Ag Equivalent** (30 g/t Ag Eq. cut-off grade) (Table 1)

Inclusive of high-grade core material in multiple lenses of:

**12 – 18 Mt @ 110 – 130 g/t Ag Equivalent** (80 g/t Ag Eq. cut-off grade) (Table 1)

Including a high-grade component of:

**3.5 – 4.0 Mt @ 280 – 340 g/t Ag Equivalent** (200 g/t Ag Eq. cut-off grade) (Table 2)

**1.1 – 1.4 Mt @ 430 – 520 g/t Ag Equivalent** (300 g/t Ag Eq. cut-off grade) (Table 2)

- **Orient Exploration Target (Orient East plus Orient West) increases to:**

Overall Orient Exploration Target is:

**99 – 135 Mt @ 61 – 73 g/t Ag Equivalent** (30 g/t Ag Eq. cut-off grade) (Table 5)

Inclusive of high-grade core material in multiple lenses of:

**32 – 42 Mt @ 110 – 124 g/t Ag Equivalent** (80 g/t Ag Eq. cut-off grade) (Table 5)

- **Iltani to restart Orient drilling program in March 2025 and a diamond drill rig will be mobilised in May 2025**
- **Targeting initial Mineral Resource Estimates for Orient West and East in 2025**

**The potential quantity and grade of the Exploration Target is conceptual in nature. There has been insufficient exploration to estimate a Mineral Resource and it is uncertain if further exploration will result in the estimation of a Mineral Resource. The Exploration Target has been prepared in accordance with the 2012 Edition of The Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves ('the JORC Code')**

This announcement refers to an Exploration Target estimate which was announced on 18 July 2024 (Iltani Defines Orient West Exploration Target). Iltani confirms that it is not aware of any new information or data that materially affects the information included in the release and that all material assumptions and technical parameters underpinning the results or estimates in the release continue to apply and have not materially changed.

For additional disclosures please refer to the Appendices attached to this ASX release.

The Orient East Exploration Target ranges are listed in Tables 1 and 2; Exploration Target areas are displayed in Figure 1.

Table 1 Orient East Exploration Target - Orient Silver-Indium Project (Queensland)

Global Exploration Target (30 g/t Ag Eq. cut-off grade)				High-Grade Core (80 g/t Ag Eq. cut-off grade)			
		Minimum	Maximum			Minimum	Maximum
<b>Tonnes Range</b>	<b>Mt</b>	<b>25</b>	<b>35</b>	<b>Tonnes Range</b>	<b>Mt</b>	<b>12</b>	<b>18</b>
<b>Ag Eq.</b>	<b>g/t</b>	<b>77</b>	<b>95</b>	<b>Ag Eq.</b>	<b>g/t</b>	<b>110</b>	<b>130</b>
Ag	g/t	22	27	Ag	g/t	32	39
In	g/t	4	5	In	g/t	7	9
Pb	%	0.6	0.7	Pb	%	0.8	1.0
Zn	%	0.7	0.8	Zn	%	0.9	1.1

The drill spacing at Orient East is of sufficient density to enable a model to be constructed of high-grade vein mineralisation intersected to date. The initial Orient East High-Grade Exploration Target (refer to Table 2) is **3.5 – 4.0 Mt @ 280 – 340 g/t Ag Eq.** (using a 200 g/t Ag Eq. cut-off grade) inclusive of high-grade core of **1.1 – 1.4 Mt @ 430 – 520 g/t Ag Eq.** (using a 300 g/t Ag Eq. cut-off grade).

Table 2 Orient East High-Grade Exploration Target - Orient Silver-Indium Project (Queensland)

High-Grade (200 g/t Ag Eq. cut-off grade)				High-Grade (300 g/t Ag Eq. cut-off grade)			
		Minimum	Maximum			Minimum	Maximum
<b>Tonnes Range</b>	<b>Mt</b>	<b>3.5</b>	<b>4.0</b>	<b>Tonnes Range</b>	<b>Mt</b>	<b>1.1</b>	<b>1.4</b>
<b>Ag Eq.</b>	<b>g/t</b>	<b>280</b>	<b>340</b>	<b>Ag Eq.</b>	<b>g/t</b>	<b>430</b>	<b>520</b>
Ag	g/t	95	110	Ag	g/t	150	180
In	g/t	21	25	In	g/t	30	35
Pb	%	2.2	2.6	Pb	%	3.2	3.9
Zn	%	2.1	2.5	Zn	%	3.1	3.8

A High-Grade Exploration Target (i.e. >200 g/t Ag Eq.) was not previously determined for Orient West as it is considered that the drill hole spacing, generally at 200m sections, is too wide to demonstrate continuity of mineralisation along strike at 200 g/t Ag Eq. and 300 g/t Ag Eq. cut-off grades. This compares to a nominal section spacing of 80m, with some infill to 40m, for the Main Zone of the Orient East drilling. It is envisaged that once completed, the infill drilling to commence at Orient West in March will be of sufficient density to not only complete a Mineral Resource Estimate but also to delineate high-grade zones.

The Orient Exploration Target (Orient East & Orient West) (refer to Table 5) has increased substantially to **99 – 135 Mt @ 61 – 73 g/t Ag Eq.** (using a 30 g/t Ag Eq. cut-off grade) inclusive of high-grade core of **32 – 42 Mt @ 110 – 124 g/t Ag Eq.** (using an 80 g/t Ag Eq. cut-off grade).

Table 3 Orient East Exploration Target - Orient Silver-Indium Project (Queensland)

Orient East Exploration Target (30 g/t Ag Eq. cut-off grade)				High-Grade Core (80 g/t Ag Eq. cut-off grade)			
		Minimum	Maximum			Minimum	Maximum
<b>Tonnes Range</b>	<b>Mt</b>	<b>25</b>	<b>35</b>	<b>Tonnes Range</b>	<b>Mt</b>	<b>12</b>	<b>18</b>
<b>Ag Eq.</b>	<b>g/t</b>	<b>77</b>	<b>95</b>	<b>Ag Eq.</b>	<b>g/t</b>	<b>110</b>	<b>130</b>
Ag	g/t	22	27	Ag	g/t	32	39
In	g/t	4	5	In	g/t	7	9
Pb	%	0.6	0.7	Pb	%	0.8	1
Zn	%	0.7	0.8	Zn	%	0.9	1.1

Table 4 Orient West Exploration Target - Orient Silver-Indium Project (Queensland)

Orient West Exploration Target (30 g/t Ag Eq. cut-off grade)				High-Grade Core (80 g/t Ag Eq. cut-off grade)			
		Minimum	Maximum			Minimum	Maximum
<b>Tonnes Range</b>	<b>Mt</b>	<b>74</b>	<b>100</b>	<b>Tonnes Range</b>	<b>Mt</b>	<b>20</b>	<b>24</b>
<b>Ag Eq.</b>	<b>g/t</b>	<b>55</b>	<b>65</b>	<b>Ag Eq.</b>	<b>g/t</b>	<b>110</b>	<b>120</b>
Ag	g/t	15	20	Ag	g/t	28	35
In	g/t	11	13	In	g/t	20	24
Pb	%	0.3	0.5	Pb	%	0.7	0.8
Zn	%	0.5	0.6	Zn	%	0.9	1.1

Table 5 Orient Exploration Target - Orient Silver-Indium Project (Queensland)

Orient Exploration Target (30 g/t Ag Eq. cut-off grade)				High-Grade Core (80 g/t Ag Eq. cut-off grade)			
		Minimum	Maximum			Minimum	Maximum
<b>Tonnes Range</b>	<b>Mt</b>	<b>99</b>	<b>135</b>	<b>Tonnes Range</b>	<b>Mt</b>	<b>32</b>	<b>42</b>
<b>Ag Eq.</b>	<b>g/t</b>	<b>61</b>	<b>73</b>	<b>Ag Eq.</b>	<b>g/t</b>	<b>110</b>	<b>124</b>
Ag	g/t	17	22	Ag	g/t	30	37
In	g/t	9	11	In	g/t	15	18
Pb	%	0.4	0.6	Pb	%	0.7	0.9
Zn	%	0.6	0.7	Zn	%	0.9	1.1

**Iltni Managing Director Donald Garner** commented: *"Our Orient East Exploration Target is a very strong indication that the Orient Deposit is Australia's largest silver-indium-lead-zinc deposit and on track to being a large silver deposit.*

*Iltni has delivered an Orient East Exploration Target of **25 to 35 Mt at 77 to 95 g/t Ag Eq.**, containing a high-grade core of **12 to 18 Mt at 110 to 130 g/t Ag Eq.** This estimate is based on the 35 RC holes drilled to date at the prospect.*

*This Exploration Target is the second defined for the Orient Project, in addition to the Orient West Exploration Target, and gives a total Orient Exploration Target of **99 to 135 Mt at 61 to 73 g/t Ag Eq.** with a high-grade core of **32 to 42 Mt at 110 to 124 g/t Ag Eq.***

*Mining One also estimated a more discrete high-grade Exploration Target for Orient East of **3.5 to 4.0 Mt @ 280 – 340 g/t Ag Eq.** inclusive of high-grade core of **1.1 to 1.4 Mt @ 430 – 520 g/t Ag Eq.***

*We believe that Orient West will also be able to add to this higher-grade mineralisation and are looking forward to seeing the results from the drilling planned to commence in March.*

*These results set up some strong deliverables for the coming 2025 Orient exploration program, which is scheduled to start mid-March, subject to the end of the wet season, when Iltni plans to:*

- *Complete the JORC Inferred Resource drill out program at Orient West and Orient East*
- *Continue to explore the Orient System, targeting extensions to known mineralisation plus test new areas (Orient North and South)*
- *Target the area between Orient West and East – over 2km<sup>2</sup> undercover, with only one drillhole to date (ORR025) in this area, which intersected silver-lead-zinc-indium mineralisation demonstrating mineralisation is present in this area*
- *Target the high-grade mineralisation at Orient West and East to better understand the potential to support a deeper (UG) resource*

*These exploration activities will provide strong news flow for our Shareholders and we look forward to keeping you updated on our progress."*



## 1. Orient East Exploration Target

Iltani's drilling during 2023 targeted the small cluster of historic workings at Orient East to determine the potential of the prospect. Results were very promising, returning some broad intersections of moderate grade and some more discrete high-grade zones of silver-lead-zinc-indium mineralisation.

The initial seven RC drill holes completed covered an area of 300m by 100m, the extent of the historic workings. The nature of the mineralisation encountered was stockwork-style containing narrow high-grade veins.

A more systematic drill program was devised for Orient East to test mineralisation to the west, outside the zone of historic workings. Drilling was designed on 80m-spaced section lines partially to fit in with previous drilling and to better define the anticipated stockwork-style mineralisation.

Initial results far exceeded expectations, intersecting multiple high-grade zones, leading to expanding the program further west. Eventually drilling covered 450m strike extent of the Orient East Main Zone, with drill results surpassing high grade values encountered at Orient West (refer to Figure 1).

To date, Iltani has completed 35 RC drill holes at Orient East for a total of 5,154m drilled, enabling Mining One (independent mining consultants engaged by Iltani) to estimate an Orient East Exploration Target.

The Orient East Exploration Target estimated by Mining One is:

- **25 – 35 Mt @ 77 – 95 g/t Ag Equivalent (30 g/t Ag Eq. cut-off grade) (refer to Table 1);** inclusive of high-grade core material in multiple lens of:
- **12 – 18 Mt @ 110 – 130 g/t Ag Equivalent (80 g/t Ag Eq. cut-off grade) (refer to Table 1);** including a high-grade component of:
- **3.5 – 4.0 Mt @ 280 – 340 g/t Ag Equivalent (200 g/t Ag Eq. cut-off grade) (refer to Table 2)**
- **1.1 – 1.4 Mt @ 430 – 520 g/t Ag Equivalent (300 g/t Ag Eq. cut-off grade) (refer to Table 2)**

Figure 1 Orient East Exploration Target Area

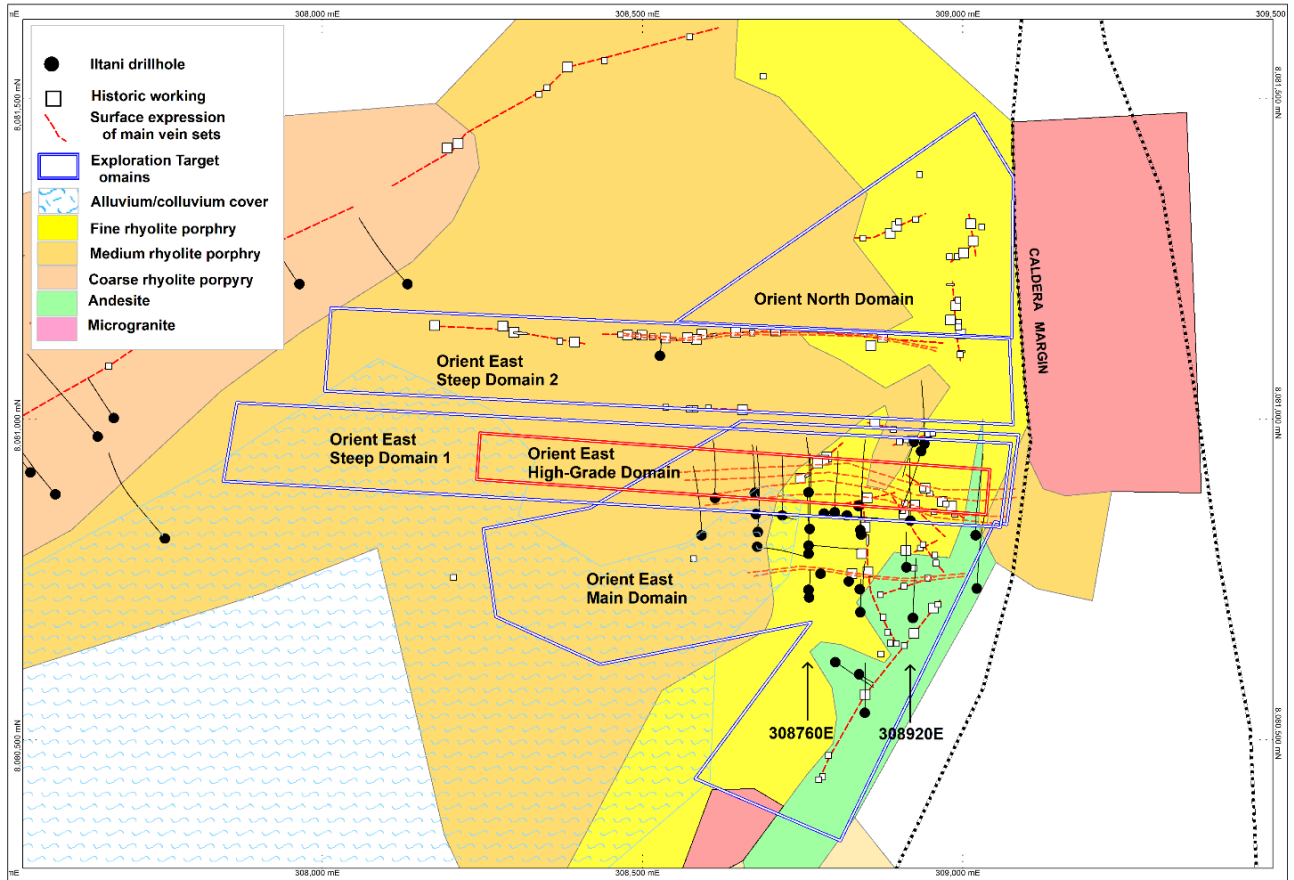


Figure 1 outlines the main domain estimation areas for the Orient East Exploration Target.

Mineralisation occurs as both steep east-west and moderate to shallow south dipping vein systems, hence the zones were domained and estimated separately. Orient East Steep Domain 1 and the Orient North Domains were estimated based on geological and mineralisation similarities to the Main Orient East Mineralisation, surface geochemistry results comprising soil and outcrop sampling, and geological and structural mapping of the historic workings. Grade was assigned based on the Orient Main 30 g/t Ag Eq. cut-off grade model.

The Orient East Steep Domain 1 also includes a High-Grade Domain based on intersections >300 g/t Ag Eq. The extent (strike and depth) of this Domain is controlled by the relatively small extent of current drilling.

The extent of the various Domains are constrained by the current drilling and the relatively smaller area of historic workings which is also related to broader areas of surficial cover as compared to Orient West.

Figure 2 Orient East Exploration Target Area Cross Section (308920 looking E)

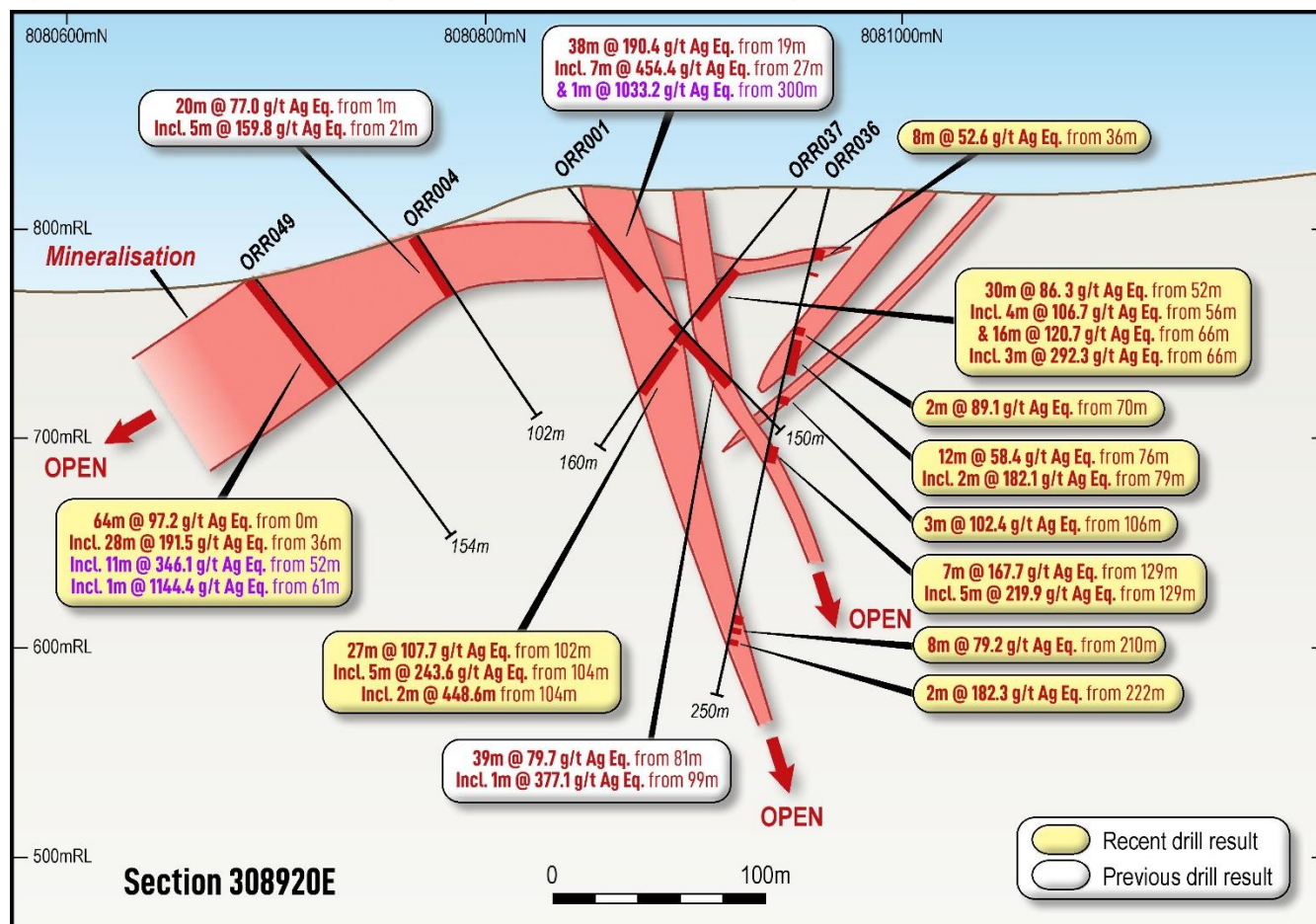
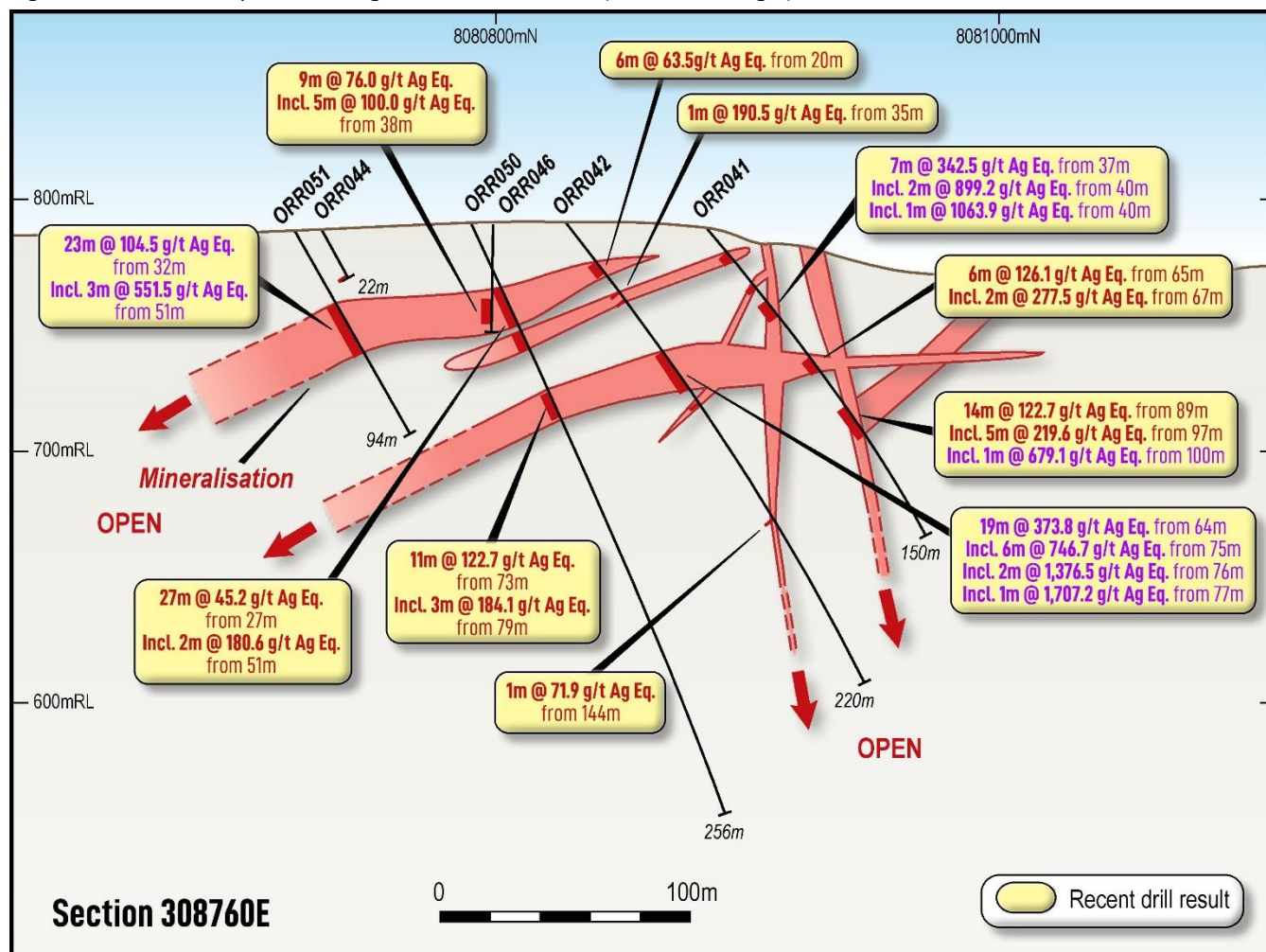


Figure 2 demonstrates the Orient East Steep Domain 1 and more shallow dipping Orient East Main Domain. Drill hole ORR036 contains the deepest intersection to date (215m below surface) within the Steep Domain 1.

Not shown on the section, the high grades from both Domains have been incorporated to construct the High-Grade Domain. The timing relationship between the two Domains is not yet known. There appears to be little variation in mineralogy and grade, hence they appear to be contemporaneous. Diamond drilling has been planned for the next phase of drilling which will provide structural data and determine whether there is any variation in mineralisation style between the steep and shallow Domains.

Figure 3 Orient East Exploration Target Area Cross Section (308760 looking E)



Section 308760E (Figure 3) is located in the central portion of the current Orient East drilling grid. As with Section 308920E (Figure 2), both Domains are apparent demonstrating continuity of mineralisation both along strike and at depth.

Initially, this was the most westerly-most planned section for the prior round of drilling at Orient East. The visual high-grade sulphide mineralisation encountered in the RC samples in holes on this section provided confidence to complete two additional drill traverses to the west, stepping out a further 160m, even before results had been received from the assay lab.

### 1.1. Orient East Exploration Target Upside

The last round of drilling at Orient East was initially designed to test immediate depth and western extensions to the historic workings and results from holes completed in 2023 that targeted the workings.

#### ■ Orient East Remains Open to the West

As drilling continued to the west, away from the historical workings and into areas of minimal outcrop, it was apparent that not only did the mineralisation continue, but that the intensity of sulphides and associated Ag-Pb-Zn-In grades also increased.

Drilling was paused on the most westerly section (drill holes ORR058 & ORR059) as Iltani still had not received any assay results from the laboratory (at this stage, extension drilling was being conducted on visual grade estimates) and it was thought prudent to wait for assay results to determine exactly what magnitude of grade was being encountered.

Drilling appears to have intersected mapped north-south veinlets on the surface with some later holes drilled to the east to intersect this zone. This orientation of mineralisation remains poorly defined; hence Iltani has planned diamond drilling to better define structural orientations and vein overprinting relationships. A secondary zone 100m to the south of the Main Zone was also tested over 200m strike extent. This southerly zone remains open to the west and at depth.

The Main Domain and Steep Domain mineralisation appears to be closed off to the east near the caldera boundary. However, mineralisation remains open to the west, north, south and at depth. Based on the extent of mapped veining and historic workings along the North Vein (northern margin of Steep Domain 2), there is no reason to believe that the Orient East veins would not extend as far as Orient West. Soil sampling and intermittent outcrop sampling along this trend provides supporting evidence of the western extent of mineralisation.

#### ■ Potential to Increase Grade

There is potential to increase the extent of the higher-grade mineralisation at Orient East, particularly with deeper drilling. The Higher-Grade Domain estimated for the Orient East Exploration Target is currently constrained by the extent of drilling, particularly at depth. Several holes intersected relatively broad intersections of >300 g/t Ag Eq. sulphide mineralisation, up to a maximum of 19m, with several intersections of 5 to 6m width at shallow depths (within 60m from surface). The next phase of deeper drilling will test the high-grade zones to determine depth extent to at least 120m below surface, or over 200m down dip.

## 1.2. Summary of Relevant Exploration Data

The Orient East Exploration Target is based on the interpretation of the following geology and mineralisation data that has been collated as of the date of this announcement and information in this report that relates to previously reported exploration results has been cross-referenced in this report to the date it was reported to the ASX. Exploration data is comprised of:

- 35 reverse circulation (RC) drill holes completed for 5,154 metres drilled
- 2,522 assay results from RC drill hole samples
- Detailed surface geological mapping
- Wireframing and 3D block modelling of the Orient East mineralised vein systems.

(NB: drill samples comprise 1m cone split samples, 4m composite spear samples, with some samples not submitted for assay as they were first tested with a portable XRF device).

Historical exploration completed at Orient includes:

- 255 rock chip assay results from Orient East and Orient West
- Geophysical data sets (14km<sup>2</sup> drone mag survey over the Orient area plus 7.18 line km of a dipole-dipole Induced Polarisation survey)
- Great Northern Mining Corporation (GNMC) completed 16 diamond drill holes at Orient West and five diamond drill holes at Orient East in the 1970s. Drilling did not delineate the margins of mineralisation, leaving it open to extension in all directions. GNMC undertook limited assay of the drill core samples with a focus on the massive sulphide high grade veins only. Extensive low grade mineralisation was logged, usually forming halos around the higher grade veins but this was not assayed. The historic drill data was not used in the Exploration Target estimation process due to lack of certainty of the data.

## 1.3. Methodology to Determine the Grade and Tonnage Range for the Exploration Target

Iltani engaged Mining One Consultants to build a 3D model of the Orient System (Orient West and East) to better understand the size and scale of the mineralised vein systems, allowing Iltani to optimise drill hole design. This model has been continually updated as drilling has been completed and was used as the basis for estimating the Exploration Target.

Mineralised intercepts in downhole drilling align from section to section along structures that can be assumed to be continuous between drillholes. Mineralised zones broadly pinch and swell but can be linked together across drilled sections. Some areas of interpretation, especially regarding thin and lower grade lenses, should be considered initial and linkages between drillholes may change with further information, however the current interpretation holds true with concurrent surface geological observations and areas of denser drilling.

Apart from drilling, strike extents of the exploration model are also based on soil anomalism above the mineralised veins and the extent of historic workings which have been rock chip sampled.

The Exploration Target covers an area of 1200m north-south by 1300m east-west. The defined mineralised lenses were divided into two primary domains, the shallow to moderate south dipping Orient East Main Domain and the east-west steeply dipping Orient East Steep Domain.

Assays were composited in each domain to 1m which is the nominal assay interval. Domains were snapped to assay intervals and Ag, Pb, Zn & In were estimated from the composites constrained by each domain using hard boundaries and using inverse distance squared (ID<sup>2</sup>) estimation in four passes.

The Block Model has parent blocks 20m x 20m x 10m. It is sub-blocked using an octree method 8 x 8 x 16 resulting in sub-blocks as small as 2.5 m x 2.5m x 0.625m to honour the vein geometry even as they pinch out or splay against each other. Grade was estimated using a minimum of five samples and a maximum of ten samples for each block.



Drilling intersects the mineralised structures at 60m intervals in the area of closest spaced drilling. Grades were not capped. The highest grades are in the core of the deposit where the estimate uses up to 50 samples to estimate grade. High grades including outliers will impact local grades in the core of the deposit but will have very little influence on blocks away from drilling.

Global approximated exploration target figures were generated using a 30 g/t Ag equivalent cut off and the high-grade core target figures were approximated using an 80 g/t Ag equivalent cut off.

An assumed density of 2.9 g/cc was applied to determine the tonnes. Density vs sulphide content was inspected at other multi-commodity deposits to understand the effect of similar grades to density. At similar average grades to Orient, the result is negligible. Some high sulphide zones likely have a higher density however, the volume of this material is very low and deemed negligible for consideration in the current study.

The high-grade estimates (200 g/t Ag Eq. cut-off and 300 g/t Ag Eq. cut-off), which is dominated in much narrower units, was limited to a minimum of 2 samples and maximum of five within 50m to reduce dilution from more distant assays. Blocks farther away than 50m from drilling revert to using minimum five and maximum ten to have a more smoothed out distribution.

The Exploration Target Estimation for Orient East has utilised a more rigorous methodology that is generally utilised for Mineral Resource Estimation without a more constrained statistical approach required for the latter. This is to ensure the Exploration Target Estimation result is meaningful and, with further drilling, will be used as a basis for a Mineral Resource Estimate.

#### **1.4. Progress Towards an Orient East Mineral Resource Estimate**

Proposed exploration activities designed to progress the Orient East Exploration Target to a Mineral Resource Estimate will consist of extensive drilling and is planned to take place over the next six to twelve months.

##### **1.4.1. Native Title Surveys and Clearance Activities**

Heritage surveys and clearance activities required to conduct drilling activities have been completed by the Native Title party (Mbabaram Aboriginal Corporation RNTBC).

##### **1.4.2. Approvals**

Iltani has the appropriate Conduct and Compensation Agreements (CCA) in place with the relevant landowners.

##### **1.4.3. Exploration Permit Minerals (EPM) 27223**

The Exploration Target is located on EPM 27223, which is wholly owned by Iltani. No further permits are required to be granted to allow Iltani to test the Exploration Target.

##### **1.4.4. Proposed Exploration Program**

Iltani has commenced design work for the next stage of drilling (reverse circulation and diamond) activities at the Orient Silver-Indium Project. The drilling program will be designed to:

- Convert the Orient West Exploration Target to a Mineral Resource Estimate. Focus will be on the higher-grade core area and also to extend mineralisation along strike and down-dip.
- Convert the Orient East Exploration Target to a Mineral Resource Estimate. Focus will be on expanding mineralisation along strike and down-dip.
- Test the Orient North and Orient South targets to determine economic potential of the prospects.



- Generate representative samples for specific gravity measurements (massive and disseminated sulphides).

#### **1.4.5. Metallurgical Test Work**

Iltani has reported on historical metallurgical test work (please refer to ASX Release dated 14 November 2023 “Test work confirms silver-indium production potential”).

- Historical metallurgical test work for the Orient project confirms its potential to produce high quality lead-silver and a zinc-indium-silver concentrates.
- Test work indicates the lead-silver concentrate would grade 48% Pb and 2,250g/t Ag, and the zinc-indium concentrate would grade 47-48% Zn, 2,000 g/t In and 200 g/t Ag.
- Indium’s strategic importance as a critical raw material has been noted by multiple studies.
- This production potential positions Orient as one of Australia’s largest silver-indium projects and a strategically located potential supplier of indium concentrates going forward.

As part of the next phase of drilling activities, Iltani will be planning to carry out metallurgical test work to confirm the historical results and also to understand the potential to recover tin as a saleable product.

#### **1.4.6. Mineral Resource Estimate**

Iltani has engaged Mining One Consultants for ongoing modelling assistance and the eventual preparation of a Mineral Resource Estimate, consistent with the requirements of the 2012 Edition of the JORC Code.

## 2. Orient Project Exploration Target

The Orient Exploration Target (Orient East & Orient West) (refer to Table 6) has increased substantially to **99 – 135 Mt @ 61 – 73 g/t Ag Eq.** (using a 30 g/t Ag Eq. cut-off grade) inclusive of high-grade core of **32 – 42 Mt @ 110 – 124 g/t Ag Eq.** (using an 80 g/t Ag Eq. cut-off grade).

Table 6 Orient Exploration Target - Orient Silver-Indium Project (Queensland)

Orient Exploration Target (30 g/t Ag Eq. cut-off grade)				High-Grade Core (80 g/t Ag Eq. cut-off grade)			
		Minimum	Maximum			Minimum	Maximum
<b>Tonnes Range</b>	<b>Mt</b>	<b>99</b>	<b>135</b>	<b>Tonnes Range</b>	<b>Mt</b>	<b>32</b>	<b>42</b>
<b>Ag Eq.</b>	<b>g/t</b>	<b>61</b>	<b>73</b>	<b>Ag Eq.</b>	<b>g/t</b>	<b>110</b>	<b>124</b>
Ag	g/t	17	22	Ag	g/t	30	37
In	g/t	9	11	In	g/t	15	18
Pb	%	0.4	0.6	Pb	%	0.7	0.9
Zn	%	0.6	0.7	Zn	%	0.9	1.1

### 2.1. Orient Project Upsides and Extensions

The Orient East and Orient West Exploration Target outcomes has provided confidence for the continued drill definition of mineralisation in both areas, progressing towards a JORC compliant Mineral Resource Estimate.

The larger Exploration Target tonnage outlined for Orient West is directly related to the extent of drilling (1,600m strike at Orient West versus 400m strike at Orient East) and extent of historic workings (2,200m strike at Orient West versus 700m at Orient East) and is not a reflection of lesser tonnage potential for Orient East.

#### ■ Potential to Increase Tonnage and Grade at Orient West

It is anticipated that with additional infill drilling at Orient West, especially within the High Grade Core Area, grade should increase. Additionally, the Orient West Exploration Target was based on Veins 1 to 4 with Veins 5 and 6 not sufficiently drilled to be included in the target estimate. Systematic drilling of the latter veins will also provide increased tonnage at Orient West.

Planned drilling at Orient West will be initially to infill the current broad drill section spacing to 100m or less for the High-Grade Core area for Mineral Resource definition and estimation. Further drilling may then be undertaken to better define extensions to the northeast and southwest to infill the Orient West Exploration Target envelope, and deeper drilling in the High-Grade Core Area targeting high-grade down dip extensions to explore the potential for underground mining.

#### ■ Potential to Increase Tonnage and Grade at Orient East

The next round of drilling for Orient East will infill to 80m (some sections to 40m) and test depth extensions in the main area of drilling. Additional tonnage and grade are targeted with significant step out drilling to test extensions along strike of the Main Domain, Steep Domain 1 and Steep Domain 2 that will lead to better definition of the >300 g/t Ag Eq. high-grade zones.



■ **Orient North Represents a High-Priority Target**

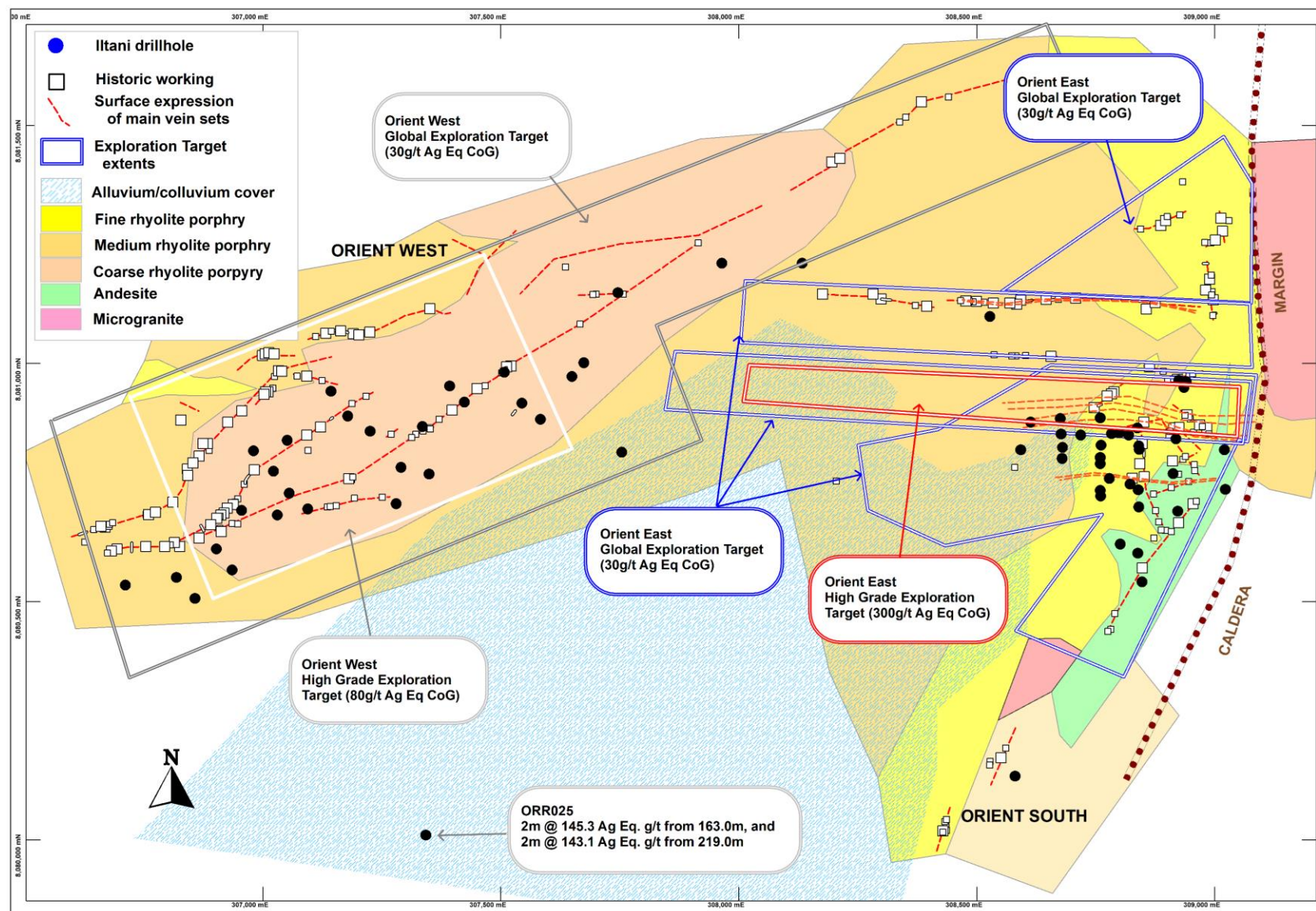
There has been no recent drilling at Orient North, with some historic diamond core drilling completed during the early 1980's. The area contains multiple adits and shafts targeting both north-south and east-west orientations of mineralisation. Lithology, mineralisation style, geochemistry and structural setting adjacent to the caldera boundary is analogous to Orient East. The Orient North mineralisation and workings occur along a north-south ridge (northern continuation from Orient East) with steep drops either side leading to areas of alluvium and colluvium cover. The Prospect will be a high-priority target for the next phase of drilling particularly due to the strong similarities to Orient East.

■ **Central Zone Extensions (Under Cover)**

Drill hole ORR025 intersected multiple silver-lead-zinc-indium vein systems and returned **2m @ 145.3 g/t Ag Eq.** from 163.0m downhole; **2m @ 143.1 g/t Ag Eq.** from 219.0m downhole; and **1m @ 64.2 g/t Ag Eq.** from 186.0m downhole in an area of minimal outcrop and no surface expression of mineralisation (refer to ILT ASX release 5 June 2024: IP drillhole results confirm extension to Orient Project mineralisation).

Figure 4 shows the location of ORR025 and the extent of colluvium and alluvial sheetwash to the south and between Orient East and West where there is minimal outcrop and hence no historic workings, and where surface geochemical methods are not effective. This is a large area of approximately 2km<sup>2</sup> under which may lie further blind mineralisation. Due to the previously reported effectiveness of the EM geophysical technique trialled on the deep diamond hole that definitively identified the Orient West mineralisation, Iltani is investigating the application of aerial EM surveys to investigate areas of cover in the Orient area for blind sulphide mineralisation.

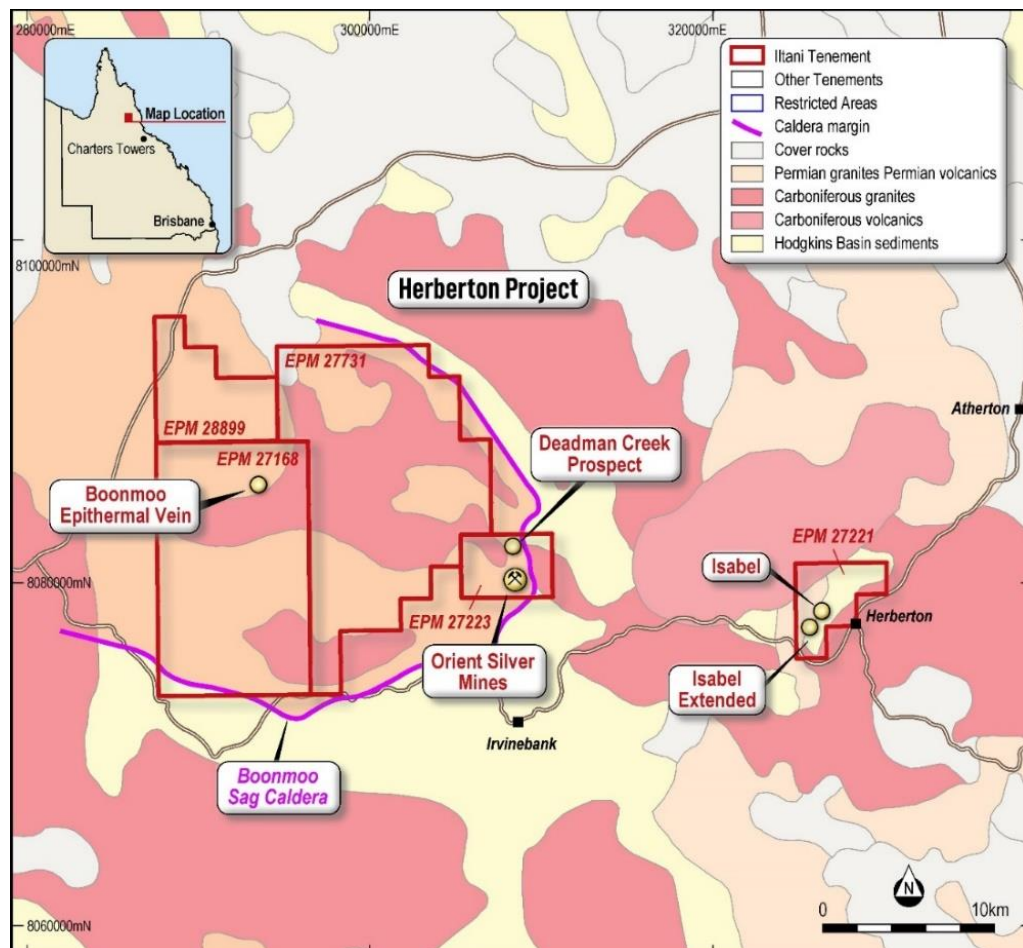
Figure 4 Orient Project Exploration Target



### 3. Orient Project Overview

The Orient project is located on Ittani's wholly owned tenement EPM 27223, approximately 20km west of the historic mining town of Herberton and 9km north of Irvinebank (Figure 5) in Northern Queensland. Access is via the Herberton-Petford Road and then the Hales Siding Road.

Figure 5 Orient Project Location



#### 3.1. History

Mineralisation in the project area was discovered in 1886 and was mined until 1924, with historic mining activities occurring at both Orient West and Orient East which are located approximately 2km apart. Mining was conducted intermittently on mineralised vein systems continuing for over 600m at Orient East and for more than 900m at Orient West. Production figures are incomplete but records from the Queensland Mines Department include 6,600 tons of high-grade ore averaging 46 ounces of silver and 40% lead per ton.

#### 3.2. Regional Geology

The Orient Project lies within the Boonmoo Sag caldera that is filled predominantly with Carboniferous rhyolitic ignimbrites of the Featherbed volcanics. The ignimbrites are intruded by comagmatic granitoids and some rhyolitic porphyries, particularly around the margins of the caldera. The caldera rests on a basement of Siluro-Devonian deep water turbidite sediments of the Hodgkinson Basin that have been metamorphosed to lower greenschist facies. Both the basement and the Carboniferous volcanics have been intruded by Permian granitoids.

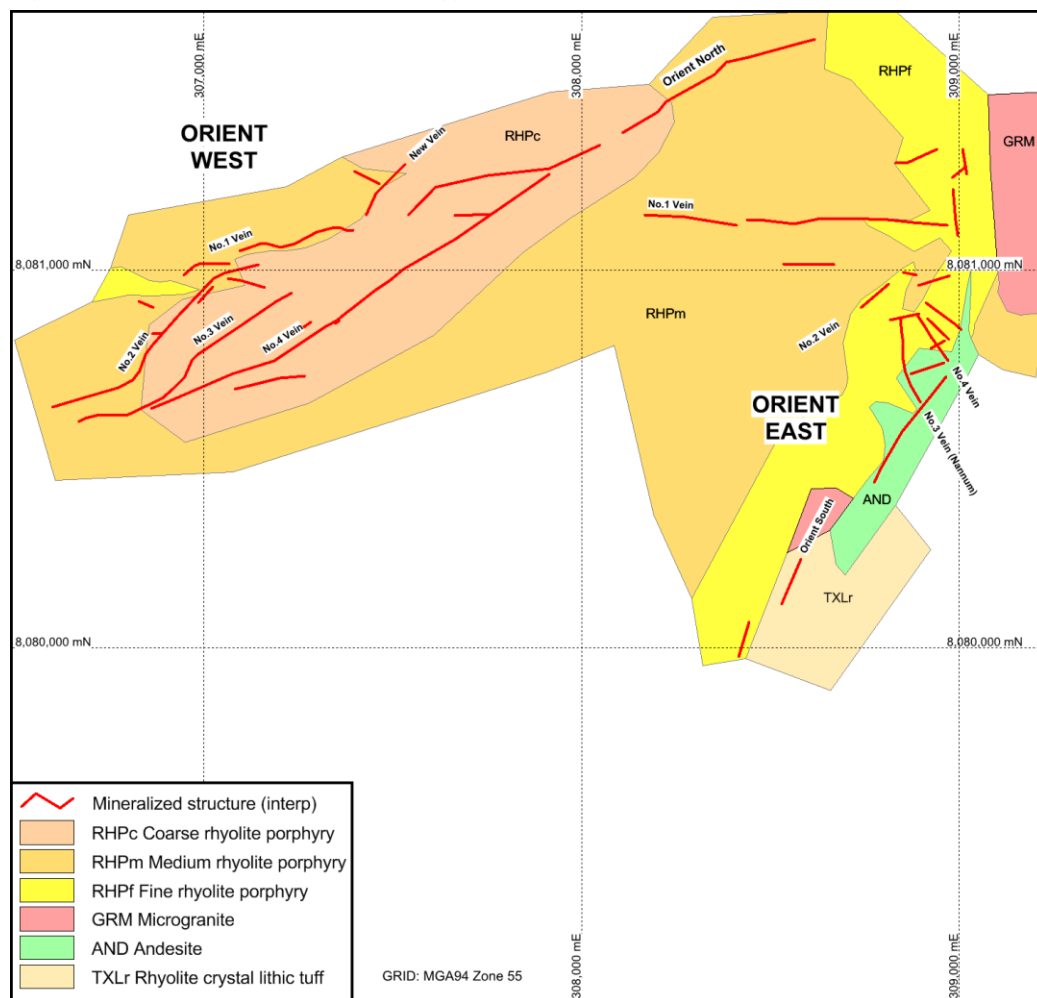
A halo of tin and other metal occurrences about 5km wide surrounds the Boonmoo Sag caldera. Most of the occurrences are vein and breccia style within basement sediments and carboniferous granitoids. This halo indicates a large fluid system with a large metal budget associated with the magmatic system beneath the caldera. Very few metallic mineral occurrences are known within the caldera. This reflects the relatively shallow level of exposure of the system inside the caldera. The Orient deposit is quite exceptional in this system since it occurs within the caldera.

### 3.3. Prospect Geology

The Orient prospect area is dominated by rhyolitic porphyries with phenocrysts of quartz, plagioclase, k-feldspar and biotite. Fine medium and coarse grained subunits of the porphyry are mappable.

The fine grained rhyolite porphyry is characterised by 2-10% phenocrysts up to 5mm in size in an aphanitic groundmass. Flow banding is evident in a few outcrops with steep dips. In previous reports, this unit is commonly referred to as the Nannum Rhyolite. It occurs as irregular shaped bodies that trend broadly north (parallel to the caldera margin) in the Orient East area. The margins of the bodies are difficult to define because it resembles fine grained variants of the medium grained porphyry and it is commonly overprinted by strong argillic alteration. The irregular shapes and steep dipping flow bands suggest that these bodies probably represent flow dome complexes intruded near the margin of the caldera.

Figure 6 Simplified Orient Project Geology



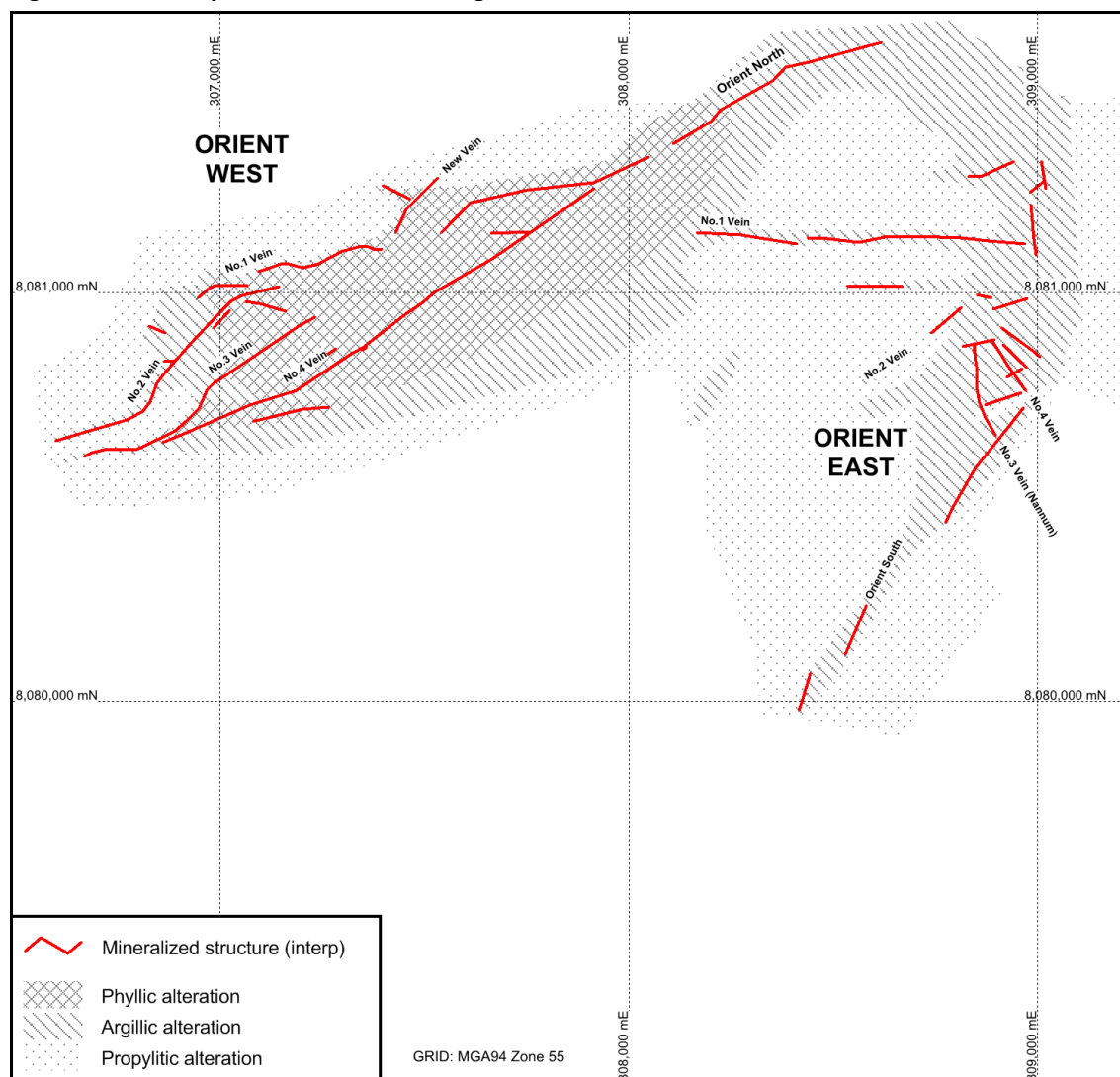
### 3.4. Alteration

A broad area of hydrothermal alteration envelopes the mineralized structures at the Orient prospect. Much of the coarse grained rhyolite porphyry has been affected by strong phyllic (sericite-quartz-carbonate) alteration.

Argillic alteration, characterised by illitic clays or very fine sericite + quartz replacing feldspars and very fine grained muscovite replacing biotite, is common in the fine and medium grained rhyolite porphyries. The phyllic and argillic alteration facies may reflect similar hydrothermal fluid conditions with the size of alteration mica grains being restricted in the argillic zone by the fine grain size of host minerals. Argillic alteration is more intense adjacent to most mineralized structures. This may reflect declining temperature in the hydrothermal fluid system during the precipitation of mineralized veins. It may also be partly due to conversion of remaining feldspars to clay by acid generated in the supergene weathering zone.

The close spatial relationship between phyllic-argillic alteration facies and the mineralized structures suggests that the alteration represents the mineralizing hydrothermal system and hence is a guide to the areas with the strongest fluid flow. All mapped rocks outside the phyllic/argillic zone are affected by weak to moderate propylitic alteration, characterised by chlorite replacing mafic minerals, epidote partially replacing plagioclase and weak illite alteration of all feldspars.

Figure 7 Orient Project Alteration Assemblages





### 3.5. Mineralisation

The Orient veins are variably mineralised with sphalerite, pyrite, galena, chalcopyrite, arsenopyrite, marmatite, stannite-cassiterite, boulangerite (Pb-Sb-Ag), tennantite (Cu-As-Zn) and tetrahedrite (Cu-Sb-Ag). Indium as well as minor gallium and cadmium are also associated with the various ore minerals. Mineralisation has a close association with pyrrhotite.

Historic petrology reports indicate that the finer-grained the galena the higher the silver content. Jamesonite (Pb-Ag-Sb) was recognised in some samples which can contain relatively high silver values. Sphalerite is often the dominant sulphide and is associated with elevated indium grades.

Minimal quartz (to 5%) is associated with the sulphide mineralisation.

### Authorisation

This announcement has been approved for issue by Donald Garner, Iltani Resources Managing Director.

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This ASX release contains information extracted from ASX market announcements reported in accordance with the 2012 edition of the “Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves” (2012 JORC Code). Further details (including 2012 JORC Code reporting tables where applicable) of exploration results referred to in this ASX release can be found in the following announcements lodged on the ASX:

Table 7 Iltani ASX Releases (Orient East)

<b>Date</b>	<b>Announcement</b>
13 October 2023	Iltani hits silver-lead-zinc-indium-antimony-tin at Orient
24 October 2023	Iltani confirms significant new Ag-Pb-Zn system discovery
13 November 2023	Test work confirms silver-indium production potential
5 December 2024	Iltani completes 33 drill holes at Orient Silver-Indium Project
11 December 2024	Iltani’s drilling returns up to 1,064 g/t Ag Equivalent
16 December 2024	Orient East highest grades to date – up to 1,707 g/t Ag Equivalent
20 December 2024	Orient East returns 2,066 g/t Ag Equivalent
14 January 2025	Orient East drilling continues to return wide high-grade intersections of up to 62m @ 110.3 g/t Ag Eq.

These announcements are available for viewing on the Company’s website [www.iltaniresources.com.au](http://www.iltaniresources.com.au) under the Investors tab. Iltani Resources confirms that it is not aware of any new information or data that materially affects the information included in any original ASX announcement.



## Competent Persons Statement

### Exploration Target

The Exploration Target estimate has been prepared by Mr Stuart Hutchin, who is a Member of the Australian Institute of Geoscientists. Mr Hutchin is a full time employee of Mining One Consultants. Mr Hutchin has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity for which he is undertaking to qualify as a Competent Person as defined in the 2012 Edition of the "Australian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves".

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

### Exploration Results

The information in this report that relates to Exploration Results is based on information compiled by Mr Erik Norum who is a member of The Australasian Institute of Geologists (AIG), and is an employee of Iltani Resources Limited., and who has sufficient experience relevant to the style of mineralisation and type of deposit under consideration and to the activities being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting Exploration Results, Mineral Resources and Ore Reserves' (JORC Code).

Mr Norum consents to the inclusion in this report of the matters based on the information in the form and context in which it appears.

Information in this report that relates to previously reported Exploration Results has been cross-referenced in this report to the date that it was reported to the ASX. Iltani Resources Limited confirms that it is not aware of any new information or data that materially affects information included in the relevant market announcements.


**Metallurgical Equivalent Calculation – Additional Disclosure**

The equivalent silver formula is  $Ag\ Eq. = Ag + (Pb \times 35.5) + (Zn \times 50.2) + (In \times 0.47)$

Table 8 Metal Equivalent Calculation - Recoveries and Commodity Prices

<b>Metal</b>	<b>Price/Unit</b>	<b>Recovery</b>
Silver	US\$20/oz	87%
Lead	US\$1.00/lb	90%
Zinc	US\$1.50/lb	85%
Indium	US\$350/kg	85%

Please refer to the release dated 14 November 2023 (Test Work Confirms Silver-Indium Production Potential) detailing the historical test work which Iltani is using to support the metal equivalent calculation.

The metal equivalent calculation (Ag Eq.) assumes lead and silver will be recovered to a lead concentrate and zinc, silver and indium will be recovered to a zinc concentrate. It is Iltani's opinion that all the elements included in the metal equivalent calculation have a reasonable potential to be recovered and sold.

It should be noted that there are other metals present, notably antimony and tin, that have the potential to be included in the metallurgical equivalent calculation, but at this stage, Iltani has chosen not to do so. These metals will likely also be recovered to the concentrates, notably the lead concentrate, however Iltani is currently assuming that these metals will not be payable, so are excluded from the metallurgical equivalent calculation.

Should this situation change, and the antimony and tin become payable in the lead concentrate and/or metallurgical test work indicates that the antimony or tin can be recovered to a separate concentrate where they are payable, then the metallurgical equivalent calculation could be expanded to include these metals.

## **Orient West Exploration Target – Additional Disclosure**

### **1. Summary of Relevant Exploration Data**

The Exploration Target is based on the interpretation of the following geology and mineralisation data that has been collated as of the date of this announcement, which includes previously reported exploration results, and information in this report that relates to previously reported exploration results has been cross-referenced in this report to the date it was reported to the ASX. Exploration data is comprised of:

- 22 reverse circulation (RC) drill holes completed for 4,406 metres drilled
- 2,773 assay results from RC drill hole samples
- Detailed surface geological mapping
- Wireframing and 3D block modelling of the Orient West mineralised vein systems.

Historical exploration completed at Orient includes:

- 255 rock chip assay results from Orient East and Orient West
- Geophysical data sets (14km<sup>2</sup> drone mag survey over the Orient area plus 7.18 line km of a dipole-dipole Induced Polarisation survey)
- Great Northern Mining Corporation (GNMC) completed 16 diamond drill holes at Orient West in the 1970s. Drilling did not delineate the margins of mineralisation, leaving it open to extension in all directions. GNMC undertook limited assay of the drill samples (core and percussion) with a focus on the high grade vein system. Extensive low grade mineralisation was logged, usually forming halos around the higher grade veins but this was not assayed. The assay data was not used in the Exploration Target estimation process (due to lack of certainty of the data), and the geological data was used in the wireframing process.

### **2. Methodology to Determine the Grade and Tonnage Range for the Exploration Target**

Iltni engaged Mining One Consultants to build a 3D model of the Orient System (Orient West and East) to better understand the size and scale of the mineralised vein systems, allowing Iltni to optimise drill hole design. This model has been continually updated as drilling has been completed and was used as the basis for estimating the Exploration Target.

Mineralised intercepts in downhole drilling align from section to section along structures that can be assumed to be continuous between drillholes. Mineralised zones broadly pinch and swell but can be linked together across drilled sections. Some areas of interpretation, especially regarding thin and lower grade lenses, should be considered initial and linkages between drillholes may change with further information, however the current interpretation holds true with concurrent surface geological observations and areas of denser drilling.

Apart from drilling, strike extents of the exploration model are also based on soil anomalism above the mineralised veins and the extent of historic workings which have been rock chip sampled. Mineralisation extends 2.6km from SW to NE and dips approximately 55° → 150°. The stacked system ranges from 270 – 330m in thickness from the footwall of the northern-most structure to the hanging wall in the south. The 13 modelled mineral domains (sulphide veins) range from 2 – 55 m in thickness.

Assays were composited in each domain to 1m which is the nominal assay interval. Domains were snapped to assay intervals and Ag, Pb, Zn & In were estimated from the composites constrained by each domain using hard boundaries and using inverse distance squared (ID<sup>2</sup>) estimation in four passes.

Search ellipsoids were oriented according to the mineralised trend 55° → 150° or 153°. The Block Model has parent blocks 20m x 20m x 10m. It is sub-blocked using an octree method 8 x 8 x 16 resulting



in sub-blocks as small as 2.5 m x 2.5m x 0.625m to honour the vein geometry even as they pinch out or splay against each other.

Drilling intersects the mineralised structures at 60m intervals in the area of closest drilling. Grades were not capped. The highest grades are in the core of the deposit where the estimate uses up to 50 samples to estimate grade. High grades including outliers will impact local grades in the core of the deposit but will have very little influence on blocks away from drilling.

Global approximated exploration target figures were generated using a 30 g/t Ag equivalent cut off and the high-grade core target figures were approximated using an 80 g/t Ag equivalent cut off.

An assumed density of 2.7 g/cc was applied to determine the tonnes. Density vs sulphide content was inspected at other multi-commodity deposits to understand the effect of similar grades to density. At similar average grades to Orient, the result is negligible. Some high sulphide zones likely have a higher density however, the volume of this material is very low and deemed negligible for consideration in the current study.

The Exploration Target Estimation for Orient West has utilised the more rigorous methodology that is generally utilised for Mineral Resource Estimation without a more constrained statistical approach required for the latter. This is to ensure the Exploration Target Estimation result is meaningful and, with further drilling, will be used as a basis for a Mineral Resource Estimate.

### **3. Progress Towards a Mineral Resource Estimate**

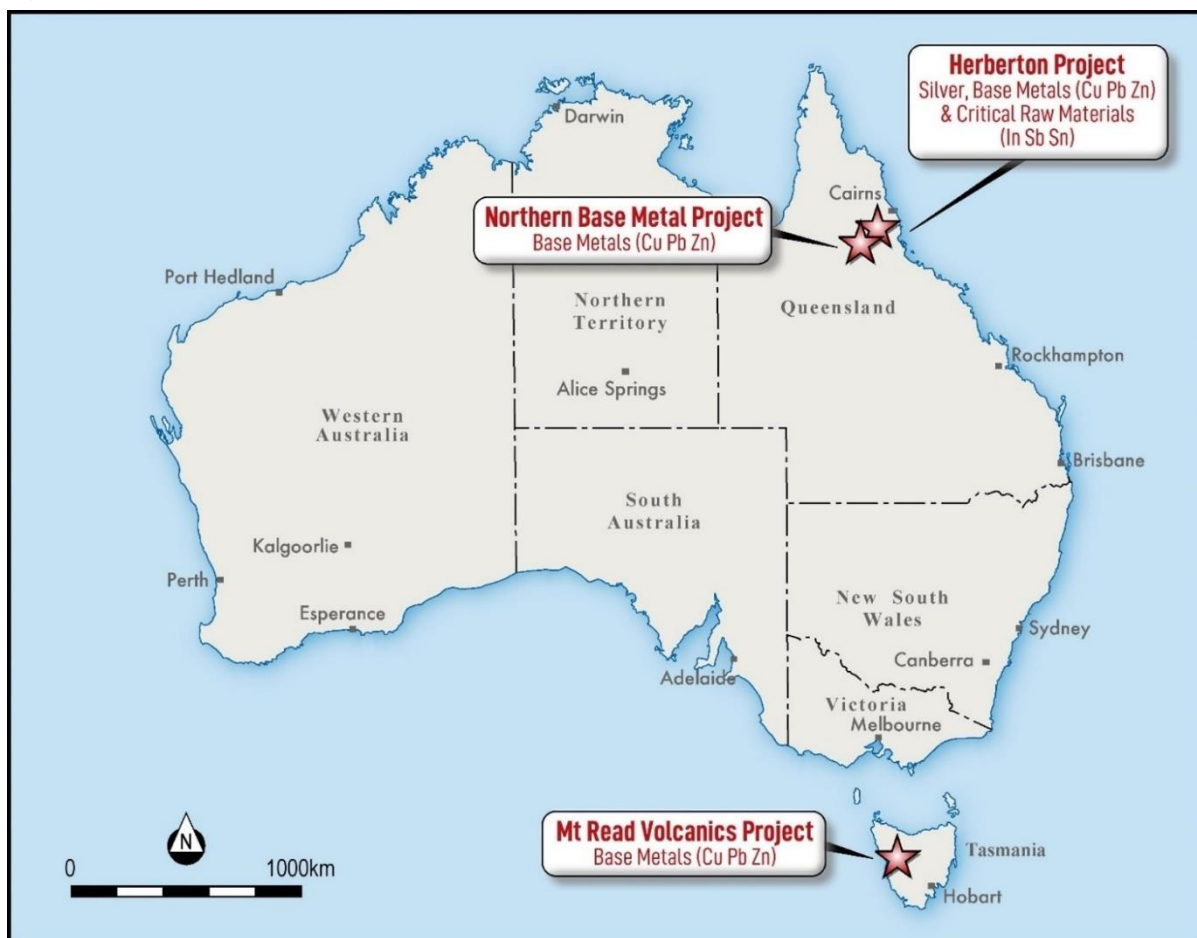
Proposed exploration activities designed to progress the Orient West Exploration Target to a Mineral Resource Estimate will consist of the following and is planned to take place over the next 6 to 12 months.

### About Iltani Resources

Iltani Resources (ASX: ILT) is an ASX listed company focused on exploring for and developing the precious metals and base metals projects to deliver the metals and critical minerals required to create a low emission future. It has built a portfolio of advanced exploration projects in Queensland and Tasmania with multiple high quality, drill-ready targets. Iltani has completed drilling at the Orient Silver-Indium Project, part of its Herberton Project, in Northern Queensland. The drilling has returned outstanding intercepts of silver-lead-zinc-indium mineralisation, positioning Orient as Australia's most exciting silver-indium discovery.

Other projects include the Northern Base Metal Project in Northern Queensland plus the Mt Read Volcanics Project in Tasmania.

Figure 8 Location of Iltani Resources' projects in Queensland and Tasmania



**JORC Code, 2012 Edition – Table 1 (Iltani Drilling)**
**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>Nature and quality of sampling (e.g. 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 (e.g. ‘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 (e.g. submarine nodules) may warrant disclosure of detailed information.</li> </ul>	<ul style="list-style-type: none"> <li>No new drilling is reported in this release.</li> <li>Iltani Resources completed 35 RC holes for 5,154m at Orient East. The drilling was completed by Dubbo, NSW based drilling contractors Durock Drilling Pty Ltd and Charters Towers, Qld based drilling contractors Eagle Drilling Pty Ltd.</li> <li>RC drilling returned samples through a fully enclosed cyclone system, then via a remote controlled gate into a cone splitter. 1m RC samples were homogenised and collected by a static cone splitter to produce a representative 3-5kg sub sample.</li> <li>For initial holes a portable pXRF analyser was used to confirm the mineralised intervals, and any sample &gt; 2000ppm Pb + Zn was selected for assay. For later holes, sampling comprised 4m composite samples or, where visual mineralisation is encountered, 1m increment RC sub-samples, that were bagged and sent to Australian Laboratory Services Pty Ltd (ALS) in Townsville for preparation and analysis.</li> <li>Preparation consisted of drying of the sample and the entire sample being crushed to 70% passing 6mm and pulverised to 85% passing 75 microns in a ring and puck pulveriser.</li> <li>Analysis consisted of four acid digest with Inductively Coupled Plasma Mass Spectrometry (ICP-MS) (ME-MS61) analysis for the following elements: Ag, Al, As, Ba, Be, Bi, Ca, Cd, Ce, Co, Cr, Cs, Cu, Fe, Ga, Ge, Hf, In, K, La, Li, Mg, Mn, Mo, Na, Nb, Ni, P, Pb, Rb, Re, S, Sb, Sc, Se, Sn, Sr, Ta, Te, Th, Ti, Tl, U, V, W, Y, Zn, Zr.</li> <li>Ore grade sample analysis consisted of four acid digest with Inductively Coupled Plasma Atomic Emission Spectroscopy (ICP-AES) finish. This was carried out for Ag, Pb, Zn, Sn &amp; In.</li> <li>Indium over limit sample analysis was carried out using Inductively Coupled Plasma Mass Spectrometry (ICP-MS) (ME-MS61) (In-ICP61) at ALS Vancouver facility in Canada</li> </ul>
Drilling techniques	<ul style="list-style-type: none"> <li>Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (e.g. 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 style="list-style-type: none"> <li>The drilling was completed using a truck mounted RC rigs utilising 6m rods with reverse circulation capability.</li> <li>Drilling diameter was 6.5 inch RC hammer using a face sampling bit.</li> <li>RC hole length ranged from 18m to 256m with average hole length of 143m at Orient East.</li> <li>Downhole surveys were undertaken at nominal 30m intervals during drilling utilising a either digitally controlled IMDEX Gyro instrument.</li> </ul>
Drill sample recovery	<ul style="list-style-type: none"> <li>Method of recording and assessing core and chip sample recoveries</li> </ul>	<ul style="list-style-type: none"> <li>All samples were weighted and weights recorder in the logging sheet. Samples with no recovery or very</li> </ul>



Criteria	JORC Code explanation	Commentary
	<p>and results assessed.</p> <ul style="list-style-type: none"> <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 preferential loss/gain of fine/coarse material.</li> </ul>	<p>low recoveries were recorded also in the logging sheet. A few samples were collected wet due to rig unable to keep the hole dry. Wet samples were noted in the logging sheet.</p> <ul style="list-style-type: none"> <li>Itani personnel and the drilling crew monitor sample recovery, size and moisture, making appropriate adjustments as required to maintain quality.</li> <li>A cone splitter is mounted beneath the cyclone to ensure representative samples are collected.</li> <li>The cyclone and cone splitter were cleaned with compressed air necessary to minimise contamination.</li> <li>No significant contamination or bias has been noted in the current drilling.</li> </ul>
Logging	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>Geological logging was carried out on RC chips by suitably qualified geologists. Lithology, veining, alteration, mineralisation and weathering are recorded in the geology table of the drill hole database. Final and detailed geological logs were forwarded from the field following sampling.</li> <li>Geological logging of the RC samples is qualitative and descriptive in nature.</li> <li>Observations were recorded appropriate to the sample type based on visual field estimates of sulphide content and sulphide mineral species.</li> <li>During the logging process Itani retained representative samples (stored in chip trays) for future reference. All RC chip trays are photographed and the images electronically stored.</li> <li>All drill holes are logged to the end of hole (EoH).</li> </ul>
Sub-sampling techniques and sample preparation	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>1m increment samples were collected off the drill rig via cyclone - cone splitter into calico bags with a respective weight between 3-5kg.</li> <li>The onsite geologist selects the mineralised interval from logging of washed RC chips, based on identification of either rock alteration and/or visual sulphides.</li> <li>For initial holes' a portable pXRF analyser was used to confirm the mineralised intervals, and any sample &gt; 2000ppm Pb + Zn was selected for assay. For later drilling, the geologist determined suitable sulphide content to despatch 1m samples, otherwise 4m composite samples were despatched.</li> <li>Industry standard sample preparation is conducted under controlled conditions within the laboratory and is considered appropriate for the sample types.</li> <li>QAQC samples (standards, blanks and field duplicates) were submitted at a frequency of at least 1 in 20. Regular reviews of the sampling were carried out by Itani Geologist to ensure all procedures and best industry practice were followed.</li> <li>Sample sizes and preparation techniques are considered appropriate for the nature of mineralisation.</li> </ul>



Criteria	JORC Code explanation	Commentary
Quality of assay data and laboratory tests	<ul style="list-style-type: none"> <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 (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.</li> </ul>	<ul style="list-style-type: none"> <li>Industry standard assay techniques were used to assay for silver and base metal mineralisation (ICP for multi-elements with a four-acid digest)</li> <li>No geophysical tools, spectrometers or handheld XRF instruments have been used to determine assay results for any elements.</li> <li>Monitoring of results of blanks, duplicates and standards (inserted at a minimum rate of 1:20) is conducted regularly. QAQC data is reviewed for bias prior to uploading results in the database.</li> </ul>
Verification of sampling and assaying	<ul style="list-style-type: none"> <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 verification, data storage (physical and electronic) protocols.</li> <li>Discuss any adjustment to assay data.</li> </ul>	<ul style="list-style-type: none"> <li>No drill holes were twinned.</li> <li>Primary data is collected in the field via laptops in a self-validating data entry form; data verification and storage are accomplished by Itani contractor and staff personnel.</li> <li>All drillhole data was compiled in Excel worksheets and imported into Micromine in order to query 3D data and generate drill plans and cross sections.</li> </ul>
Location of data points	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>Drill hole collar locations are initially set out using a hand held GPS.</li> <li>Downhole surveys completed at nominal 30m intervals by driller using a digitally controlled IMDEX Gyro instrument.</li> <li>All exploration works are conducted in the GDA94 zone 55 grid.</li> <li>Topographic control is based on airborne geophysical survey and it is considered adequate.</li> </ul>
Data spacing and distribution	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>Drilling was targeted on selected veins and areas of potential stockwork mineralisation.</li> <li>Drill hole spacing is not adequate to report geological or grade continuity.</li> <li>No sample compositing has been applied.</li> </ul>



Criteria	JORC Code explanation	Commentary
Orientation of data in relation to geological structure	<ul style="list-style-type: none"> <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>	<ul style="list-style-type: none"> <li>The drill holes were orientated in order to intersect the interpreted mineralisation zones as perpendicular as possible based on information to date.</li> <li>Due to locally varying intersection angles between drillholes and lithological units all results will be defined as downhole widths.</li> <li>No drilling orientation and sampling bias has been recognised at this time and it is not considered to have introduced a sampling bias.</li> </ul>
Sample security	<ul style="list-style-type: none"> <li>The measures taken to ensure sample security.</li> </ul>	<ul style="list-style-type: none"> <li>Samples were stored in sealed polyweave bags at the drill rig then put on a pallet and transported to ALS Townsville by using a freight carrying company.</li> </ul>
Audits or reviews	<ul style="list-style-type: none"> <li>The results of any audits or reviews of sampling techniques and data.</li> </ul>	<ul style="list-style-type: none"> <li>No audits or reviews have been carried out at this point</li> </ul>


**Section 2 Reporting of Exploration Results**

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

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>The drill program was conducted on EPM27223.</li> <li>EPM27223 is wholly owned by Iltani Resources Limited</li> <li>All leases/tenements are in good standing</li> </ul>
Exploration done by other parties	<ul style="list-style-type: none"> <li>Acknowledgment and appraisal of exploration by other parties.</li> </ul>	<ul style="list-style-type: none"> <li>Exploration activities have been carried out (underground mapping, diamond drilling, surface geochemical surveys and surface mapping, pre-feasibility study) by Great Northern Mining Corporation and Mareeba Mining and Exploration over the West and East Orient areas from 1978 to 1989.</li> <li>Exploration activities have been carried out (soils and rock chip sampling) around Orient West and East by Monto Minerals Limited from 2014 to 2017</li> <li>Red River Resources carried out mapping, sampling and geophysical exploration (drone mag survey and IP survey) in 2020 and 2021.</li> </ul>
Geology	<ul style="list-style-type: none"> <li>Deposit type, geological setting and style of mineralisation.</li> </ul>	<ul style="list-style-type: none"> <li>Mineralisation occurs in vein systems up to 2m wide (controlled by fractures/shears) containing argentiferous galena, cerussite, anglesite, sphalerite, pyrite, marmatite, cassiterite (minor), and stannite (minor).</li> <li>The lead-zinc-silver-indium mineralisation at Orient is believed to represent part of an epithermal precious metals system. The Orient vein and stockwork mineralisation are associated with a strongly faulted and deeply fractured zone near the margin of a major caldera subsidence structure</li> </ul>
Drill hole Information	<ul style="list-style-type: none"> <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, including, easting and northing, elevation or RL, dip and azimuth, down hole length, interception depth and hole length.</li> <li>If the exclusion of this information is justified the Competent Person should clearly explain why this is the case.</li> </ul>	<ul style="list-style-type: none"> <li>Iltani Resources has completed 22 RC (Reverse Circulation) drill holes for 4,406m drilled at Orient West and 10 RC drill holes for 1,098m drilled at Orient East.</li> <li>No new drilling was reported in this release</li> </ul>



Criteria	JORC Code explanation	Commentary															
Data aggregation methods	<ul style="list-style-type: none"> <li>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. 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>	<ul style="list-style-type: none"> <li>No data aggregation methods have been used.</li> <li>Metal equivalents are used (silver equivalent)</li> <li>The equivalent silver formula is <math>Ag\ Eq. = Ag + (Pb \times 35.5) + (Zn \times 50.2) + (In \times 0.47)</math></li> </ul> <p>Metal Equivalent Calculation - Recoveries and Commodity Prices</p> <table border="1"> <thead> <tr> <th>Metal</th><th>Price/Unit</th><th>Recovery</th></tr> </thead> <tbody> <tr> <td>Silver</td><td>US\$20/oz</td><td>87%</td></tr> <tr> <td>Lead</td><td>US\$1.00/lb</td><td>90%</td></tr> <tr> <td>Zinc</td><td>US\$1.50/lb</td><td>85%</td></tr> <tr> <td>Indium</td><td>US\$300/kg</td><td>85%</td></tr> </tbody> </table> <ul style="list-style-type: none"> <li>It is Iltani's opinion that all the elements included in the metal equivalents calculation have a reasonable potential to be recovered and sold.</li> </ul>	Metal	Price/Unit	Recovery	Silver	US\$20/oz	87%	Lead	US\$1.00/lb	90%	Zinc	US\$1.50/lb	85%	Indium	US\$300/kg	85%
Metal	Price/Unit	Recovery															
Silver	US\$20/oz	87%															
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Indium	US\$300/kg	85%															
Relationship between mineralisation widths and intercept lengths	<ul style="list-style-type: none"> <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> <li>If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g. 'down hole length, true width not known').</li> </ul>	<ul style="list-style-type: none"> <li>Drilling is generally perpendicular to the structure by angled RC at 50° to 65° into structures dipping between 30° and 80°.</li> </ul>															
Diagrams	<ul style="list-style-type: none"> <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 plans and sections.</li> </ul>	<ul style="list-style-type: none"> <li>Refer to plans and sections within report</li> </ul>															
Balanced reporting	<ul style="list-style-type: none"> <li>Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.</li> </ul>	<ul style="list-style-type: none"> <li>The accompanying document is considered to represent a balanced report</li> </ul>															
Other substantive exploration data	<ul style="list-style-type: none"> <li>Other exploration data, if meaningful and material, should be reported.</li> </ul>	<ul style="list-style-type: none"> <li>All meaningful and material data is reported</li> </ul>															
Further work	<ul style="list-style-type: none"> <li>The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).</li> </ul>	<ul style="list-style-type: none"> <li>Exploration of the target area is ongoing. Iltani plans to follow up on the positive drilling results with further field work including mapping and rock chip/soil sampling and drilling is planned</li> </ul>															


**Section 3: Estimation and Reporting of Mineral Resources**

Criteria	JORC Code explanation	Commentary
<b>Database integrity</b>	<ul style="list-style-type: none"> <li>Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes.</li> <li>Data validation procedures used.</li> </ul>	<ul style="list-style-type: none"> <li>Database was reviewed by Iltani Resources and supplied to Mining One to use as the basis for the Exploration Target assessment. No material errors were defined within the data supplied.</li> </ul>
<b>Site visits</b>	<ul style="list-style-type: none"> <li>Comment on any site visits undertaken by the Competent Person and the outcome of those visits.</li> <li>If no site visits have been undertaken indicate why this is the case.</li> </ul>	<ul style="list-style-type: none"> <li>No site visit was undertaken by the Competent Person</li> <li>A previous site visit was undertaken by Mining One personnel as part of the preparation of the Independent Experts Report for the Iltani Initial Public Offering which took place in June 2023</li> </ul>
<b>Geological interpretation</b>	<ul style="list-style-type: none"> <li>Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.</li> <li>Nature of the data used and of any assumptions made.</li> <li>The effect, if any, of alternative interpretations on Mineral Resource estimation.</li> <li>The use of geology in guiding and controlling Mineral Resource estimation.</li> <li>The factors affecting continuity both of grade and geology.</li> </ul>	<ul style="list-style-type: none"> <li>Mineralised intercepts in downhole drilling align from section to section along structures that can be assumed to be continuous between drilling.</li> <li>Mineralised zones broadly pinch and swell but can confidently be linked together across drilled sections.</li> </ul>
<b>Dimensions</b>	<ul style="list-style-type: none"> <li>The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource.</li> </ul>	<ul style="list-style-type: none"> <li>The strike length of the exploration model is based on the soil anomalism above the mineralised veins and the presence of historic workings. The total model extends 1300m from E to W and 1100m north to south in several domains.</li> <li>Width of the exploration model varies depending on the various mineral domains, with the larger domain extending 250m in plan view. The deepest domain extends to 270m below surface.</li> <li>The modelled mineral domains range from 2 – 30 m in thickness</li> </ul>



Criteria	JORC Code explanation	Commentary																				
Estimation and modelling techniques	<ul style="list-style-type: none"><li>The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software and parameters used.</li><li>The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.</li><li>The assumptions made regarding recovery of by-products.</li><li>Estimation of deleterious elements or other non-grade variables of economic significance (e.g. sulphur for acid mine drainage characterisation).</li><li>In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.</li><li>Any assumptions behind modelling of selective mining units.</li><li>Any assumptions about correlation between variables.</li><li>Description of how the geological interpretation was used to control the resource estimates.</li><li>Discussion of basis for using or not using grade cutting or capping.</li><li>The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.</li></ul>	<ul style="list-style-type: none"><li>Assays were composited in each domain to 1m which is the nominal assay interval.</li><li>Domains were snapped to assay intervals,</li><li>Ag, Pb, Zn &amp; In were estimated from the composites in each domain using hard boundaries using inverse distance squared (ID2) estimation in four passes according to the parameters below<table><tr><td>Pass</td><td>radius</td><td>min</td><td>Max</td></tr><tr><td>1</td><td>60</td><td>10</td><td>50</td></tr><tr><td>2</td><td>120</td><td>8</td><td>40</td></tr><tr><td>3</td><td>200</td><td>2</td><td>15</td></tr><tr><td>4</td><td>900</td><td>2</td><td>10</td></tr></table></li><li>Search ellipsoids were oriented according to the mineralised trend orientation, either 30°-50° to 270° or 80° to 270°.</li><li>Ag Eq. was estimated on a block-by-block basis using the formula <math>Ag\ Eq. = Ag\ (ppm) + Pb\ (\%) \times 35.5 + Zn\ (\%) \times 50.2 + In\ (ppm) \times 0.47</math></li><li>The Block Model has parent blocks 20m x 20m x 10m. It is sub-blocked using an octree method 8 x 8 x 16 resulting in sub-blocks as small as 2.5 m x 2.5m x 0.625m to honour the vein geometry even as they pinch out or splay against each other.</li><li>Drilling intersects the mineralised structures at 40m intervals in the area of closest drilling.</li><li>Grades were not capped. The highest grades are in the core of the deposit where the estimate uses up to 50 samples to estimate grade. High grades including outliers will impact local grades in the core of the deposit but will have very little influence on blocks away from drilling.</li></ul>	Pass	radius	min	Max	1	60	10	50	2	120	8	40	3	200	2	15	4	900	2	10
Pass	radius	min	Max																			
1	60	10	50																			
2	120	8	40																			
3	200	2	15																			
4	900	2	10																			
Moisture	<ul style="list-style-type: none"><li>Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.</li></ul>	<ul style="list-style-type: none"><li>Not applicable for an Exploration Target</li></ul>																				
Cut-off parameters	<ul style="list-style-type: none"><li>The basis of the adopted cut-off grade(s) or quality parameters applied.</li></ul>	<ul style="list-style-type: none"><li>Exploration Target was estimated at a 30 g/t Ag Eq. cut-off grade (Global Exploration Target) and an 80 g/t Ag Eq. cut-off grade (High Grade Exploration Target) with a higher-grade component at both 200 g/t Ag Eq. and 300g/t Ag Eq. cut-off grades.</li></ul>																				



Criteria	JORC Code explanation	Commentary
<b>Mining factors or assumptions</b>	<ul style="list-style-type: none"> <li>Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential mining methods, but the assumptions made regarding mining methods and parameters when estimating Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the mining assumptions made.</li> </ul>	<ul style="list-style-type: none"> <li>Not applicable for an Exploration Target</li> </ul>
<b>Metallurgical factors or assumptions</b>	<ul style="list-style-type: none"> <li>The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential metallurgical methods, but the assumptions regarding metallurgical treatment processes and parameters made when reporting Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made.</li> </ul>	<ul style="list-style-type: none"> <li>Not applicable for an Exploration Target</li> </ul>
<b>Environmental factors or assumptions</b>	<ul style="list-style-type: none"> <li>Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation. While at this stage the determination of potential environmental impacts, particularly for a green fields project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made.</li> </ul>	<ul style="list-style-type: none"> <li>Not applicable for an Exploration Target</li> </ul>



Criteria	JORC Code explanation	Commentary
<b>Bulk density</b>	<ul style="list-style-type: none"> <li>Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size and representativeness of the samples.</li> <li>The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vugs, porosity, etc), moisture and differences between rock and alteration zones within the deposit.</li> <li>Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.</li> </ul>	<ul style="list-style-type: none"> <li>An assumed density of 2.9 g/cc was applied to determine the in situ dry tonnes.</li> </ul>
<b>Classification</b>	<ul style="list-style-type: none"> <li>The basis for the classification of the Mineral Resources into varying confidence categories.</li> <li>Whether appropriate account has been taken of all relevant factors (i.e. relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data).</li> <li>Whether the result appropriately reflects the Competent Person's view of the deposit.</li> </ul>	<ul style="list-style-type: none"> <li>The conceptual target is at an exploration target stage and is therefore not classified.</li> </ul>
<b>Audits or reviews</b>	<ul style="list-style-type: none"> <li>The results of any audits or reviews of Mineral Resource estimates.</li> </ul>	<ul style="list-style-type: none"> <li>Not applicable for an Exploration Target</li> </ul>
<b>Discussion of relative accuracy/ confidence</b>	<ul style="list-style-type: none"> <li>Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could affect the relative accuracy and confidence of the estimate.</li> <li>The statement should specify</li> </ul>	<ul style="list-style-type: none"> <li>Not applicable for an Exploration Target</li> </ul>



Criteria	JORC Code explanation	Commentary
	<p>whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used.</p> <ul style="list-style-type: none"> <li>• These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.</li> </ul>	