



Orion Minerals

ASX/JSE RELEASE: 3 February 2020

Encouraging drilling results received from the IGO-ORN Joint Venture Tenements – Fraser Range, Australia

- ▶ **Mafic-ultramafic intrusive rocks intersected in highly prospective settings in all five diamond holes drilled at the North West Passage and Pike Nickel-Copper prospects.**
- ▶ **Injected sulphide veins characteristic of magmatic sulphide nickel-copper systems observed in drill core from the North West Passage.**
- ▶ **Mafic-ultramafic bodies intersected at Hook 1, located 16km north-east of Legend Mining's recently announced massive sulphide nickel-copper discovery.**
- ▶ **Strong untested off-hole conductor at Hook 1 offers a compelling drill target.**
- ▶ **Additional drilling planned for the 2020 field season.**

Orion's Managing Director and CEO, Errol Smart, commented:

"We are very encouraged by the progress being made by IGO in their ongoing exploration of our Fraser Range joint venture tenements in WA. The results from the drilling completed towards the end of last year provide further strong indications that we are in the right place to discover a large magmatic nickel-copper sulphide system – with all five diamond holes intersecting mafic-ultramafic intrusive bodies.

"We have long held the view that the Fraser Range would yield further significant discoveries outside of the Nova-Bollinger deposit – a belief that first led us to secure these tenements several years ago. With exploration attention once again focusing on the belt following the recently reported massive sulphide discovery by Legend Mining, just 16km from our Hook 1 prospect, we are looking forward to the next phase of drilling planned by IGO this field season."

Orion Minerals Limited (**ASX/JSE: ORN**) (**Orion** or the **Company**) is pleased to announce encouraging diamond drill results received from the IGO Limited (**IGO**) IGO-ORN joint venture (**JV**) on the North West Passage, Hook 1 and 2 and Pike prospects, located within the Fraser Range Belt (Figure 1) (refer ASX release 10 March 2017).

Drilling completed towards the end of 2019 tested several moving-loop electromagnetic (**MLEM**) conductors, anomalous basement geochemical anomalies and magnetic features on magmatic nickel-copper targets, as well as a Volcanogenic Massive Sulphide (VMS) copper-zinc target at Pike (refer ASX release 31 October 2019).

Orion is very encouraged by the results received from this drilling, with all five diamond holes completed intersecting mafic-ultramafic intrusive bodies.

Orion considers the presence of anastomosing sulphide veins, sulphide-bearing graphite-rich horizons and meta-carbonates as intersected in the host rocks to the mafic-ultramafic bodies to be the ideal setting for the discovery of magmatic massive nickel-copper sulphide deposits.

Further information on the prospects tested, and the drilling results received to date, is provided below.

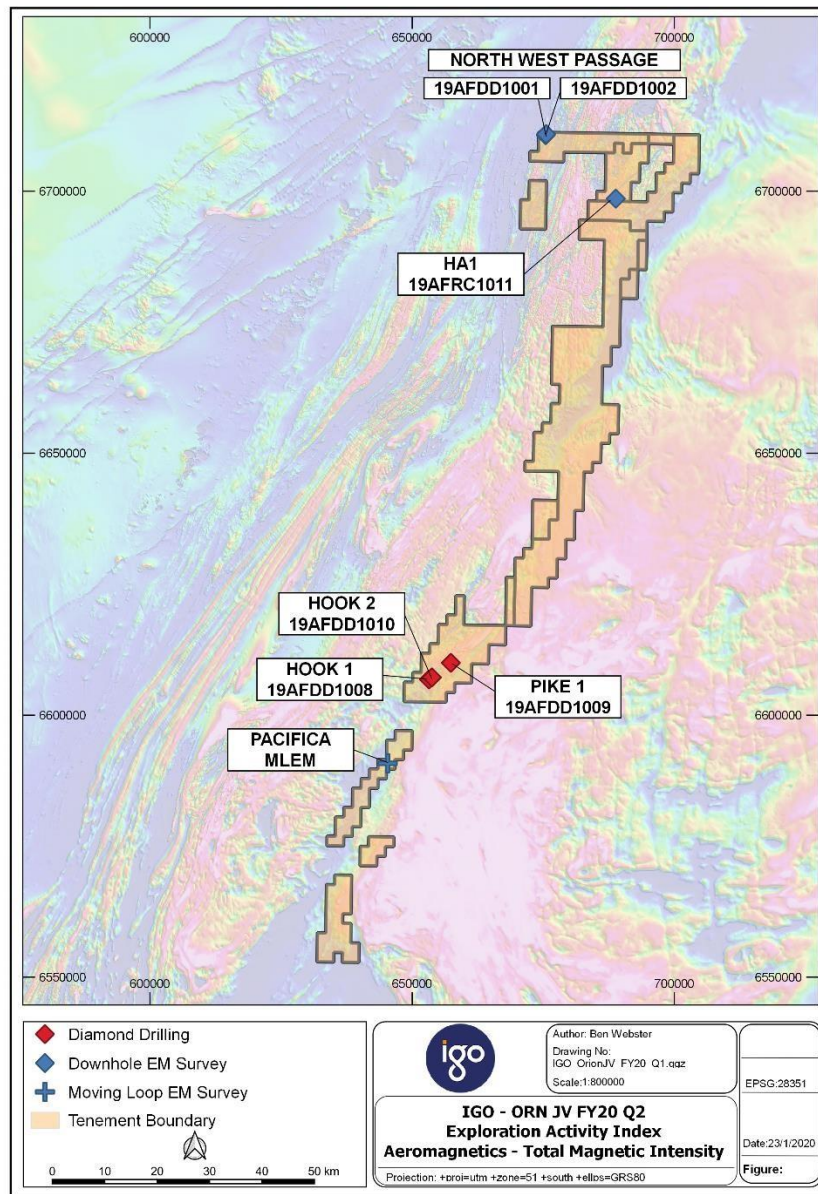


Figure 1: IGO-ORN Fraser Range Joint Venture Tenements showing Prospects and drill holes.

North West Passage

The North West Passage target was initially identified by Orion in a 2014 versatile time domain electromagnetic (VTEM) survey and was interpreted further by IGO using additional geophysical data, including aeromagnetics and ground gravity.

Two diamond drill-holes, 19AFDD1001 and 19AFDD1002, tested a steeply dipping 600m x 200m plate of 2,000 siemens, detected by a MLEM survey in 2017 (Figure 2).

The specifications of the survey are shown in Table 1 and details of the holes are summarised in Table 2, both below.

Hole 19AFDD1001 intersected mafic-ultramafic intrusive rocks intercalated with carbonate and graphitic meta-sediments.

Multi-phase ultramafic assemblages intrusive into carbonatitic and graphitic sub-units are considered to be highly prospective for magmatic nickel-copper mineralisation within the Fraser Range.

Table 1: Specifications of the fluxgate MLEM surveys conducted by IGO.

Configuration	Slingram
Loop size	200m
Line spacing	200m
Station spacing	100m
Total line kms	125.6
Receiver system	Smartem24 EMIT Fluxgate – Bz (up), Bx (east or 135 as appropriate), By (north or 315 as appropriate)
Sensor location	200m east or south east of Loop Centre as appropriate
Transmitter	IGO TEX 2/3
Effective current	~100A
Frequency	1Hz

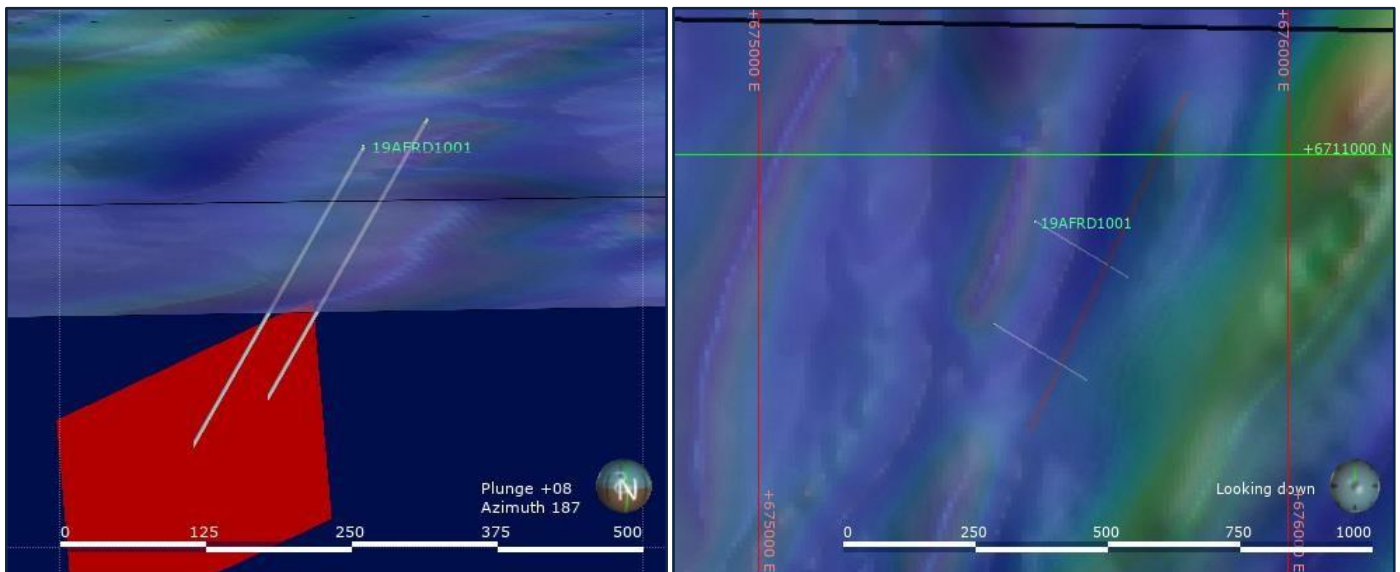


Figure 2: Planned collars and drill traces of drill-holes 19AFDD1001 and 19AFDD1002 (looking from the south) with targeted EM plate in red on the left and in plan view over merged tilt derivative and Total Magnetic image (north is up).

Table 2: Details of the holes drilled at the North West Passage.

Hole ID	Easting	Northing	RL	Dip	Azimuth	Target (m)	EOH (m)	Start Date	End Date
19AFDD1001	675523	6710882	287	-60	120	300	348.3	27/07/2019	02/08/2019
19AFDD1002	675443	6710697	286	-70	120	320	409.0	03/08/2019	08/08/2019

Hole 19AFDD1001

Geological logging and interpretation of assay results from 131 quarter core samples show three intervals of mafic-ultramafic intrusions.

Interval A, from 160m to 215m down-hole, returned maximum values of 2,350ppm Ni, 2,350ppm Cr and 28% MgO and consists of serpentinized mafic-ultramafic units intermingled with carbonate and graphitic sub-units. The interval contains visible sulphides with massive and semi-massive pyrrhotite-pyrite stringers injected into both serpentinized ultramafic rock and its host rocks. A semi-massive mineralised vein from 169.4m-169.8m down-hole, composed of pyrrhotite and pyrite with trace chalcopyrite blebs, is shown in Figure 3.

Interval B, developed between 240m and 253m down-hole is composed of mafic to ultramafic rocks with vein-hosted pyrite and pyrrhotite.

Interval C, from 267m to 278m down-hole, consists of peridotite and is devoid of sulphide. Maximum values include 2,130ppm Ni, 2,380 ppm Cr and 34% MgO.

Further assessment of the geochemical results is underway.



Figure 3: Semi massive pyrite-pyrrhotite vein from 188.3m-188.8m. The yellow circle indicates a chalcopyrite grain.

Hole 19AFDD1002

The hole intersected three mafic-ultramafic intrusive bodies between 99.75m down-hole and the end of the hole at 409m. 139 core samples were submitted for analysis. Interpretation of the geochemical results is in progress.

Pike Prospect – E28/2367

Three diamond drill holes were completed on the prospect with a total of 1,038m drilled (Table 2). Drilling was aimed at explaining MLEM conductors, magnetic anomalies and Cu and Zn bedrock anomalies (Figure 4).

Table 2: Details of drill holes drilled on E28/2367

Hole ID	Easting	Northing	Dip	Azimuth	Target Depth	EOH	Start Date	End Date	Prospect
19AFDD1008	653185	6606845	-75	135	280m	465.4m	9/10/2019	21/10/2019	Hook 1
19AFDD1009	657350	6610010	-75	150	330m	334.1m	27/10/2019	5/11/2019	Pike 1
19AFDD1010	653745	6607230	-75	135	200m	238.5m	6/11/2019	10/11/2019	Hook 2

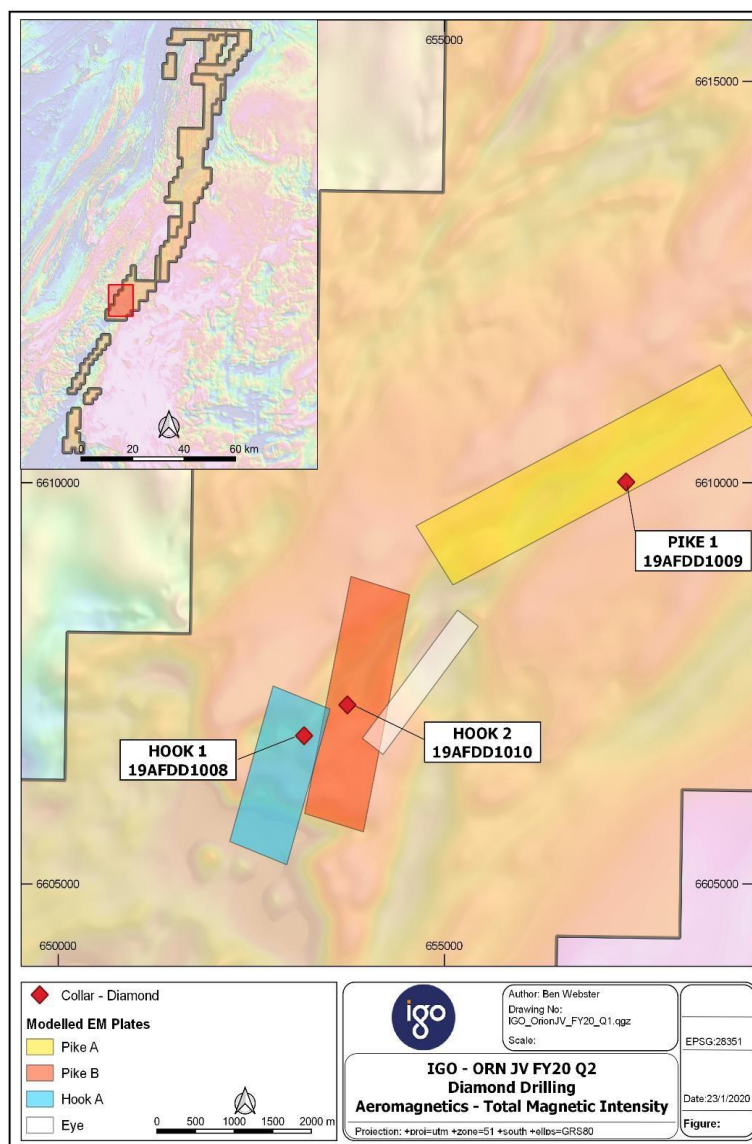


Figure 4: Plan view of the Pike 1, Hook 1 and 2 prospects with diamond drill holes drilled and targeted conductors plotted on airborne magnetics.

Drill Hole 19AFDD1008 – Hook1

Hook 1 lies 16km north-east of Legend Mining's new massive sulphide nickel-copper discovery at the Area D Prospect (Figure 5).

Hole 19AFDD1008 targeted a 7000 siemens conductor. The hole intersected amphibole-rich gabbronorite and meta-gabbronorite zones intercalated with meta-sediment that is locally graphitic. Stringers and 10cm thick veins of semi-massive pyrrhotite – pyrite with minor occurrences of chalcopyrite occur with the graphitic horizons (Figure 6).

Rare occurrences of native copper were noted in the amphibole rich gabbronorite. The intersections of gabbronorite zones vary from 6m to 57.5m

The presence of stringer sulphides within graphite-bearing meta-sediments and mafic-ultramafic intrusives warrants follow-up. The intrusives hosting nickel mineralisation at Legend Mining's Area D discovery occur within a bedded meta-sediment package containing graphitic units.

A DHEM survey of 19AFDD1008 was completed in November 2019. Modelling of the data highlighted several off-hole responses, of which a strongly conductive response beneath the end of the hole offers a compelling target.

Deepening of the current hole by approximately 180m is required to test the strongly conductive plate model located directly beneath the drill-hole.

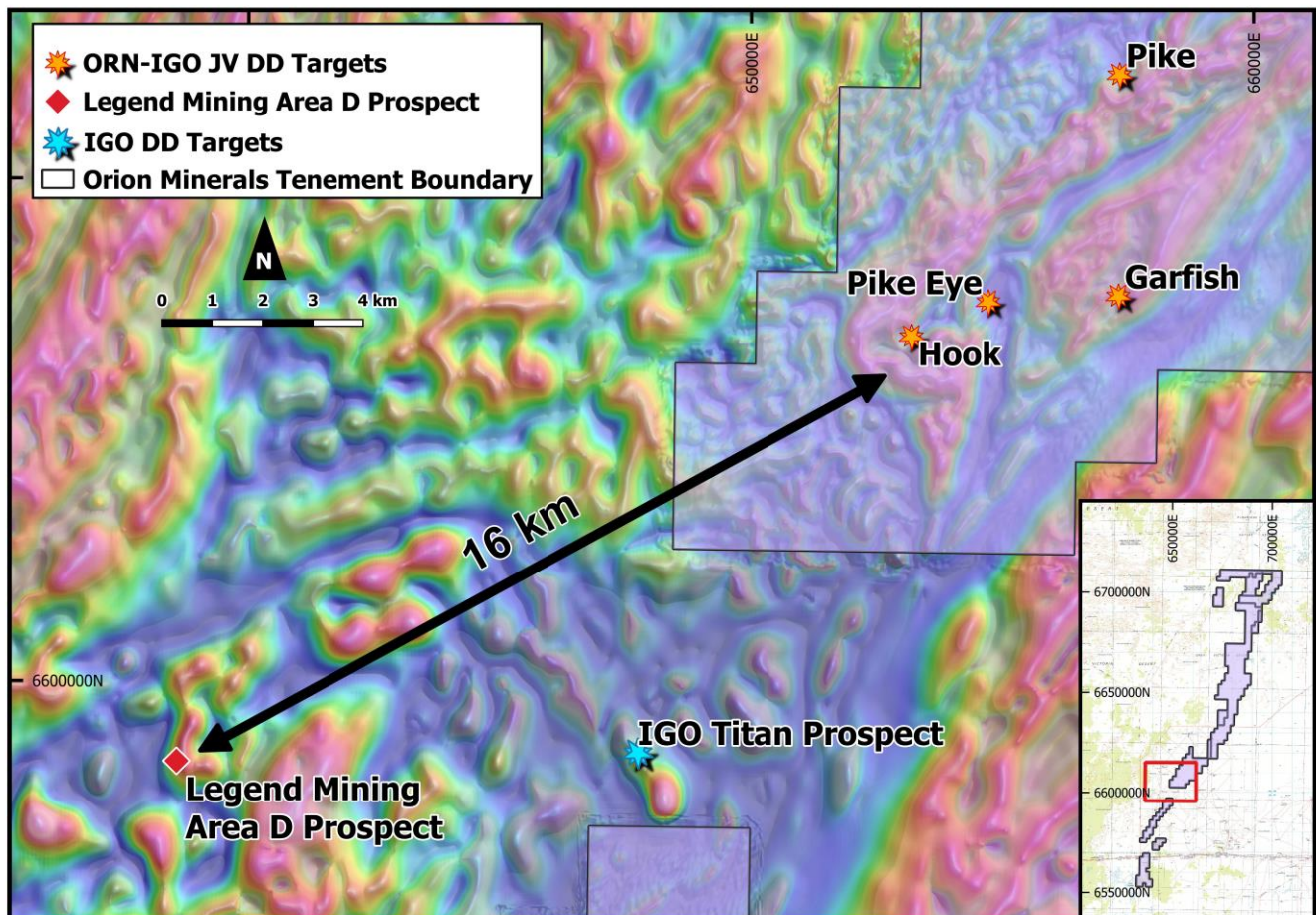


Figure 5: The IGO-Orion JV prospects on tenure E28/2367 and the Legend Mining Area D prospect plotted on an aeromagnetic map.



Figure 6: Semi-massive to massive pyrrhotite-pyrite vein at 331m down-hole depth in drill-hole 19AFDD1008 completed on the Hook 1 prospect.

Drill Hole 19AFDD1009 – Pike 4

Diamond drill hole 19AFDD1009 targeted a strike extensive 7000 siemens conductor loosely coinciding with an 11km long linear magnetic high on the Pike 1 prospect.

Bedrock lithologies below the 150m cover sequence and saprolite consisted of an intercalated package of metamorphosed gabbro-norite and meta-sediment. Gabbro-norites displayed minor pyrrhotite and chalcopyrite. DHEM surveys confirm that semi-massive graphite intersected between 307.5m to 330.8m down-hole explains the electromagnetic (**EM**) conductor.

Drill Hole 19AFDD1010 – Hook 2

Located 1km north of the Hook 1 prospect, this drill hole aimed to test a basement copper and zinc geochemical anomaly. The hole intersected basement lithologies consisting of banded graphite and pyrite bearing meta-sediment and meta-gabbro-norite. The hole terminated in meta-gabbro-norite.

Proposed Drilling

IGO plans to drill a further 2,560m in six holes, including extending hole 19AFDD1008 to test a strong off-hole conductor detected below the current end-of-hole depth.

Holes are also planned to test further EM targets at the North West Passage, Hook, Pike Eye and Pike (Figure 7). At Garfish, a gravity anomaly will be drilled to test for a mafic – ultramafic intrusive.

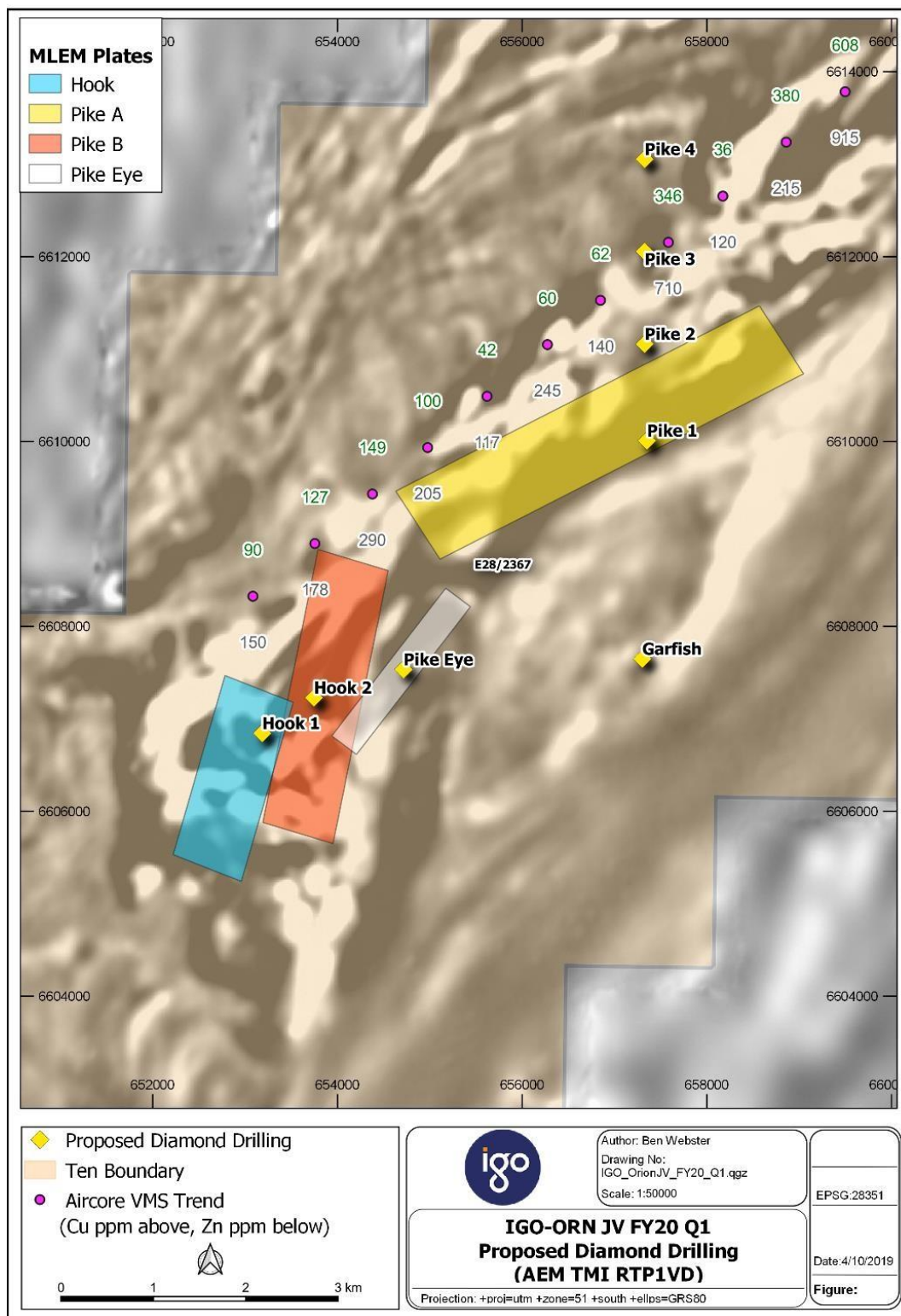
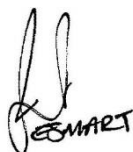


Figure 7: Prospects, completed and planned drill-holes on tenement E28/2367.

For and on behalf of the Board.



Errol Smart
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Competent Person Statement

The information in this report that relates to Exploration Results is based on information compiled by Mr Errol Smart (Pr.Sci.Nat.), a Competent Person who is a member of the South African Council for Natural Scientific Professionals, a Recognised Professional Organisation (**RPO**). Mr Smart is the CEO and Managing Director of Orion. Mr Smart has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the JORC Code. Mr Smart consents to the inclusion in this announcement of the matters based on his information in the form and context in which it appears.

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This release may include forward-looking statements. Such forward-looking statements may include, among other things, statements regarding targets, estimates and assumptions in respect of metal production and prices, operating costs and results, capital expenditures, mineral reserves and mineral resources and anticipated grades and recovery rates, and are or may be based on assumptions and estimates related to future technical, economic, market, political, social and other conditions. These forward-looking statements are based on management's expectations and beliefs concerning future events. Forward-looking statements inherently involve subjective judgement and analysis and are necessarily subject to risks, uncertainties and other factors, many of which are outside the control of Orion. Actual results and developments may vary materially from those expressed in this release. Given these uncertainties, readers are cautioned not to place undue reliance on such forward-looking statements. Orion makes no undertaking to subsequently update or revise the forward-looking statements made in this release to reflect events or circumstances after the date of this release. All information in respect of Exploration Results and other technical information should be read in conjunction with Competent Person Statements in this release (where applicable). To the maximum extent permitted by law, Orion and any of its related bodies corporate and affiliates and their officers, employees, agents, associates and advisers:

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Appendix 1: The following tables are provided in accordance with the JORC Code (2012) for the reporting of Exploration Results for the North West Passage and Pike Projects.

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"> 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. Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used. Aspects of the determination of mineralisation that are Material to the Public Report. 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. 	<ul style="list-style-type: none"> The sampling techniques used at Fraser Range have been diamond drilling (DD) as detailed in the following subsections.
Drilling techniques	<ul style="list-style-type: none"> 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.). 	<ul style="list-style-type: none"> Diamond drill holes were drilled by truck mounted rigs owned and operated by Frontline Drilling Australia Pty Ltd. Holes were collared from surface with PQ-core (85mm diameter) or PQ rock-rolled, which was then reduced to HQ-core (63.5mm diameter) and subsequently NQ2-core (50.6mm diameter) at depths directed by the IGO geologist.

Criteria	JORC Code explanation	Commentary
		<ul style="list-style-type: none"> All HQ and NQ core was oriented using REFLEX ACT III-H or N2 Ezy-Mark orientation tools.
Drill sample recovery	<ul style="list-style-type: none"> Method of recording and assessing core and chip sample recoveries and results assessed. Measures taken to maximise sample recovery and ensure representative nature of the samples. 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. 	<ul style="list-style-type: none"> For recovery checking and orientation marking purposes, the DD core was reconstructed into continuous runs in an angle iron cradle. DD recoveries were quantified as the ratio of measured core recovered length to drill advance length for each core-barrel run. There were no material core-loss issues or poor sample recoveries over the sampled intervals. Down hole depths were checked against the depth recorded on the core blocks, and rod counts were routinely carried out and marked on the core blocks by the drillers to ensure the marked core block depths were accurate.
Logging	<ul style="list-style-type: none"> 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. Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography. The total length and percentage of the relevant intersections logged. 	<ul style="list-style-type: none"> Qualitative logging of DD core included lithology, mineralogy, mineralisation, structures, weathering, colour and other features of the samples. Quantitative logging was completed for geotechnical purposes. The total lengths of all drill holes have been logged. The logging is considered adequate to support any downstream estimation, mining and/or metallurgical studies.
Sub-sampling techniques and sample preparation	<ul style="list-style-type: none"> If core, whether cut or sawn and whether quarter, half or all core taken. If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry. For all sample types, the nature, quality and appropriateness of the sample preparation technique. Quality control procedures adopted for all sub-sampling stages 	<ul style="list-style-type: none"> The DD core was generally subsampled into half-core using an automated wet-diamond-blade core saw. Exceptions were for duplicate samples of selected intervals, where quarter-core subsamples were cut from the half-core. All samples submitted for assay were selected from the same side of the core. The primary tool used to ensure representative drill core assays was monitoring and ensuring near 100% core recovery. Laboratory sample preparation of DD core involved oven drying (4-6 hrs at 95°C), coarse crushing in a jaw-crusher to 100% passing 10 mm,

Criteria	JORC Code explanation	Commentary
	<p><i>to maximise representivity of samples.</i></p> <ul style="list-style-type: none"> <i>Measures taken to ensure that the sampling is representative of the in-situ material collected, including for instance results for field duplicate/second-half sampling.</i> <i>Whether sample sizes are appropriate to the grain size of the material being sampled.</i> 	<p>then pulverisation of the entire crushed sample in LM5 grinding robotic mills to a particle size distribution of 85% passing 75 microns, and collection of a 200g sub-sample.</p> <ul style="list-style-type: none"> Quality control procedures involved insertion of certified reference materials (CRMs) and blanks at the pulverisation stage, and collection and submittal of quarter-core field duplicates. The results of duplicate sampling are consistent with satisfactory sampling precision.
Quality of assay data and laboratory tests	<ul style="list-style-type: none"> <i>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</i> <i>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.</i> <i>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</i> 	<ul style="list-style-type: none"> No geophysical tools were used to determine any element concentrations. Bureau Veritas Perth completed sample preparation checks for particle size distribution compliance as part of routine internal quality procedures to ensure the target particle size distribution of 85% passing 75 microns was achieved in the pulverisation stage. Field duplicates, CRMs and blanks were routinely inserted at frequencies between 1:10 and 1:20 samples. Laboratory quality control processes included the use of internal lab standards using CRMs, blanks, and duplicates. CRMs used to monitor accuracy have expected values ranging from low to high grade, and the CRMs were inserted randomly into the routine sample stream to the laboratory. The results of the CRMs confirmed that the laboratory sample assay values have good accuracy and results of blank assays indicate that any potential sample cross contamination has been minimised. Following sample preparation and milling, all DD core samples were analysed for a 63-element suite: <ul style="list-style-type: none"> Fire assay of 40g charge with ICPMS finish – Au, Pd, Pt. Laser ablation of fused bead with ICPMS finish – Ag, As, Be, Bi, Cd, Ce, Co, Cr, Cs, Cu, Dy, Er, Eu, Ga, Gd, Ge, Hf, Ho, In, La,

Criteria	JORC Code explanation	Commentary
		<p>Lu, Mn, Mo, Nb, Nd, Ni, Pb, Pr, Rb, Re, Sb, Sc, Se, Sm, Sn, Sr, Ta, Tb, Te, Th, Tl, Tm, U, V, W, Y, Yb, Zn, Zr.</p> <ul style="list-style-type: none"> ○ XRF analysis of powder fused with lithium borate flux including 5% NaNO₃ – Al, Ba, Ca, Fe, K, Mg, Na, P, S, Si, Ti. ○ Any intervals reporting >2000ppm Co, Cu, Ni or Zn were also analysed by XRF of powder fused with lithium borate flux including 5% NaNO₃ – these XRF analyses were used in preference to LA-ICPMS for calculations of mineralised intervals. <ul style="list-style-type: none"> • Loss on ignition was determined by robotic thermo gravimetric analysis at 1000°C.
Portable XRF Analysis	<ul style="list-style-type: none"> • <i>Instrument used, methodology applied, QC protocols and usage/applicability of the data.</i> 	<ul style="list-style-type: none"> • No portable XRF analysis were reported.
Verification of sampling and assaying	<ul style="list-style-type: none"> • <i>The verification of significant intersections by either independent or alternative company personnel.</i> • <i>The use of twinned holes.</i> • <i>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</i> • <i>Discuss any adjustment to assay data.</i> 	<ul style="list-style-type: none"> • Significant intersections were checked by senior IGO geological personnel. • No twinned holes were completed. • The logging has been validated by an IGO on-site geologist and compiled into the IGO acQuire SQL drill hole database by IGO's Geological Database Administrator. • Assay data were imported directly from the digital assay files provided by the contract analytical company Bureau Veritas Perth and were merged into IGO's acQuire SQL database by IGO's Geological Database Administrator. • Data is backed up regularly on off-site secure servers. • No geophysical or portable XRF results were used in the generation of the reported exploration results. • There have been no adjustments to the assay data.

Criteria	JORC Code explanation	Commentary
Location of data points	<ul style="list-style-type: none"> 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. Specification of the grid system used. Quality and adequacy of topographic control. 	<ul style="list-style-type: none"> Surface hole collar locations were determined using either a Leica GPS1200 (expected accuracy is better than $\pm 0.25\text{m}$ for all three dimensions) or a handheld Garmin GPS unit and averaging for 90 seconds with an expected accuracy of $\pm 6\text{m}$ for easting and northing. Drill path gyroscopic surveys were completed at either 10m or 12m intervals down hole using a north seeking REFLEX GYRO SPRINT-IQ. The grid system is GDA94 Zone 51.
Data spacing and distribution	<ul style="list-style-type: none"> Data spacing for reporting of Exploration Results. 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. Whether sample compositing has been applied. 	<ul style="list-style-type: none"> The drilling is for exploration purposes and targets conductive plates generated from surface geophysics (moving loop EM). Samples have been composited using length-weighted intervals for public reporting.
Orientation of data in relation to geological structure	<ul style="list-style-type: none"> Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type. 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. 	<ul style="list-style-type: none"> Drilling from the surface was designed to cross the conductive plate targets at a high angle. Holes have been drilled from both the southeast and northwest to provide stratigraphic coverage. True-widths of the intervals are yet to be determined and all reported widths are intersection widths. The possibility of bias in relation to orientation of geological structure is currently not known.
Sample security	<ul style="list-style-type: none"> The measures taken to ensure sample security. 	<ul style="list-style-type: none"> The chain-of-sample custody is managed by IGO staff. Samples were stored at IGO's currently active mine site designated the Nova Operation (Nova). The drill core was cut and sampled at Nova by IGO staff and contractors. Samples were placed in pre-numbered calico bags and further secured in green plastic sample bags with cable ties. The samples are

Criteria	JORC Code explanation	Commentary
		<p>further secured in a bulka bag and delivered to Bureau Veritas Perth by freight contractor McMahon Burnett.</p> <ul style="list-style-type: none"> • A sample reconciliation advice is sent by Bureau Veritas Perth to IGO's Geological Database Administrator on receipt of the samples. • Sample preparation and analysis was completed at the laboratory of Bureau Veritas Perth. • The risk of deliberate or accidental loss or contamination of samples is considered very low.
Audits or reviews	<ul style="list-style-type: none"> • <i>The results of any audits or reviews of sampling techniques and data.</i> 	<ul style="list-style-type: none"> • No specific external audits or reviews have been undertaken at this stage of the program.

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">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.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.	<table><tr><th>Exploration</th><th>Expiry</th><th colspan="2">Details</th></tr><tr><th>Licence</th><th>Date</th><th>JV Manager</th><th>JV % holding</th></tr><tr><td>E28/2367</td><td>06/05/2020</td><td>IGO/Orion</td><td>IGO 70% Orion 30%</td></tr><tr><td>E39/1654</td><td>24/02/2022</td><td>IGO/NBX/Orion</td><td>IGO 60% NBX 30% Orion 10%</td></tr></table>	Exploration	Expiry	Details		Licence	Date	JV Manager	JV % holding	E28/2367	06/05/2020	IGO/Orion	IGO 70% Orion 30%	E39/1654	24/02/2022	IGO/NBX/Orion	IGO 60% NBX 30% Orion 10%
		Exploration	Expiry	Details														
		Licence	Date	JV Manager	JV % holding													
		E28/2367	06/05/2020	IGO/Orion	IGO 70% Orion 30%													
E39/1654	24/02/2022	IGO/NBX/Orion	IGO 60% NBX 30% Orion 10%															
Exploration done by other parties	<ul style="list-style-type: none">Acknowledgment and appraisal of exploration by other parties.	<ul style="list-style-type: none">There has been historical regional exploration for gold and base metals by Companies listed above. Previous work on the tenements consisted of aeromagnetic/radiometric and DTM Aeromagnetic / Radiometric / DTM surveys, soil sampling, geological mapping, ground EM survey.There has been previous sporadic air core, RC and diamond drilling conducted.																
Geology	<ul style="list-style-type: none">Deposit type, geological setting and style of mineralisation.	<ul style="list-style-type: none">The project area is considered highly prospective for volcanogenic massive sulphide deposits, based on the recently identified mineralisation. Similar mineralisation style is also identified in adjacent tenements.The region is also considered by IGO and to have the potential to host mafic or ultramafic intrusion related Ni-Cu-Co deposits based on the discovery of Nova-Bollinger Ni-Cu-Co deposit and volcanic massive sulphide deposit based on IGO's Andromeda exploration prospect.																
Drill hole Information	<ul style="list-style-type: none">A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:easting and northing of the drill hole collarelevation or RL (Reduced Level – elevation above sea level in	<ul style="list-style-type: none">Location details of significant intercept DD holes are tabulated in the body of the ASX Public Report.																

Criteria	JORC Code explanation	Commentary
	<p>metres) of the drill hole collar</p> <ul style="list-style-type: none"> dip and azimuth of the hole down hole length and interception depth hole length. If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case. 	
Data aggregation methods	<ul style="list-style-type: none"> 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. 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. The assumptions used for any reporting of metal equivalent values should be clearly stated. 	<ul style="list-style-type: none"> No significant drill hole intercept were reported in this release.
Relationship between mineralisation widths and intercept lengths	<ul style="list-style-type: none"> These relationships are particularly important in the reporting of Exploration Results. If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported. 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'). 	<ul style="list-style-type: none"> Only downhole intersection widths are provided as an understanding of the structural geometry is at an early stage.

Criteria	JORC Code explanation	Commentary
Diagrams	<ul style="list-style-type: none"> Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported. These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views. 	<ul style="list-style-type: none"> No intercepts is reported in this report.
Balanced reporting	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> Geochemical results reported does not refer to significant intervals of mineralisation.
Other substantive exploration data	<ul style="list-style-type: none"> Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances. 	<ul style="list-style-type: none"> A surface EM survey and downhole EM surveys have identified three dimensional geophysical targets that are included in the diagrams in the body of this ASX release.
Further work	<ul style="list-style-type: none"> The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling). Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive. 	<ul style="list-style-type: none"> Further drilling is planned to test the conductive plates generated from the EM surveys.