



## Orion Minerals

ASX/JSE RELEASE: 30 July 2020

# Quarterly Activities Report For Period Ended 30 June 2020

## HIGHLIGHTS

- **Prieska Project updated mine feasibility study (BFS) completed and project execution planning progressed:**
  - The updated BFS delivers numerous improvements on the previous study completed in June 2019 (refer to ASX release 26 June 2019), including, amongst others:
    - a 43% increase in undiscounted free cashflows to AUD1.6 billion, pre-tax;
    - a 36% increase in NPV (at an 8% discount rate) to AUD779 million, pre-tax; and
    - a 6% decrease in all-in-sustaining costs to USD3,531/t (USD1.60/lb) of copper equivalent metal sold.
  - Post-BFS project execution planning continues with:
    - mine-to-market studies being undertaken by Whittle Consulting;
    - in-house preparation of EPCM selection inquiry documentation;
    - key project permitting activities continue with the granted Vardocube Environmental Authorisation now through the mandatory public comment period;
    - key supply and service contract negotiations being progressed; and
    - ongoing debt and equity funding negotiations with third parties.
- **Code of Practice implemented to manage workplace hazards arising from the COVID-19 pandemic:**
  - As part of the measures being adopted to proactively manage hazards arising from the COVID-19 pandemic, a mandatory Code of Practice was implemented.
- **Namaqua-Disawell:**
  - Several geophysical targets identified for follow-up; and
  - Following Quarter end, Orion entered into an agreement to acquire the remaining minority vendor interest in the Jacomynspan Project, whereby Orion will become 70% owner with Orion's BEE partners, community and employee trusts to hold an aggregate 30% interest in compliance with Mining Charter III.
- **Near Mine Exploration Project:**
  - Drill ready and targets ready for electro-magnetic (**EM**) follow-up confirmed.
- **Australia - Fraser Range, Western Australia:**
  - IGO Limited (ASX: IGO) plans to continue drilling on nickel-copper targets on the IGO-Orion Fraser Range Joint Venture tenements; and
  - Noted reports of further success on the nearby Mawson Prospect with massive sulphide intersections reported by neighbouring company, Legend Mining Limited (ASX: LEG). Mawson, previously called Area D, is located just 16km south west of the IGO-Orion Pike prospect which forms part of the ongoing drill programs being undertaken by IGO (refer ASX release 23 April 2020).

## Operations Report

Orion Minerals Limited (**Company** or **Orion**) remains committed to ensuring a safe and healthy workplace and to always promoting the well-being of the environment and community, whilst achieving operational efficiency and commercial excellence in all its endeavours.

### COVID-19

During the Quarter, the Company's operations continued to be impacted by the COVID-19 pandemic. Where possible, work from home protocols remain in place and works essential to safeguard Company property and the health and safety of employees and contractors were strengthened. Restrictions in South Africa were lifted in progressive stages, allowing some flexibility for on Prieska Project site inspections and key stakeholder appointments to be undertaken.

The Company has implemented specific policies in response to the pandemic, including those mandated by the South African Government. These policies set out clear guidelines and responses to management of workplace operations and what is expected of each employee and contractor before arriving on site.

Following completion of the updated bankable feasibility study (**BFS**), as announced in May 2020, the Company continues its focus on the development of the Prieska Copper-Zinc Project, located in South Africa's Northern Cape Province (**Prieska Project**).

In parallel, the Company continues its contact with the wider community around the Prieska Project, providing support for basic needs and consistent news flow, as reflected in the Community and Stakeholder Engagement below.

### Health and Safety, Environmental Management and Community Engagement

#### Health and Safety

No injuries were recorded during the Quarter. The hours worked for the Quarter and financial year to date are shown below:

**Table 1: Hours worked at the Areachap Projects (South Africa).**

Category of Work	Hours Worked	
	Quarter	Financial Year to Date
Exploration	112	39,443
Mine Re-Entry	656	11,153
Contractors	88	3,310
<b>Total</b>	<b>856</b>	<b>53,906</b>

The Lost-Time Injury Frequency Rate (**LTIFR**) per 200,000 hours worked is **0** for the 2020 calendar year.

As part of further proactive measures to manage the COVID-19 pandemic hazard in the workplace, and in compliance with statutory requirements, the Company implemented a Code of Practice and Standard Operating Procedures across all operations. The protocols continue to encourage working from home, social distancing, periodic screening and testing for possible infection, to reduce the potential of workplace transmission of the Coronavirus. No cases of infection with the Coronavirus or illness from COVID-19 have been reported amongst any Company employees or contractors.

## Environmental Management

Work continued during the Quarter to secure the remaining licences and approvals required before mining operations can be undertaken at the Prieska Project.

The Prieska Project is located within the Square Kilometre Array Radio Telescope Project (**SKA**) area, in which special licencing is required to undertake mining operations. Under the guidance of the Electromagnetic Capability (**EMC**) Committee, the permit application for unintentional emitters for existing on-site equipment (mainly generators and transformers) has been submitted and the SKA have responded requesting mitigation measures to be carried out.

Since the application was made, some of the equipment has been removed from site (diesel generators) and Orion's consultants are discussing a re-submission that is expected to eliminate the need for the mitigation.

The permit application for intentional emitters (radios, wi-fi) will be submitted before the end of December 2020, in line with the regulatory stipulations – as the application period has been extended from the previous June 2020 date regulated by government. Work is continuing on the application for the new mine equipment which will be required to be submitted before construction starts.

The 2020 annual environmental audits for the Vardocube and Bartotrax Prospecting Rights were completed, and the reports were submitted to the Department of Mineral Resources and Energy (**DMRE**) on the 15 June 2020.

## Community and Stakeholder Engagement

The Quarter was characterised by COVID-19 pandemic related lockdown restrictions in South Africa. Communication was maintained with the Orion Siyathemba Stakeholder Engagement Forum (**OSSEF**) by remote means, with the intention to resume in person Forum meetings in Siyathemba as early as possible in the September 2020 Quarter, as COVID lockdown restrictions are slowly lifted.

During the Quarter the Company initiated and chaired regular remote meetings of the Siyathemba Joint Corporate Social Investment Forum (**CSI Forum**), which comprises representation from the major private and state enterprises with activities in the municipal area (Orion, Mulilo Prieska Solar Community Trust, Copperton Wind Farm, Garob Wind Farm, Sonnedix, GWK (agricultural cooperative), Alkantpan Test Range, South African National Roads Agency (SANRAL).

In regular guest attendance was the Chairperson of the Siyathemba Local Outreach Response Team (**LORT**), the local government body established to coordinate and implement COVID-19 pandemic control and mitigation measures. The CSI Forum provides a platform for local enterprises to share information on their individual COVID-19 responses and to collaborate and synchronise community initiatives and interventions, in consultation with, and in support of, the LORT. It is anticipated that, beyond the immediate COVID crisis, the scope of the CSI Forum will expand to include collaboration on broader community investment initiatives.

Direct community interventions undertaken by the Company during the Quarter included the provision of food parcels to destitute families and hand sanitisers to old age homes. The Company facilitated an individual in Marydale to establish a small mask making business by providing seed capital for the purchase of material. To alleviate the pressures on families with young children during the lockdown, the Company arranged for the printing and distribution of children's playbooks (Crayons were donated by another participant from the CSI Forum, the Mulilo Trust).

The final layout design for the proposed residential development in Prieska was agreed by the Municipality and the Company during the Quarter, paving the way for the initiation of the public comment period and for the Spatial Planning and Land Use Management Act application to be submitted to the District Municipal Planning Tribunal.

The public comment period for the application for the Prieska Project land use change from Unspecified Zone to Special Zone (Extractive Industry) was delayed due to the lockdown and submission to the District Planning Tribunal for final approval was only done in July 2020. Formal approval is expected during the September 2020 Quarter.

## Overview

During the Quarter, Orion continued work on its highly prospective South African projects, including the completion of the Prieska Project updated BFS in June 2020 and a continued focus on optimisation studies. In addition, ongoing low-key exploration activities including soil sampling on the near-mine prospects were undertaken and a Mining Right Application over the Marydale Gold-Copper Project was submitted.

In the Fraser Range (Western Australia), Orion's joint venture partner, IGO Limited (**ASX: IGO**) is currently resolving logistical challenges in preparation for the next phase of diamond drilling on highly prospective nickel-copper sulphide targets identified from geophysical surveys, mapping and geochemical sampling programs.

## Exploration and Mine Development

### Areachap Belt Projects (South Africa)

#### Prieska Copper-Zinc Project

##### Project Overview

The Prieska Project continues to be the focus of the Company's activities and is now in the fund-raising stage after an updated BFS was completed during the Quarter (refer ASX release 26 May 2020). Post-BFS activities undertaken during the Quarter included continuing with the mine to market enterprise optimisation investigations being carried out in collaboration with Whittle Consulting, advancing licencing processes and continuing with project execution planning activities which include preparing the EPCM inquiry documentation and ongoing discussions with potential service providers.

Following the positive outcomes of the updated BFS, Orion is targeting a final investment decision for the Prieska Project as soon as financing negotiations have been concluded. Orion intends to fund the development of the Prieska Project by means of a combination of debt and equity. The Company is progressing discussions with both potential debt and equity providers. Orion has appointed Macquarie Capital to assist the Company in considering equity funding alternatives.

During the Quarter, the Company received confirmation from the South African Companies and Intellectual Property Commission, that Orion's application to change the name of Repli Trading No 27 (Pty) Ltd to Prieska Copper Zinc Mine (Pty) Ltd (**Prieska**) was successful. Prieska (a 70% owned subsidiary of Orion) and its subsidiary company Vardocube (Pty) Ltd (**Vardocube**), hold the mining and prospecting rights which cover the Prieska Project area.

## Prieska Project Bankable Feasibility Study and Post-Study Activities

### Feasibility Study Outcomes

An updated BFS was completed for the proposed new 2.4Mtpa<sup>1</sup> copper and zinc mining operation at the brownfields Prieska Project. The updated BFS delivers numerous improvements on the previous study completed in June 2019 (refer ASX release 26 June 2019), including<sup>2</sup>:

- 43% increase in undiscounted free cashflows to AUD1.6 billion, pre-tax (AUD1.2 billion post-tax);
- 36% increase in NPV (at an 8% discount rate) to AUD779 million, pre-tax (AUD552 million post-tax);
- 6-month reduction in the capital payback period to 2.4 years;
- 6% decrease in all-in-sustaining costs to USD3,531/t (USD1.60/lb) of copper equivalent metal sold;
- 3% increase in all-in-sustaining margin increasing to 47%;
- 5% increase in pre-tax IRR to 39%; and
- 9% increase in peak funding requirements to AUD413 million to cater for the operational improvements.

The updated BFS incorporates:

- a water treatment plant to produce agricultural quality water and reduce the dewatering pumping timeline for the shaft dewatering from 14 to 10 months duration;
- value engineered modifications to the processing plant layout to incorporate semi-autogenous grinding mills, resulting in cost savings by removing the need for multi-stage crushing; and
- refinements of the mine schedule to prioritise extraction of the higher grade and higher confidence Mineral Resource categories in the early stages of the Foundation Phase.

Further improvements to the updated BFS business plan that can be expected and implemented during commissioning and operation include:

- improvements in plant and concentrate grade recoveries to match historical plant performance, which exceed the results achieved during the bench-scale test work conducted as part of the BFS and assumed in the study projections;
- likely mine life extension opportunities based on high-grade drilling intersections and geophysical targets on the periphery of the Prieska deposit;
- the potential extraction of mineralised structural pillars remaining from historical mining activities;
- ongoing delineation of significant new satellite deposits within an emerging VMS camp, as evidenced by the early success of the limited amount of regional exploration completed to date; and
- implementation of the results of the ongoing mine-to-market optimisation studies to refine mine development and early production plans.

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<sup>1</sup> This production target was first reported in ASX announcement of 26 May 2020: "Updated Feasibility Study Delivers..." available to the public on <http://www.orionminerals.com.au/investors/asx-jse-announcements/>. All material assumptions underpinning the production target detailed in the initial report continue to apply and have not materially changed.

<sup>2</sup> The forecast financial information provided here was first reported in ASX announcement of 26 May 2020: "Updated Feasibility Study Delivers..." available to the public on <http://www.orionminerals.com.au/investors/asx-jse-announcements/>. All material assumptions underpinning the forecast financial information derived from a production target detailed in the initial report continue to apply and have not materially changed.

### Mine-to-Market Enterprise Optimisation

Whilst the value engineering and pilot water treatment work previously mentioned in the Q3 2019 Report were completed and included in the updated BFS, the mine-to-market optimisation studies being undertaken under the guidance of Whittle Consulting are ongoing. Optimisation results are expected during the latter half of 2020, with potential refinements to be considered for incorporation during the execution stages of project development.

### Process Plant Operations

Discussions are continuing with Minerals Operations Executive (Pty) Ltd (**Minopex**) which has been selected to operate the processing plant. In addition to the Operating Agreement (the costing metrics were included in the May 2020 BFS), Orion is engaging with Minopex on matters around operational readiness and the commissioning stage of the plant as the Project moves towards planning the construction phase.

### Underground Mining Contract

Discussions with Byrncut Offshore (Proprietary) Limited (**BOPL**) aimed at investigating commercial collaboration for the underground mining activities were paused, as the Company concentrated on completing the updated BFS. In parallel with the fund-raising efforts, the Company has recommenced investigating the most suitable approach to conduct underground mining operations, the collaboration with BOPL being one of the alternatives under consideration.

### Mining Right Applications

The Environmental Approval for the Vardocube Mining Right Application was granted last Quarter, making way for the related Mining Right to be granted is expected during the September 2020 Quarter. Subsequent to the June 2020 Quarter end, the Application for the Project site land rezoning for mining purposes (as a Special Zone – Extractive Industry) has been tabled at the regional review tribunal and formal notice of approval is imminent.

### Infrastructure

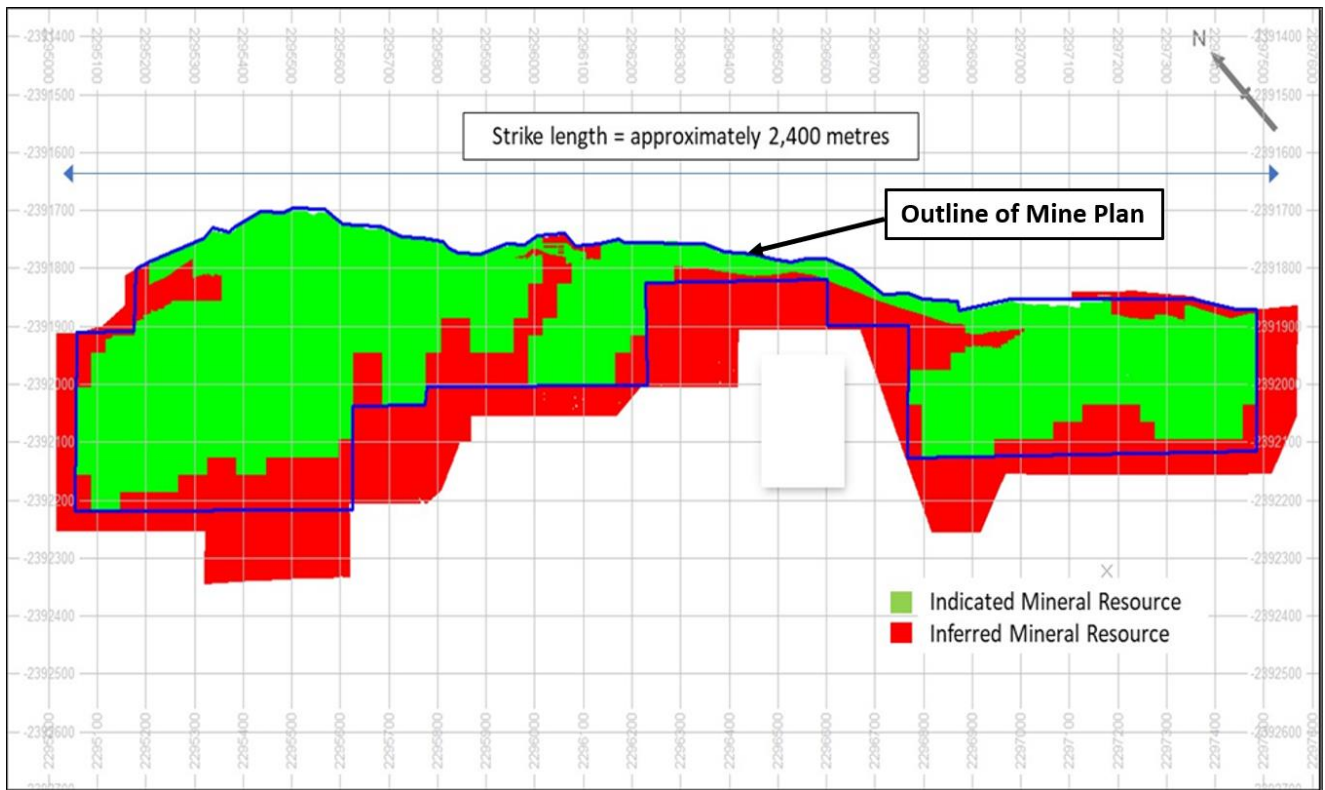
*Power Supply* – Design work has continued on the 15 MVA power infrastructure. This is the temporary power supply setup required during the construction phase of the project. The design work will enable construction of the Cuprum Sub-station feeder bay to begin by the December 2020 Quarter, subject to funding and investment approval. The 40 MVA application, for the power supply setup required for the operating phase of the Project, was approved by Eskom, the national utility company. Eskom is now to issue a Budget Quote Letter, which formally outlines the fee payable by Orion, to enable works to commence.

*Water Supply* – Following on from the Siyathemba Municipality's approval of the key terms for a water supply agreement, a binding formal agreement is expected to be executed during the second half of calendar year 2020.

### Extension of juwi Renewable Energy Collaboration

The Memorandum of Understanding entered into by the Company with juwi Renewable Energies Pty Ltd (**juwi**) was extended to August 2020. The Company and juwi intend to collaborate on establishing a hybrid wind and solar renewable energy facility that will supply 52% of the Prieska Project's power requirements. The extension provides the parties the opportunity to explore additional funding options currently under consideration.

## Deep Sulphide Resource



**Figure 1: Plan of the Deep Sulphide Mineral Resource showing the Inferred Resources included in the current mine plan.**

The underground drill plan designed to convert the Inferred Deep Sulphide Mineral Resources included in the mine plan, to Indicated Mineral Resources was completed during the Quarter. The underground drilling program will consist of 120 drill holes totalling 22,406m. The drilling schedule was completed in accordance with the mine schedule that was received during May 2020 with drilling spread out over the currently planned production period. The Inferred Resources included in the mine plan total 6.1Mt at 1.24% Cu and 4.52% Zn and make up 36% of the total Resources in the mine plan. As previously reported, the total Indicated and Inferred Deep Sulphide Resource is 28.7Mt at 1.16% Cu and 3.77% Zn (Indicated Resources of 18.5Mt at 1.17% Cu and 3.60% Zn and Inferred Resources of 10.2Mt at 1.14% Cu and 4.08% Zn)<sup>3</sup>.

Figure 2 shows 120 drill holes planned to upgrade Inferred Mineral Resources to an Indicated level of confidence with the drill schedule.

<sup>3</sup> Mineral Resource reported in ASX release of 18 December 2018: "Landmark Resource Upgrade Sets Strong Foundation" available to the public on <http://www.orionminerals.com.au/investors/asx-jse-announcements>. Competent Person: Orion's Mineral Resource: Mr. Sean Duggan. Orion confirms it is not aware of any new information or data that materially affects the information included above. The company confirms that all material assumptions and technical parameters underpinning the resource estimates in the ASX release of 18 December 2018 continue to apply and have not materially changed. Orion confirms that the form and context in which the Competent Person's findings are presented here have not been materially modified.

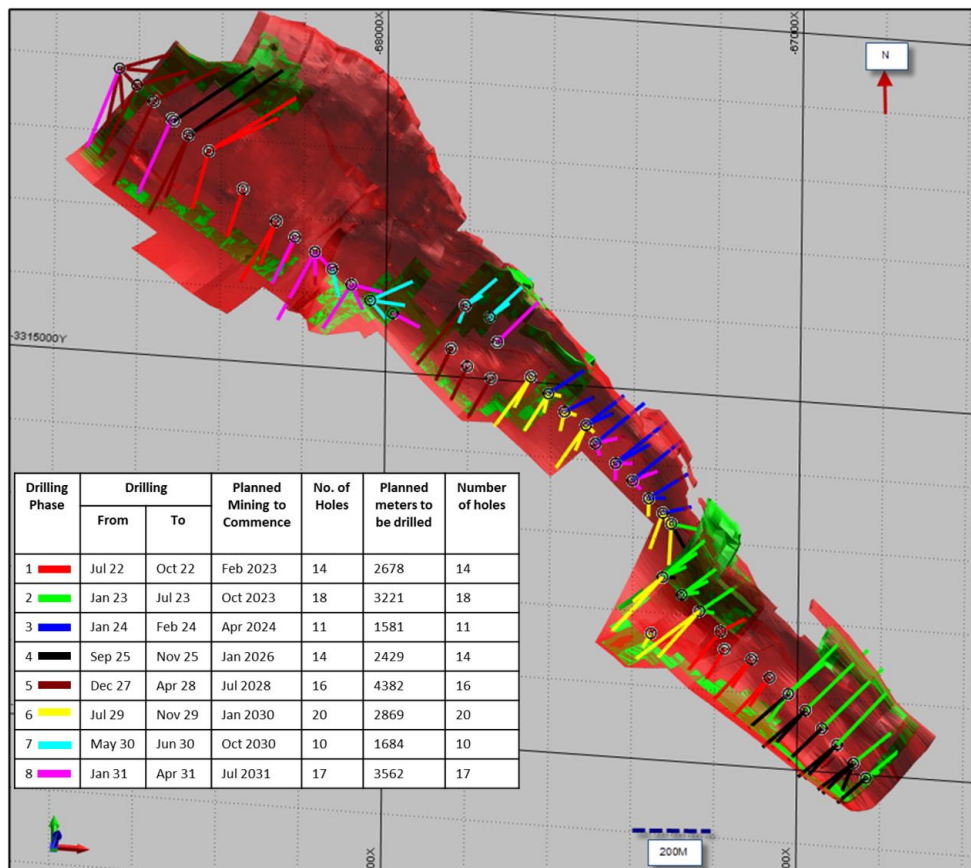


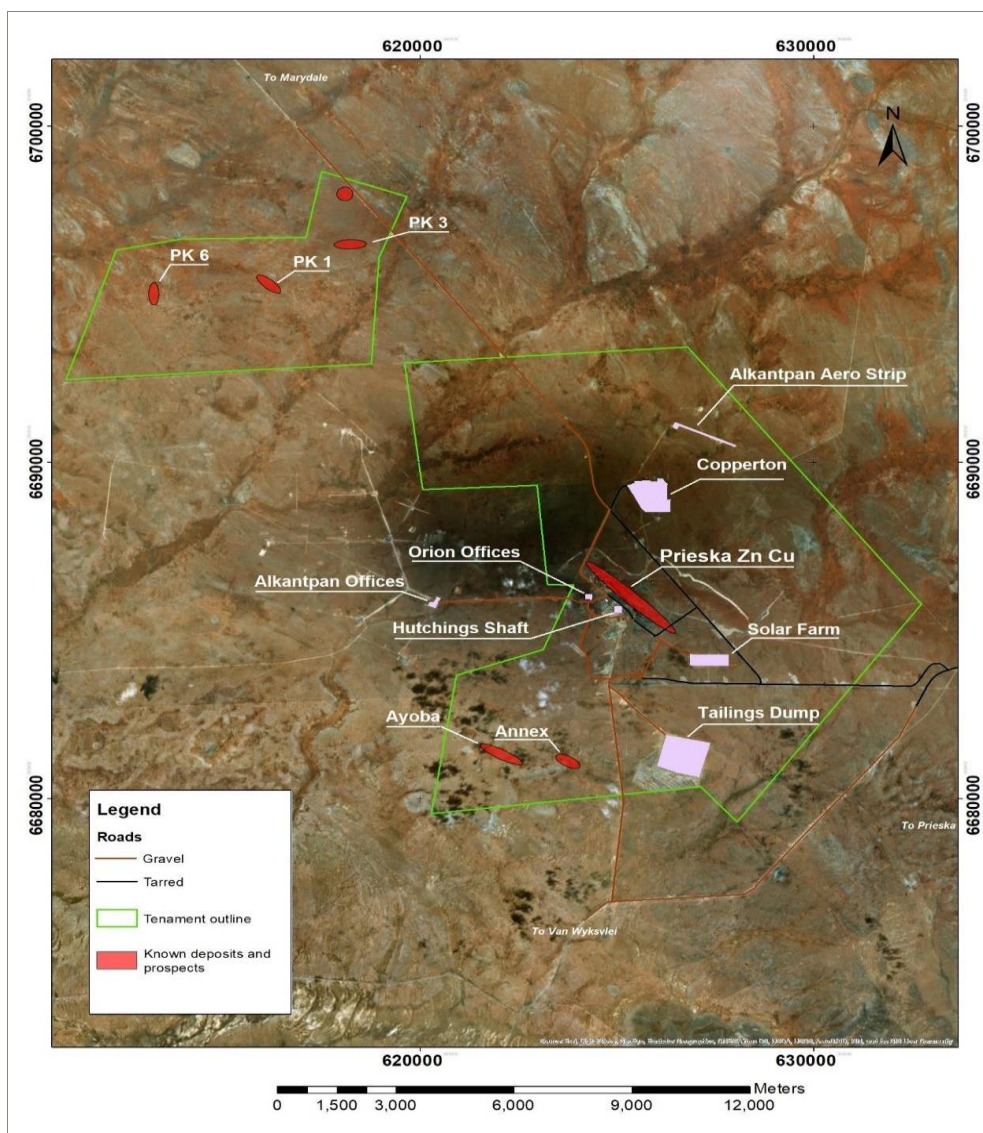
Figure 2: Oblique view of the Deep Sulphide Resource showing the planned drill layout on the preliminary mine schedule.

### Near-Mine Projects

The near-mine projects are those projects within prospecting rights held by Prieska (formally Repli) (Doonies Pan area), Vardocube and Bartotrax (Pty) Limited (**Bartotrax**).

Volcanogenic Massive Sulphide (**VMS**) deposits worldwide tend to occur in clusters and, apart from the giant Prieska Deposit, five smaller deposits have previously been discovered on the near-mine project areas. These include Annex, explored by Anglovaal between 1969 and 1981; three deposits on Doonies Pan (Kielder Prospects) explored by Newmont South Africa between 1976 and 1979 and referred to as the PK1, PK3 and PK6 Deposits and the Ayoba mineralisation recently discovered by Orion (Figure 3).





**Figure 3: Surface plan showing the prospecting rights over and adjacent to the Prieska Project and the location of the Annex, Kielder (PK1, PK3 and PK6) deposits and Ayoba Prospect.**

A comprehensive study of both the historic and recent exploration data and results were undertaken during the Quarter and several recommendations regarding future exploration programs were made. Results emphasise the prospectivity of the Annex-Ayoba structure, PK1, PK3 and PK6 prospects on Kielder and the strike is an extension of the Prieska Copper Zinc deposit. Once exploration recommences, it is recommended that the following work is undertaken:

- Follow-up drilling on the Ayoba prospect where Orion discovered significant Cu and Zn mineralisation in 2018 (refer to ASX release 16 January 2019);
- Ground EM surveys over 9 SkyTEM™ anomalies detected on Prieska (formally Repli) Dooniespan (Kielder) prospecting right (refer to ASX release 25 February 2019);
- Ground EM surveys over 3 SkyTEM™ anomalies detected on the Vardocube Prospecting Right (refer ASX release 25 February 2019); and
- Blanket coverage of the paleo seafloor position as projected at both the Prieska Cu-Zn and the Annex – Ayoba Cu-Zn deposits.

## Regional Exploration (South Africa)

### Overview of Regional Activity

The Company maintains a substantial and prospective land holding in the Areachap Belt (Figure 4). The Areachap Belt is analogous to other Proterozoic mobile belts hosting major VMS and magmatic Ni-Cu-Co-PGE deposits.

VMS deposits almost always occur in clusters or “districts” associated with volcanic spreading centres, with four such centres having been identified in the Areachap Belt. In addition to the Near Mine Project, the Company is also prospecting for VMS deposits on the Masiqhame Prospecting Right (Figure 4). The Kantiengpan and Boksputs Copper - Zinc Deposits are the two most prominent known VMS deposits on the Masiqhame Prospecting Right.

Similarly, world-class intrusive nickel deposits also tend to occur in clusters both on prospect and regional scale in orogenic belts along geological plate margins similar to the Areachap setting. Within these intrusive centres, a small number of the intrusions tend to host the best mineralisation depending upon the intrusion magma-flow dynamics and timing of magmatic sulphide immiscibility and transport. Several mafic intrusive bodies with nickel and associated metals are located on the Namaqua Disawell Prospecting Rights (Figure 4).

The setting of mineralisation has been confirmed to be analogous to other orogenic-hosted, deep-seated magma conduit complexes such as Kabanga (Tanzania), Nova (Australia), Ntaka Hill (Tanzania), Akelikongo (Uganda), and Limoeiro (Brazil). Conduit style mineralisation is currently the top priority global target for magmatic Ni-Cu-PGE sulphide exploration.

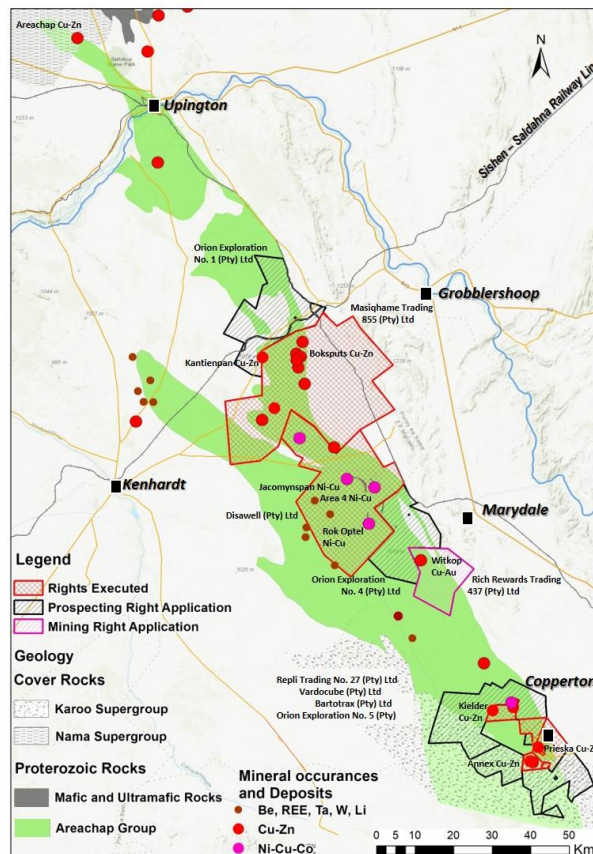


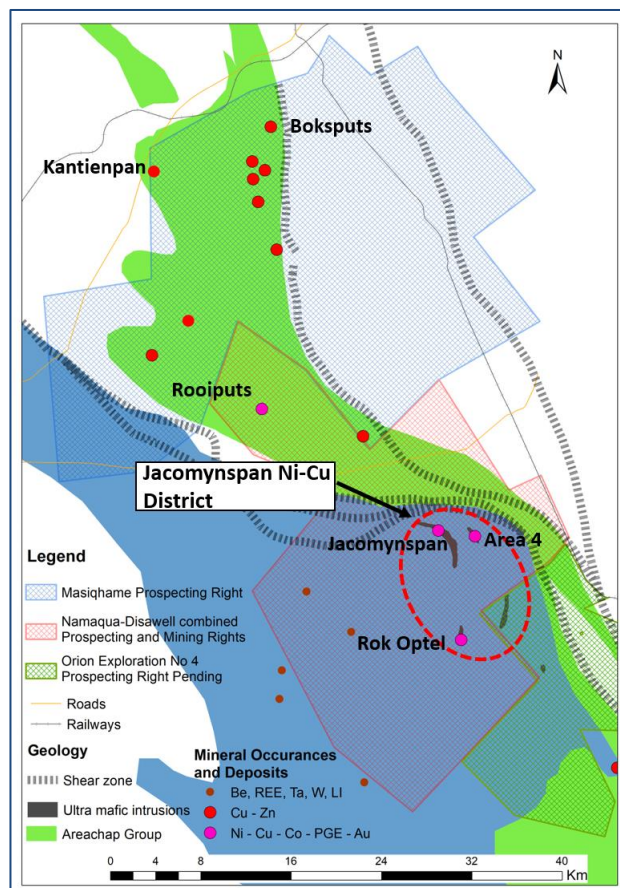
Figure 4: Regional geology map of the Areachap Belt showing prospecting rights held and under application by the Company and noted mineral occurrences as per published data from South African Council for Geoscience.

## Namaqua Disawell Project Area

### Overview

The Jacomynspan Deposit (Figure 5) was discovered by Anglo American Prospecting Services (**AAPS**) in 1971. Resource-definition drilling was carried out to a depth of 900m over 1.3km strike distance by AAPS, with disseminated nickel-sulphide mineralisation having been intersected with widths varying between 30 to 70m (refer ASX release 14 July 2016). Within the disseminated Ni-sulphide mineralisation, zones of semi massive sulphide mineralisation with higher grades do occur as reflected in drill hole PC24, drilled by Anglo American Prospecting Services in 1971. This hole intersected 18m at 1.01% Ni, 0.41% Cu, 0.06% Co from 570.33m down hole depth<sup>4</sup>.

Two other Ni-Cu deposits, Area 4 and Rok Optel, were investigated during the 1970s by AAPS, Newmont, Phelps Dodge and Hoch Metals. Subsequent and prior to the Company obtaining the prospecting and mining rights, various companies including Anglovaal, Glencor, Gold Fields and Namaqua Nickel explored the area. The Company conducted AEM surveys over the Prospecting Right (refer ASX release 1 February 2018), ground electromagnetic surveys (refer ASX release 3 July 2018) and drilled four diamond drill holes at Rok Optel (refer ASX release 24 October 2018).



**Figure 5: Simplified geology map showing prospecting rights in the Jacomynspan Area held and under application by the Company, known Ni-Cu deposits in the Jacomynspan Ni District and noted mineral occurrences as per published data from South African Council for Geoscience.**

<sup>4</sup> Originally reported in ASX release of 14 July 2016: "Orion Expands South African Portfolio after Securing Advanced and Highly Prospective Nickel-Copper Project" available to the public on [www.orionminerals.com.au/investors/asx-jse-announcements](http://www.orionminerals.com.au/investors/asx-jse-announcements). Competent Person: Mr. Errol Smart. Orion confirms it is not aware of any new information or data that materially affects the information included above. Orion confirms that the form and context in which the Competent Person's findings are presented here have not been materially modified.

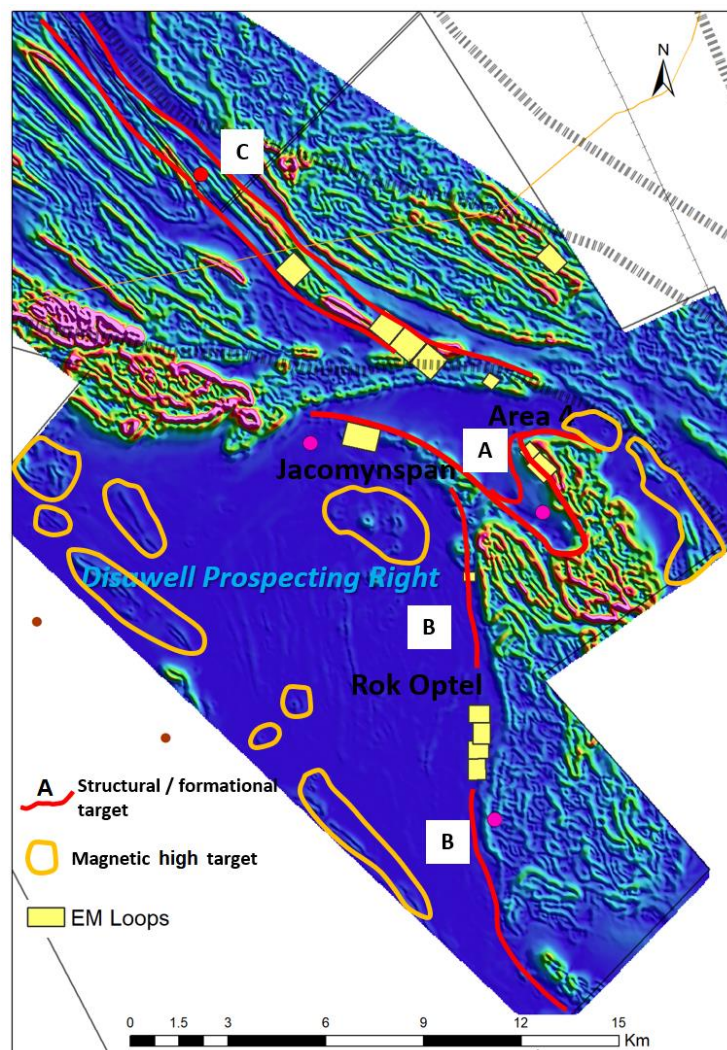
### Desktop studies and planning

Desktop studies were undertaken during the reporting period with several new geophysical targets identified and existing targets confirmed. Geophysical targets include:

- Untested subtle aeromagnetic highs similar to magnetic signatures associated with known mineralisation on the prospecting right; and
- Structures that host known Ni-Cu mineralisation (Figure 6).

Drill ready targets include both untested ground EM targets at Area 4 (refer ASX release 3 July 2018) and downhole EM targets at Rok Optel (refer ASX release 24 October 2018). Once field operations resume, the Company intends to test these targets by means of mapping, soil sampling, ground geophysics and drilling.

Following Quarter end, on 13 July 2020, the Company announced that it has entered into an agreement whereby Orion (or its nominated subsidiary) will acquire the remaining minority interests in the Jacomynspan Nickel-Copper-PGE Project held by two companies, Namaqua Nickel Mining (Pty) Ltd and Disawell (Pty) Ltd. Refer to the Corporate Section for additional detail.



**Figure 6: Map showing prospects and geophysical targets for Ni bearing magmatic bodies overlain on a aeromagnetic image on the Disawell Prospecting Right.**

## Masiqhame Project Area

Contiguous to the north of the Namaqua-Disawell Project, this project is defined in terms of the Masiqhame tenement holding and includes the Kantienpan and Bokspits Cu-Zn VMS deposits (Figure 7).

With its known VMS deposits, numerous Cu-Zn mineral occurrences and regional geological setting, the area offers potential for new VMS Cu-Zn and magmatic Ni-sulphide discoveries. It is common for VMS districts to have small Cu-Zn deposits clustering close to a large deposit where on the Masiqhame Prospecting Right, the larger deposit is still to be discovered.

During the Quarter, work was restricted to desktop studies on existing and historic data. Recommendations include:

- Drill testing of untested ground EM anomalies in the Bokspits area (refer ASX release 24 December 2018);
- Drill testing of the Kantienpan deposit down dip (refer ASX release 25 January 2017);
- High resolution mag surveys over selected areas;
- Systematic analysis of SkyTEM™ data over the identified paleo-seafloor setting (refer ASX release 1 February 2018);
- Soil sampling over the paleo-seafloor setting; and
- Stratigraphic and litho-geochemical profiles over selected areas to pinpoint the stratigraphic setting of the prospective horizon.

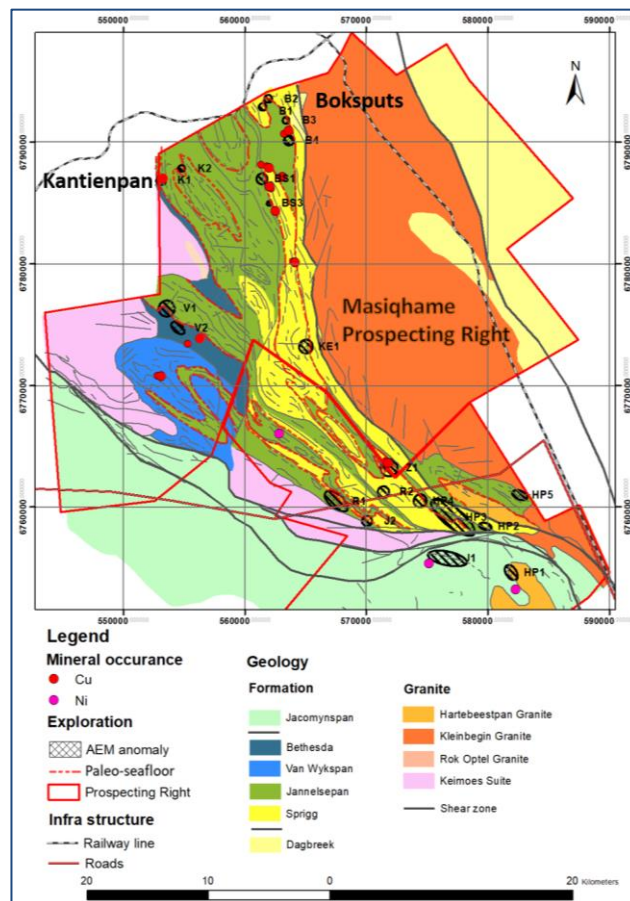


Figure 7: Solid geological map of the Masiqhame Area showing Mineral occurrences, prospects, SkyTEM™ anomalies and the paleo-seafloor setting.

## Marydale Gold-Copper Project (Witkop)

The Company has exploration rights over the Marydale Gold-Copper Project located 60km north of the Prieska Project. A Mining Right Application was submitted to the DMRE during the previous Quarter and a response is awaited.

## Australian Projects

### Fraser Range – Nickel-Copper Projects (Western Australia)

Orion maintains a sizeable tenement package in the Fraser Range Province of Western Australia in joint venture with IGO Limited (ASX: IGO) (refer ASX release 10 March 2017). Under the terms of the joint venture, IGO is responsible for all exploration on the tenements and provides regular updates to Orion on activities and results. Importantly, Orion maintains an exposure to the ongoing exploration and development of the Fraser Range Project without additional financial commitment, given that Orion is free carried through to the first pre-feasibility study on any of the tenements.

Exploration activity conducted by IGO within the IGO – Orion Minerals JV (IGO - ORN JV) during the Quarter included infill aircore drill planning, ground reconnaissance and infill aircore drilling within tenements E39/1654, E39/1653, E69/2707, E28/2596 and E69/2379 (Figure 8). Assay results from the drilling are pending.

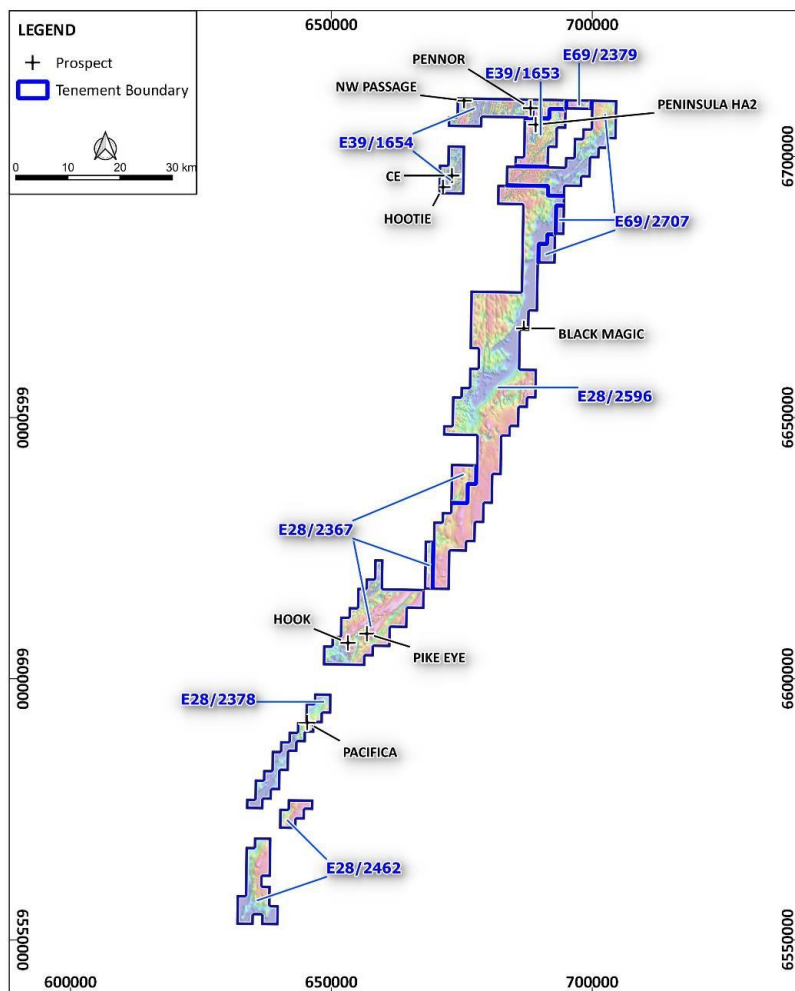
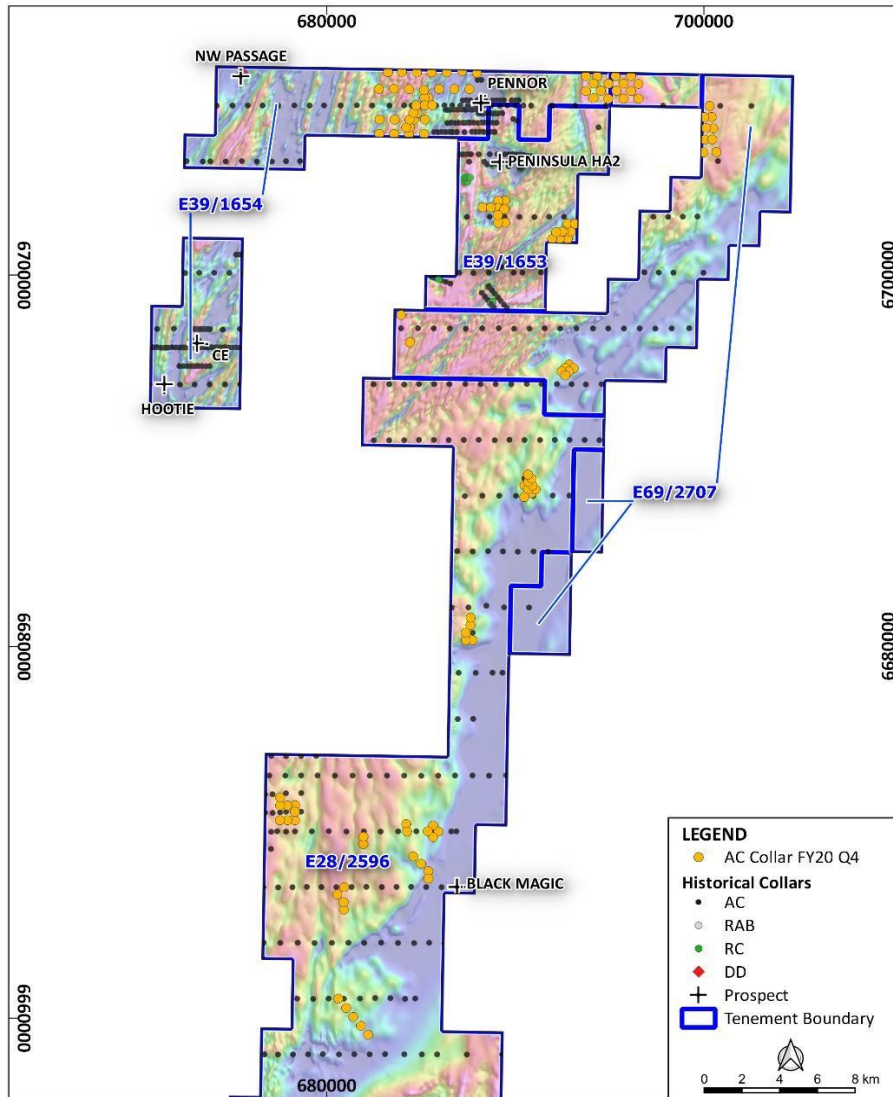


Figure 8: An overview of tenements contained within the IGO-ORN JV, underlain by aeromagnetics (TMI - total magnetic intensity). The prospects identified are those that are referred to within report.

## Completed Aircore Drilling

A total of 119 aircore holes were drilled during the Quarter at the Peninsula, Pennor West and Black Magic prospects across tenements E39/1654, E39/1653, E69/2707, E69/2379 and E28/2596 (Figure 9). Drilling near the Peninsula and Pennor West areas targeted the Peninsula Intrusive Complex whilst the remaining infill drilling targeted discrete gravity highs adjacent to zones of anomalous geochemistry. 54 of the holes intersected mafic and ultramafic rocks. Assay results from the mafic-ultramafic rocks are awaited and will be reviewed by IGO to determine the prospectivity for magmatic nickel-copper sulphide mineralisation.



**Figure 9: Infill aircore drilling completed during the period underlain by aeromagnetics (TMI) with historical drill collars illustrated.**

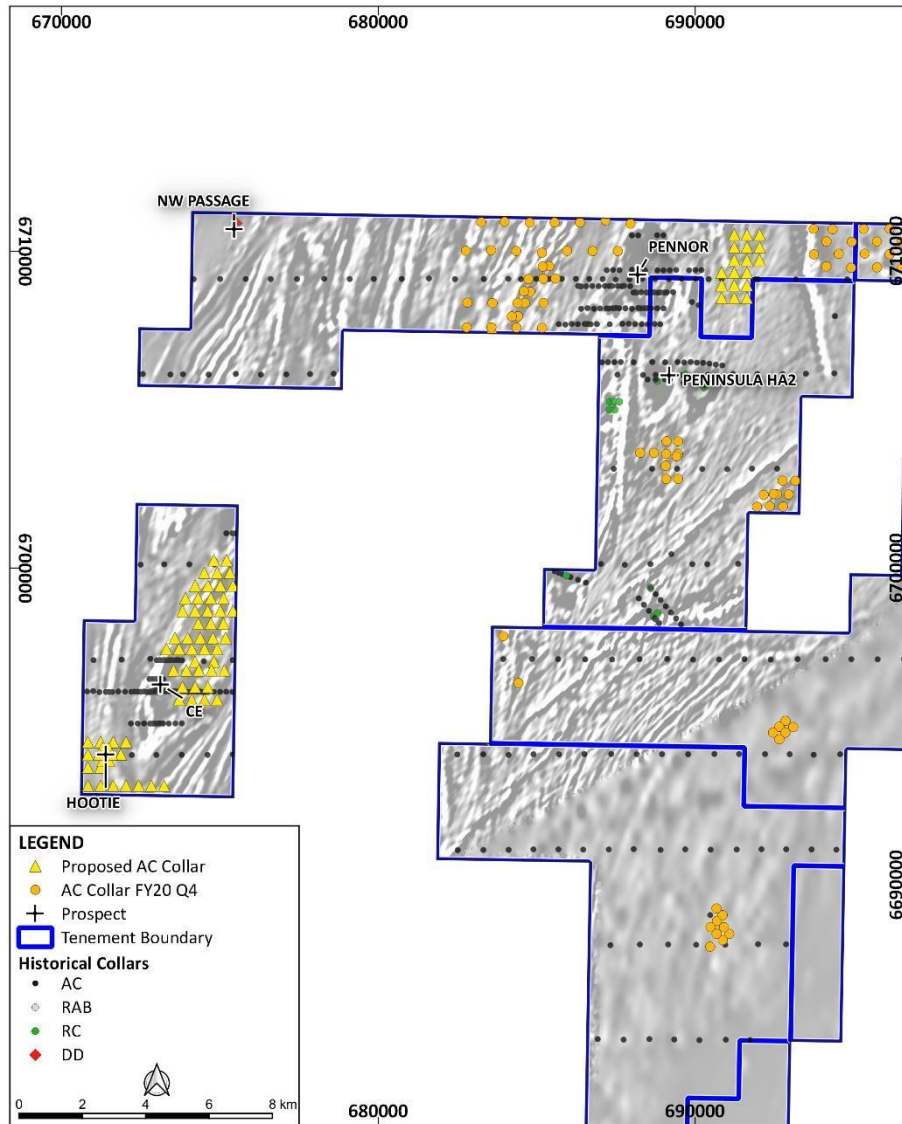
During April, IGO designed and peer reviewed an infill aircore drilling program for 2020. The infill aircore program was designed to test and define the top-of-basement expression of existing geochemical, geophysical and geological targets.

The main areas proposed for infill aircore drilling within the IGO-ORN JV project area are illustrated within Figure 10 and Figure 11 and include:

- Hootie and CE North prospects in the northern extent of the project area;
- An extension to the Pennor / Peninsula prospect area; and
- Kanandah Station Trend prospects; Pike, Pike-Eye and Old Soldiers.

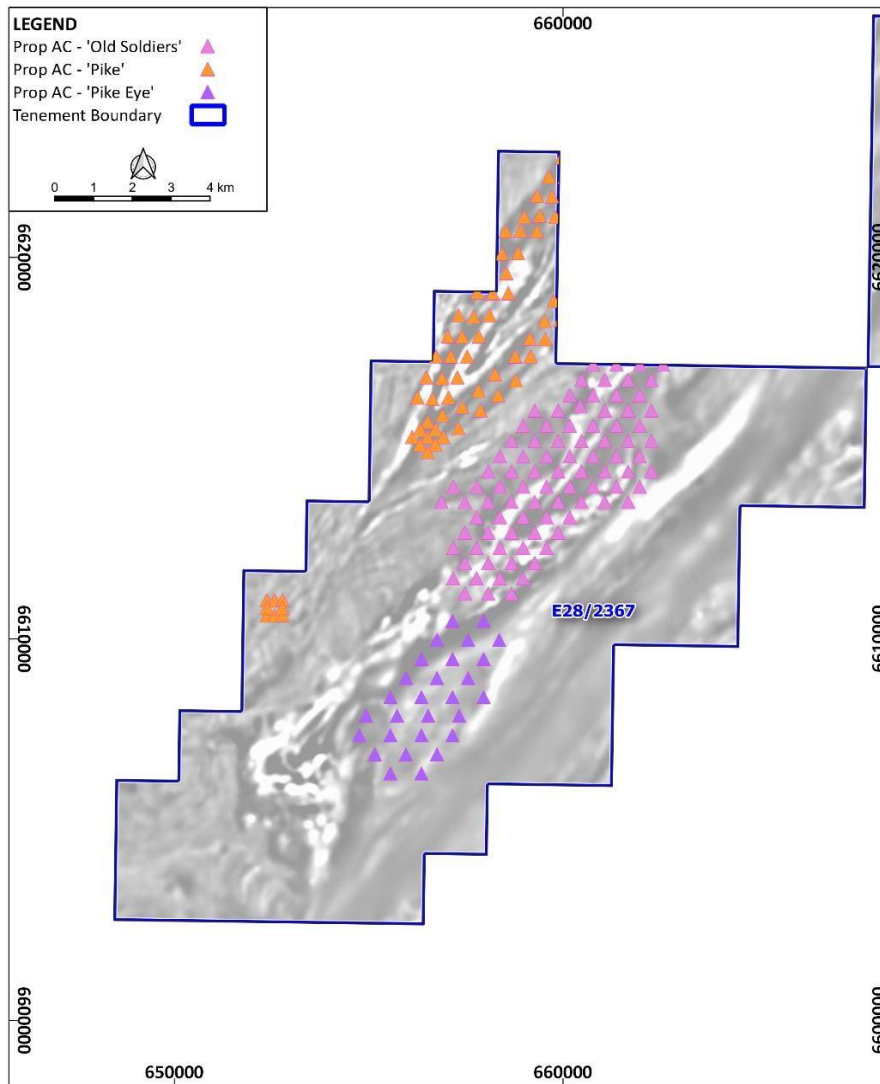
The Hootie prospect is defined by an area of anomalous geochemistry situated proximal to two shear zones and a fold hinge structure. These combined attributes present this as a favourable prospect for magmatic nickel-copper mineralisation.

CE North is focused within magnetic feature previously targeted by Orion, where favourable host rocks were intersected. This infill aircore drilling program will cover an area devoid of drilling and ground moving-loop survey. A successful outcome from this infill will lead to moving-loop electromagnetic survey (MLEM) and/or diamond drill testing.



**Figure 10: Planned aircore drilling pertaining to the Peninsula intrusive complex, CE North and Hootie (underlain by aeromagnetics, TMI RTP 1VD0). The infill aircore drilling will target areas outside of the previous work completed by Orion over coincident magnetic-low and gravity-high features.**





**Figure 11: Planned aircore drilling for prospects located within Kanandah Station. Pike aircore drilling will target the structurally complex fold hinge and coincident magnetic low and gravity high trends along each limb. The standalone aircore infill southwest of Pike will follow up a coincident Ni-Cu anomaly previously intercepted within an interpreted mafic intrusion. The Old Soldiers and Pike Eye infill aircore will aim to identify key lithologies associated with magmatic Ni-Cu for future potential targeted diamond drilling to follow up.**

### NW Passage Reconnaissance

Ground reconnaissance at NW Passage prior to planned infill aircore drilling commenced in May. With potential artifacts identified, it was recommended that a consultant be appointed to carry out a heritage survey to better delineate areas of cultural significance before the proposed aircore drill program.

### Proposed Diamond Drilling

A review of the diamond drill targets and the results of the drilling in 2019 has been undertaken. Currently there are five diamond drill targets planned on the IGO - ORN JV tenements for 2020/2021. Four of these targets are within Kanandah Station. The diamond drill program within Kanandah Station has been delayed to Q3 and Q4 of the 2020/2021 year, to enable access tracks to be improved and for a reliable source of water to be developed, to support drilling activities.

### Walhalla Gold and Polymetals Project (Victoria)

No field or exploration work was carried out on the Victoria Project during the Quarter.

During the Quarter, the Company continued to progress its two exploration licence applications over prospective areas of Walhalla. The exemption granted by Earth Resources Regulation over the area formally licenced as MIN 5487, remains in place with the Company's re-applications for a mineral licence over the area of this previous mining licence well advanced. The Company's aim is to maintain tenure over this area and to protect the Company's gold mineral resources.

### Tenement Table

Tenement	Project	Ownership Interest	Change in Quarter	Joint Venture Partner
<b>South Africa</b>				
NC30/5/1/1/2/10445PR	PCM	0%	Expiry	---
NC30/5/1/2/2/10244PR	Marydale	0%	Expiry	---
NC30/5/1/1/2/11841PR	Vardocube	70.00%	---	---
NC30/5/1/1/2/11850PR	Bartotrax	70.00%	---	---
NC30/5/1/1/2/10138MR	Prieska Copper Zinc Mine	70.00%	---	---
NC30/5/1/1/2/11840PR	Doonies Pan	70.00%	---	---
NC30/5/1/1/2/10032MR	Namaqua-Disawell	18.50%	---	Namaqua Nickel Mining (Pty) Ltd
NC30/5/1/1/2/10938PR	Namaqua-Disawell	18.50%	---	Disawell (Pty) Ltd
NC30/5/1/1/2/11010PR	Namaqua-Disawell	18.50%	---	Disawell (Pty) Ltd
NC30/5/1/1/2/12292PR	Masiqhame	49.00%	---	Masiqhame 855 (Pty) Ltd
<b>Western Australia</b>				
E28/2367	Fraser Range	30%	---	IGO Limited
E28/2378	Fraser Range	30%	---	IGO Limited
E28/2462	Fraser Range	30%	---	IGO Limited
E28/2596	Fraser Range	30%	---	IGO Limited
E39/1653	Fraser Range	35%	---	IGO Limited & Geological Resources Pty Ltd
E39/1654	Fraser Range	10%	---	IGO Limited & NBX Pty Ltd
E69/2379	Fraser Range	10%	---	IGO Limited & Ponton Minerals Pty Ltd
E69/2380	Fraser Range	10%	---	IGO Limited & Ponton Minerals Pty Ltd
E69/2707	Fraser Range	10%	---	IGO Limited & Ponton Minerals Pty Ltd

## Corporate

### Cash and Finance

Cash on hand at the end of the Quarter was \$1.2M. Payments made to related parties and their associates during the Quarter was \$0.12M and relates to Director fees and consulting fees, as listed in Section 6 of the Company's Quarterly Cash Flow Report (Appendix 5B).

### Tembo Capital

#### Loan Facility

On 14 May 2020, Orion announced that a \$1.0M unsecured convertible loan facility had been agreed with Tembo Capital Mining Fund II LP (**Tembo**) (**Loan Facility**). Under the terms of the Loan Facility, the Loan Facility amount, interest and any amount capitalised under the Loan Facility (**Outstanding Amount**) will be automatically set off against the amount to be paid by Tembo for the issue and allotment of

ordinary shares in Orion (**Shares**) to Tembo under any capital raising undertaken by Orion on or before 31 October 2020 (**Subscription Amount**) (subject to Tembo Board approval and any shareholder and regulatory approvals required to permit Tembo to participate in any capital raising). Following this, on 29 June 2020 the Company and Tembo agreed to increase the Loan Facility amount by \$1.0M to \$2.0M.

If Orion does not undertake a capital raising by 31 October 2020, Tembo may elect to receive Shares in repayment of the Outstanding Amount, at an issue price of the 10 trading day ASX VWAP of the Shares, prior to the date that Tembo issues a conversion notice to Orion (subject to shareholder and regulatory approvals).

The key terms of the Loan Facility agreement are:

- **Loan amount** – \$2.0M;
- **Interest** – capitalised at 12% per annum;
- **Set-off under capital raising** – the Outstanding Amount will be automatically set off against the amount to be paid by Tembo for the issue and allotment of Shares to Tembo under any capital raising undertaken by Orion on or before 31 October 2020 (Subscription Amount) (subject to shareholder and regulatory approvals required to permit Tembo to participate in any capital raising);
- **Conversion** – if Orion does not undertake a capital raising by 31 October 2020 (**Repayment Date**), Tembo may elect to receive Shares in repayment of the Outstanding Amount at an issue price of the volume weighted average price (**VWAP**) of Shares on the ASX over the ten trading days prior to the date that Tembo issues a conversion notice to Orion (subject to shareholder and regulatory approvals);
- **Repayment** – if Orion does not undertake a capital raising by the Repayment Date and Tembo does not elect to receive Shares in repayment of the Outstanding Amount by the Repayment Date, or if all regulatory and shareholder approvals required to permit Tembo to participate in any capital raising or to be issued Shares in repayment of the Outstanding Amount have not been obtained by the later of the Repayment Date and specified dates to obtain the required shareholder and regulatory approvals, the Outstanding Amount is to be repaid within 10 business days;
- **Security** – the Loan Facility is unsecured;
- **Undertakings** – Orion has provided undertakings which are customary for an agreement of this type, including in relation to the incurring of debt, granting of security, compliance with laws, and operational matters; and
- **Warranties** – customary warranties for a transaction of this nature are given by each of Orion and Tembo.

As at 30 June 2020, the balance of the Loan Facility was \$2.01M (including capitalised interest).

#### Convertible Loan Facility

In January 2019, Orion announced that a \$3.6M unsecured convertible loan facility had been agreed with Tembo (**Convertible Loan Facility**).

Under the terms of the Convertible Loan Facility, Tembo may elect for repayment of the balance of the Convertible Loan Facility (including capitalised interest and fees) (**Outstanding Amount**) to be satisfied by the issue of Shares by the Company to Tembo at a deemed issue price of \$0.026 per Share (subject to shareholder and regulatory approvals). The Outstanding Amount must be repaid by 31 October 2020 (previously 25 June 2020), or if Tembo elects to receive Shares in repayment of the Outstanding Amount in lieu of payment in cash, the date on which the Shares are to be issued to Tembo (or such later date as may be agreed between Tembo and Orion) (refer ASX release 25 January 2019).

As at 30 June 2020, the balance of the Convertible Loan Facility was \$4.58M (including capitalised interest and fees).

### Anglo American sefa Mining Fund – Loan

On 2 November 2015, Prieska Copper Zinc Mine (Pty) Ltd (**Prieska**) (formally Repli), (a 70% owned subsidiary of Orion) and Anglo American sefa Mining Fund (**AASMF**) entered into a ZAR14.25M loan agreement for the further exploration and development of the Prieska Project (**Loan**). Under the terms of the Loan, on 1 August 2017, AASMF advanced ZAR14.25M to Prieska. The key terms of the Loan are:

- Loan amount: ZAR14.25M (~\$1.2M);
- Interest: Prime lending rate in South Africa;
- Repayment date: 30 April 2021 (previously 31 July 2020); and
- Security: 29.17% of the shares held in Prieska by Agama Exploration and Mining (Pty) Ltd (a wholly owned subsidiary of the Company), have been pledged as security to AASMF for the performance of Prieska's obligations in terms of the Loan.

Following Quarter end, on 29 July 2020, the Company announced that it has reached agreement with AASMF to extend the term of the Loan from 31 July 2020 to 30 April 2021.

As at 30 June 2020, the balance of the Loan was ZAR19.0M (~\$1.6M) (including capitalised interest).

### Jacomynspan Project

Following Quarter end, on 13 July 2020, the Company announced that it has entered into an agreement whereby Orion (or its nominated subsidiary) will acquire the remaining minority interests in the Jacomynspan Nickel-Copper-PGE Project (South Africa) (**Jacomynspan Project**) held by two companies, Namaqua Nickel Mining (Pty) Ltd (**Namaqua**) and Disawell (Pty) Ltd (**Disawell**) (**Agreement**).

In September 2017, Orion entered into a binding earn-in agreement to acquire the earn-in rights over the Jacomynspan Project held by Namaqua and Disawell.

Orion's earn-in is held via its wholly-owned subsidiary company, Areachap Investments 3 S.À R.L, and its South African subsidiary company, Area Metals Holdings No 3 (Pty) Ltd (**AMH3**).

Since finalising the earn-in agreement, AMH3 has advanced exploration programs on the Jacomynspan Project, with expenditure held in a shareholder loan account and AMH3 having reached an earn-in right stage, which will see its shareholding increase by a further 25% interest (increasing its total interest to 50%) and, upon receipt of regulatory approval, AMH3 being issued with the additional shares earned. Orion is the manager and operator of the joint venture.

The key terms of the Sale Agreement are:

- **Purchase Assets**
  - Orion will acquire all of the:
    - Remaining issued shares in Namaqua and Disawell held by the Namaqua and Disawell minority shareholders (**Selling Shareholders**); and
    - Claims of any nature which any of the Selling Shareholders may have against either Namaqua and/or Disawell, including (without limitation) the Shareholders' loans held by each Selling Shareholder and the founders' royalty held by each founding Shareholder, (collectively, **Sale Equity**).

- **Purchase Price**

- The purchase price payable by Orion to the Selling Shareholders for the Sale Equity will be a total amount of \$0.75M (**Purchase Price**);
- The Purchase Price will be settled by way of Orion issuing its ordinary shares (**Shares**) to each Selling Shareholder (**Consideration Shares**), where:
  - The Purchase Price will be converted into South African Rand (**ZAR**) at the average ZAR/AUD exchange rate in the 30 days prior to the date on which the last of the Suspensive Conditions (refer below) is fulfilled (**Fulfilment Date**); and
  - The issue price of the Consideration Shares will be equal to the 30-day volume weighted average price of the Orion Shares traded on the Johannesburg Stock Exchange as at the Fulfilment Date.
- The Consideration Shares will be issued by Orion to the Selling Shareholders within 10 business days after the Fulfilment Date (**Closing Date**) against the transfer of the Sale Equity to Orion.

- **Suspensive Conditions**

- Orion and the Selling Shareholders (**Sale Parties**) entering into comprehensive formal written agreement/s incorporating the principal terms and conditions set out in the Offer Letter and such other terms and conditions as are usual for a transaction of this nature (**Sale Agreement**);
  - Approval and/or ratification of the Sale Agreement and the implementation of the proposed transaction by the board of directors or trustees (if and where applicable) of each the Sale Parties;
  - Approval, where required, from Orion's shareholders for the proposed transaction;
  - Receipt of any and all regulatory approvals (on terms reasonably acceptable to the Sale Parties) as may be required for the purposes of implementing the proposed transaction; and
  - There being no material adverse change in the business, operations, assets, compliance, position (financial, trading or otherwise) or prospects of either Namaqua or Disawell between the date of signature of the Sale Agreement and the Closing Date.
- Such other suspensive conditions, undertakings, warranties and terms and conditions as would be standard and customary to include in transactions of this nature.

Refer to the Namaqua Disawell Project Area Section for further information in relation to the Jacomynspan Project.

This Quarterly Report is authorised by the Board.