



Orion Minerals

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SkyTEM™ Survey underway at Okiep Copper Project

Survey targeting Cu sulphide mineralisation hosted in mafic intrusive bodies

- ▶ SkyTEM™ Survey covering 1,827km² underway at Okiep Copper Project.
- ▶ Orion's high priority area of 857km² will be surveyed at 150m line spacing.
- ▶ Survey expected to take 5-6 weeks to complete.

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

"It's almost unthinkable that a district that has produced more than 2 million tonnes of copper from sulphide ore with associated pyrrhotite has never been surveyed with airborne electromagnetic (EM) methods. Modern explorationists consider high power airborne EM as a primary exploration tool for this style of mineralisation.

"The powerful geophysical tools that we are using will be targeting mafic intrusive bodies with high magnetite content, that we expect will be detected with natural magnetism and that will have small zones of conductive pyrrhotite content associated with copper sulphides, that will be detected by the powerful EM instruments.

"We are also surveying the surrounding area in collaboration with Council for Geosciences, in order to identify the district scale structural controls on emplacement of the mafic intrusive bodies, that will assist all explorers working in the district, which we believe has potential to return to being a major copper producing district."

Orion Minerals Limited (**ASX/JSE: ORN**) (**Orion** or the **Company**) is pleased to announce that the Okiep District SkyTEM™ helicopter borne geophysical survey has commenced. Importantly, the SkyTEM™ survey includes the Okiep Copper Project area, located 570km north of Cape Town in the Northern Cape Province of South Africa, which is currently under option to Orion (refer ASX release 2 February 2021).

Okiep Copper Project

The combined Council for Geosciences (**CGS**) and Orion field teams have confirmed that the recently announced SkyTEM™ survey has commenced (refer Figure 1 and ASX release 1 June 2021). The regional survey will cover an area of approximately 1,827km², with approximately 1,073 line kms flown at 1km line spacing. Orion's focussed exploration area of approximately 857km² will have 6,157 line kms flown at 150m line spacing (Figure 2).

The average height of the helicopter borne survey will range between 35m – 45m above ground level, collecting high quality data, including electromagnetic data, total magnetic intensity and residual magnetic intensity data. Various processed outputs and derivatives will be available to assist in target generation and prioritisation.

The instruments being used are the deep penetrating SkyTEM312HP with the 12.5 Hz, low frequency system and the Geometrics Caesium Vapour type 822A total intensity magnetometer.

The survey is expected to take approximately 5 - 6 weeks to complete, weather permitting.

The geophysical data collected will be used to map out structure and potential mineralised mafic intrusives.

Given the significant historic copper production and identified resources in the district, Orion is confident this first-time employment of high powered airborne electromagnetic (**EM**) tools will assist in identifying high priority drill targets aimed at the discovery of new high-grade copper deposits.



Figure 1: SkyTEM™ fly-over at Carolusberg Mine (defunct shaft in foreground).

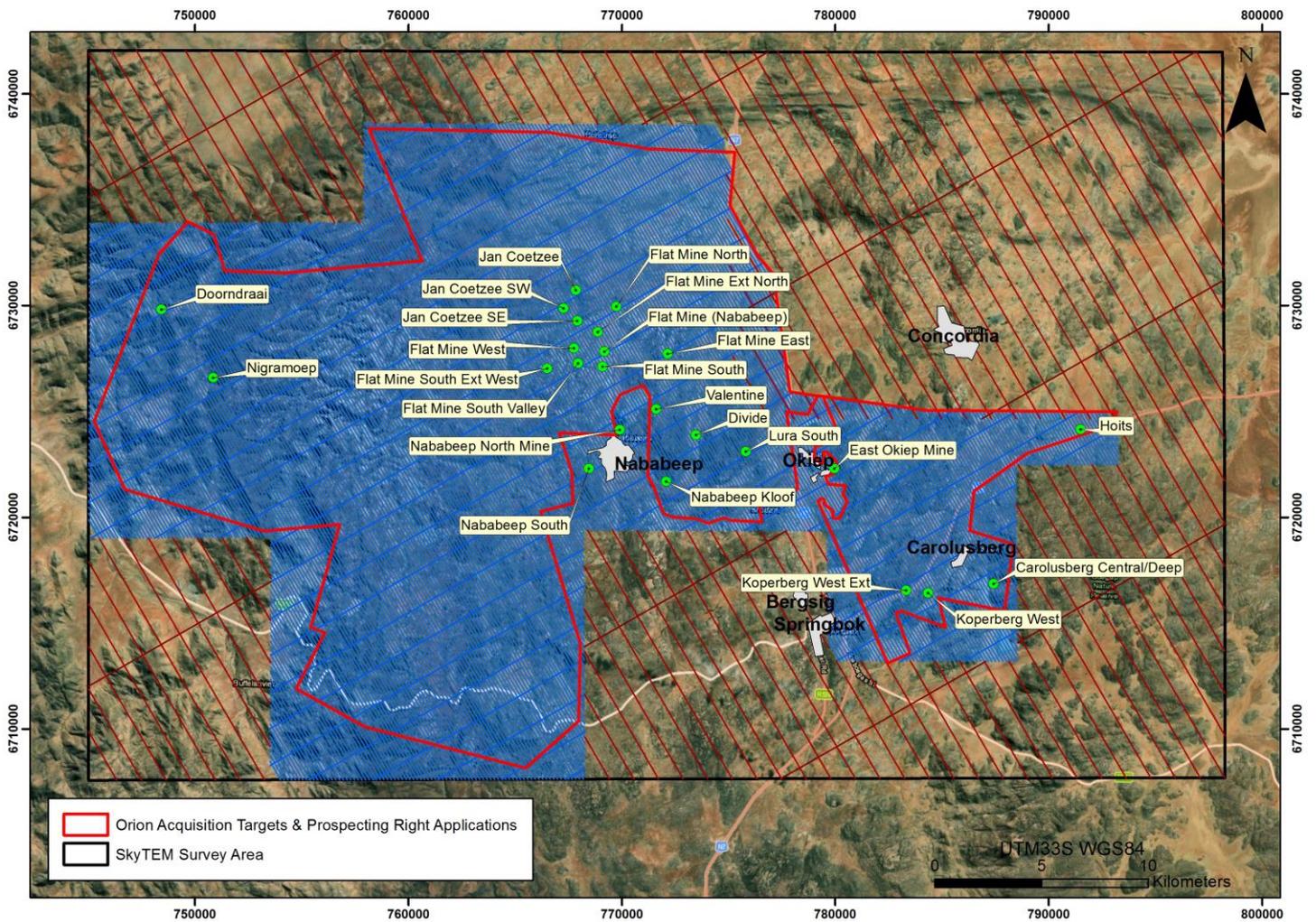


Figure 2: Okiep Copper Project – SkyTEM™ geophysical survey (also showing known historical mines and Cu prospects).

For and on behalf of the Board.



Errol Smart
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