

23 April 2025

Iltani commences diamond drilling at the Orient Silver-Indium Deposit, QLD

Silver and base metals explorer **Iltani Resources** (ASX: ILT, “Iltani” or “the Company”) is pleased to announce the start of diamond drilling at Orient, Australia’s largest known silver-indium deposit, located in northern Queensland.

HIGHLIGHTS:

- Diamond drill rig has mobilised to Orient and commenced drilling at Orient West on 17 April
- Diamond drill rig will complete two drill holes at Orient West (for 455m drilled) followed by two drill holes at Orient East (for 450m drilled)
- Data generated from diamond drilling will be used by independent mining consultant Mining One as part of the modelling and estimation of the initial JORC Resources for Orient West & East.
- Diamond drilling program is expected to take 4 weeks to complete. To date, the diamond drill rig has completed approximately 210m of the first hole at Orient West
- Reverse circulation (RC) drilling is also underway at Orient West with nine holes completed as Iltani accelerates Orient exploration – first assay results from RC drilling are expected shortly

Figure 1 Diamond drill rig at Orient West





Iltani Managing Director Donald Garner commented: *"It is good to get the diamond drilling program at Orient underway.*

To date, we have only completed one diamond hole at Orient, a Queensland government-funded deep diamond hole in mid-2024. This hole was collared outside of the high-grade zone at Orient West, so we didn't get to see the high-grade mineralisation in core – this new program will target the high-grade mineralisation at Orient West and East.

We are planning to drill two holes for 455m at Orient West and two holes for 450m at Orient East. The drill core will be orientated to generate structural and assay data for the JORC Resource modelling and estimation process plus generate specific gravity (SG) data on the mineralisation types present.

The drill core will also provide important data on the alteration, mineralogy and timing of the mineralisation at Orient West and East, enabling us to better target our exploration activities at Orient going forward.

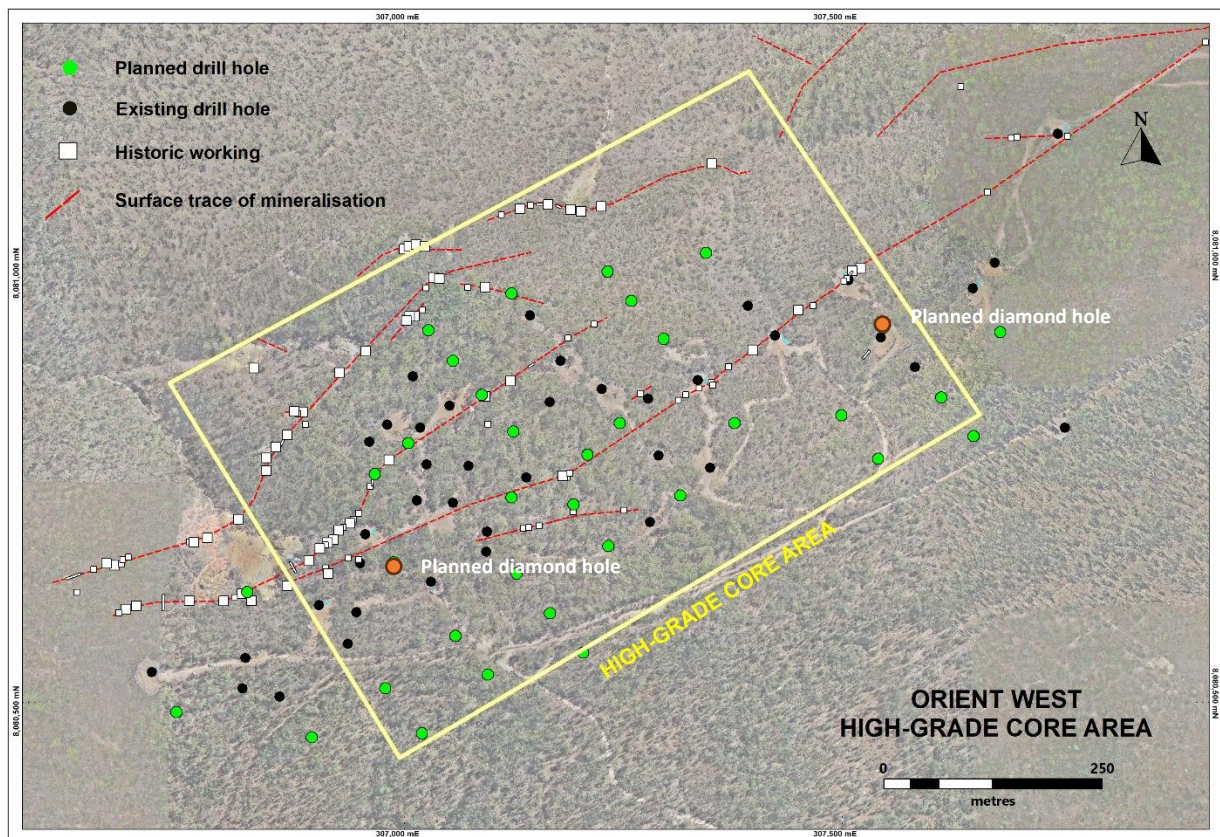
The drilling is expected to take around four weeks to complete, and we will keep the market updated as to progress."

1. Orient Diamond Drilling Program

The Orient diamond drilling program is planned to consist of four diamond drill holes (for an estimated 905 metres drilled) with two diamond holes (for an estimated 455m drilled) to be completed at Orient West East (refer to Figure 2) and two diamond holes (for an estimated 450m drilled) to be completed at Orient East.

The core holes will be orientated and be NQ2 diameter at Orient West and HQ3 diameter at Orient East (refer to Glossary at end of the release).

Figure 2 Orient West Diamond Drill Hole Collar Locations



The objectives of the diamond drilling program are as follows:

- Provide information as to the various styles of mineralisation (massive, disseminated, veined) and associated metal grades;
- Provide core for oriented structural data to determine vein orientations;
- Provide samples of the various mineralisation types to determine specific gravities; and
- Provide samples for metallurgical testwork when required.

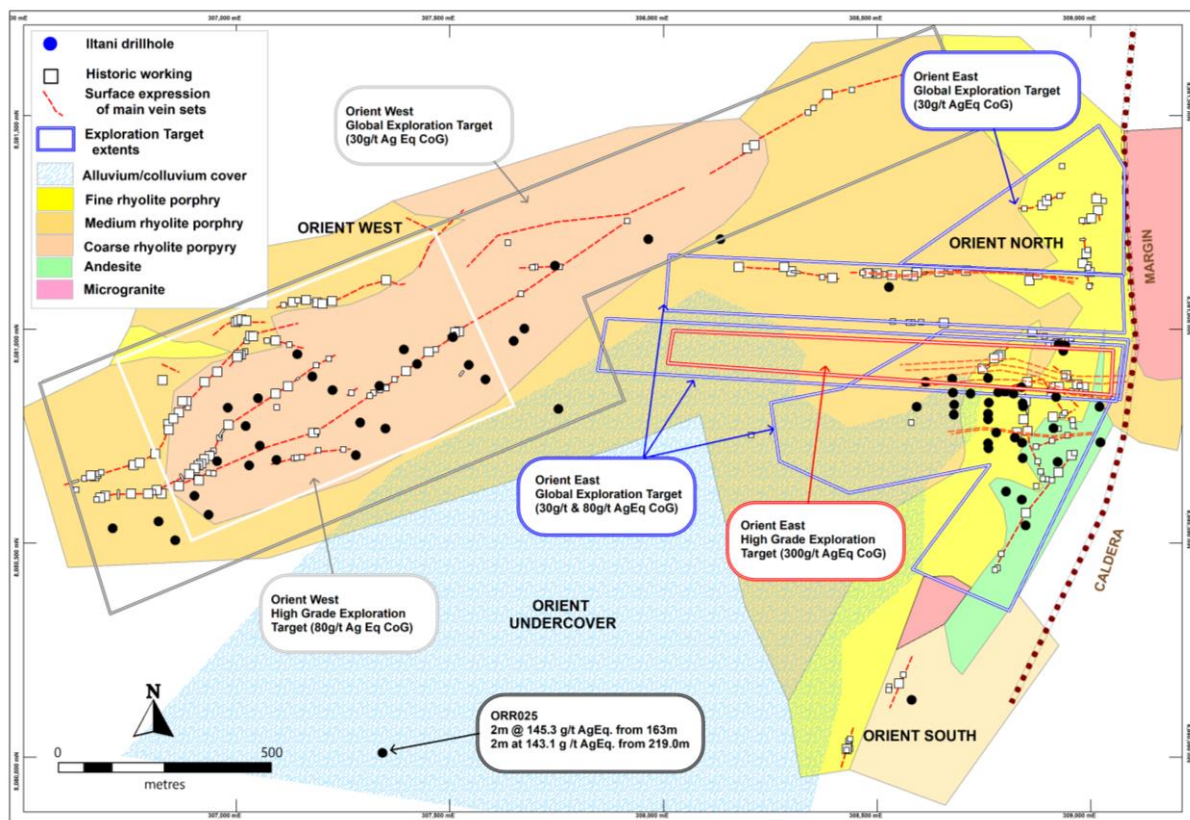
The overall outcome will be to advance the geological knowledge of the Orient West and Orient East mineralisation systems by determining lithological, structural and mineralisation characteristics, and similarities and differences between the two areas. This information will be important not just for better defining the geology for the Resource infill program but also defining the mineralisation style for future exploration work in the Orient region.

2. Orient Infill Drilling Program

The Orient West infill drilling program plans to consist of 28 RC holes (for an estimated 7,000 metres drilled, which is currently underway) and two diamond holes (for an estimated 455m drilled), aiming to convert the current high-grade Orient West Exploration Target (**20 to 24Mt @ 110 – 120 g/t Ag Eq.**, 80 g/t Ag Eq. cut-off grade) to an initial JORC Inferred Mineral Resource.

The Orient East infill drilling program plans to consist of 26 RC holes (for an estimated 5,200 metres drilled) and two diamond drill holes (for an estimated 450m drilled), aiming to convert the current high-grade Orient East Exploration Target (**12 to 18 Mt @ 110 – 130 g/t Ag Eq.**, 80 g/t Ag Eq. cut-off grade) to an initial JORC Inferred Mineral Resource.

Figure 3 Orient Project



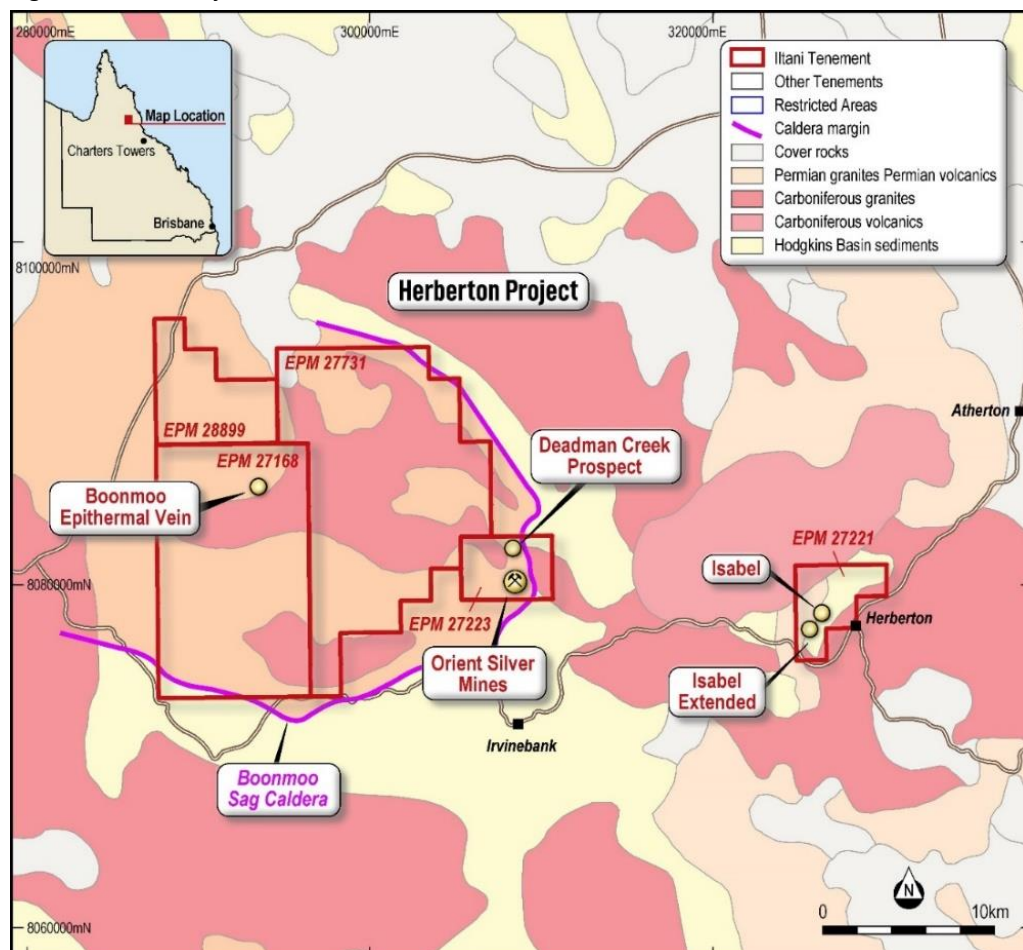
The potential quantity and grade of the Exploration Target is conceptual in nature. There has been insufficient exploration to estimate a Mineral Resource and it is uncertain if further exploration will result in the estimation of a Mineral Resource. The Exploration Target has been prepared in accordance 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 24 February 2025 (Iltani Defines Orient East 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.

3. Orient Project Overview

The Orient project is located on Iltani's wholly owned tenement EPM 27223, approximately 20km west of the historic mining town of Herberton and 9km north of Irvinebank (Figure 4) in Northern Queensland. Access is via the Herberton-Petford Road and then the Hales Siding Road.

Figure 4 Orient Project Location



Authorisation

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

Contact Details

For further information, please contact:

Donald Garner
Managing Director
Iltani Resources Limited
+61 438 338 496
dgarner@iltaniresources.com.au

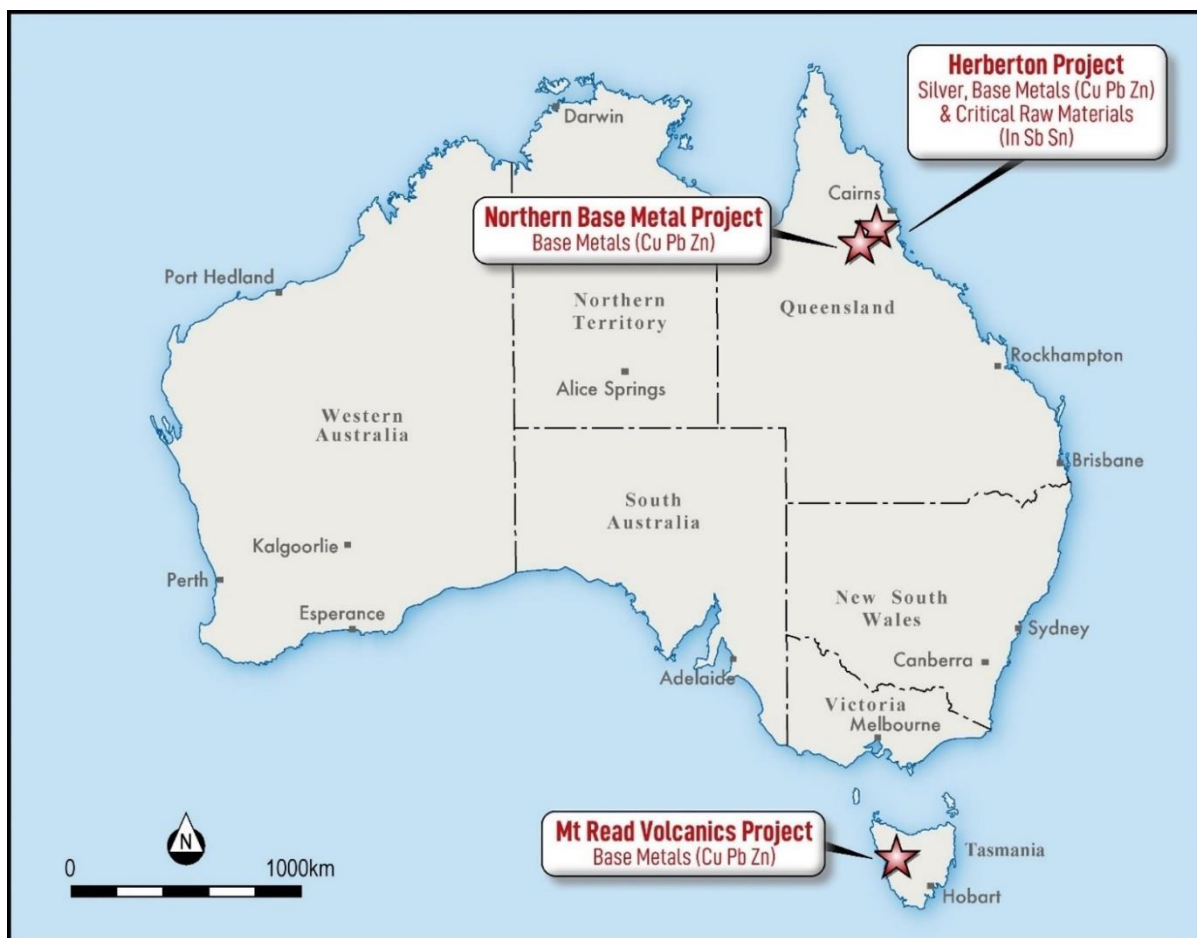
Nathan Ryan
Investor Relations
NWR Communications
+61 420 582 887
nathan.ryan@nwrcommunications.com.au

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 5 Location of Iltani Resources' projects in Queensland and Tasmania





Glossary

Core Orientation is the process by which a mark is made on the in situ rock at the start of each drill run. The mark generally indicates the bottom of the core. This mark is then joined between core runs with a solid line (orientation line) for the length of the core for the hole. The orientation line is used as a reference to measure structures in the core. The location of the core in the ground can be determined using corresponding down hole survey measurements, hence the measured structures are accurate in 3D space.

NQ2 Diameter Diamond Core is 50.6mm diameter core (actual hole diameter drilled is 75.7mm).

HQ3 Diameter Diamond Core is 61.1mm diameter (actual hole diameter drilled is 96.6mm). Iltani is drilling HQ3 diamond holes at Orient East as we believe the ground conditions may be more complex than Orient East. HQ3 indicates that the drilling technique utilises a third tube called an inner-tube liner or split tube. This system enables integral core recovery when drilling coal, clay bearing or highly fractured formations. The liner, or split tube, retains the core sample in its received state for easier loading into sample trays or for storage and subsequent presentation to the geologist.



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.


Orient Exploration Targets

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
Tonnes Range	Mt	25	35	Tonnes Range	Mt	12	18
Ag Eq.	g/t	77	95	Ag Eq.	g/t	110	130
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

Table 2 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
Tonnes Range	Mt	74	100	Tonnes Range	Mt	20	24
Ag Eq.	g/t	55	65	Ag Eq.	g/t	110	120
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 3 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
Tonnes Range	Mt	99	135	Tonnes Range	Mt	32	42
Ag Eq.	g/t	61	73	Ag Eq.	g/t	110	124
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


Metallurgical Equivalent Calculation – Additional Disclosure

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

Table 4 Metal Equivalent Calculation - Recoveries and Commodity Prices

Metal	Price/Unit	Recovery
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, which 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 (14km² 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 (ID²) 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 an infill drilling program and is planned to take place over the next 6 to 12 months.



Orient East Exploration Target – Additional Disclosure

1. 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 (14km² 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.

2. 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 1,200m north-south by 1,300m 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 (ID2) 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 domained 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.

3. 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 infill drilling and is planned to take place over the next six to twelve months