



ASX/Media Release

INVESTIGATOR  
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19<sup>th</sup> November 2019

## Maslins Geophysical Program Enhances Target Drilling to commence January 2020

### Highlights

- Maslins gravity and magneto-telluric data interpretation completed
- New geophysical data reveals clear and coincident relationship between gravity and magneto-telluric anomalies at the Maslins IOCG target
- Increased target confidence confirms drill hole locations and designs
- Drilling on schedule to commence January 2020

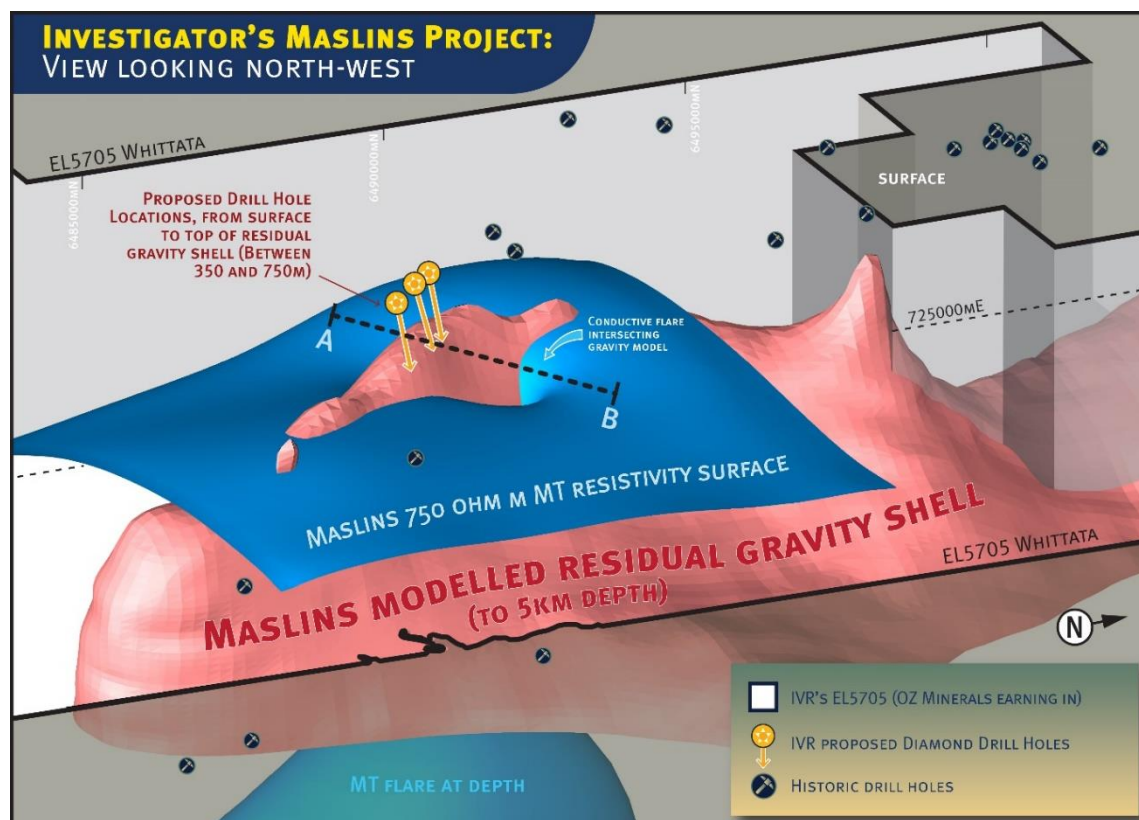
Investigator Resources Limited (“Investigator”) (ASX:IVR) is pleased to advise that the interpretative work on recently acquired gravity and magneto-telluric (“MT”) data has further refined the Maslins target. Drill testing by Investigator and its project partner, OZ Minerals Limited (“OZ Minerals”) (ASX:OZL) will commence in January 2020.

Investigator’s Managing Director, Andrew McIlwain said: ***“The new geophysical data has enabled us and our partner OZ Minerals to commit to drill the Maslins target. The detailed geophysical data acquired during the October survey has enabled refinement of the interpreted bodies and has provided confirmation that the conductive flare previously identified is coincident with the gravity anomaly in the target area. This work has allowed improved targeting for drill testing.*”**

***“A series of drill holes have been proposed, with the Exploration Management Committee approving 3 holes to be drilled under the first stage of the Heads of Agreement with OZ Minerals. A Heritage Survey is scheduled for later this month in preparation for rig mobilisation and drilling in January 2020”.***

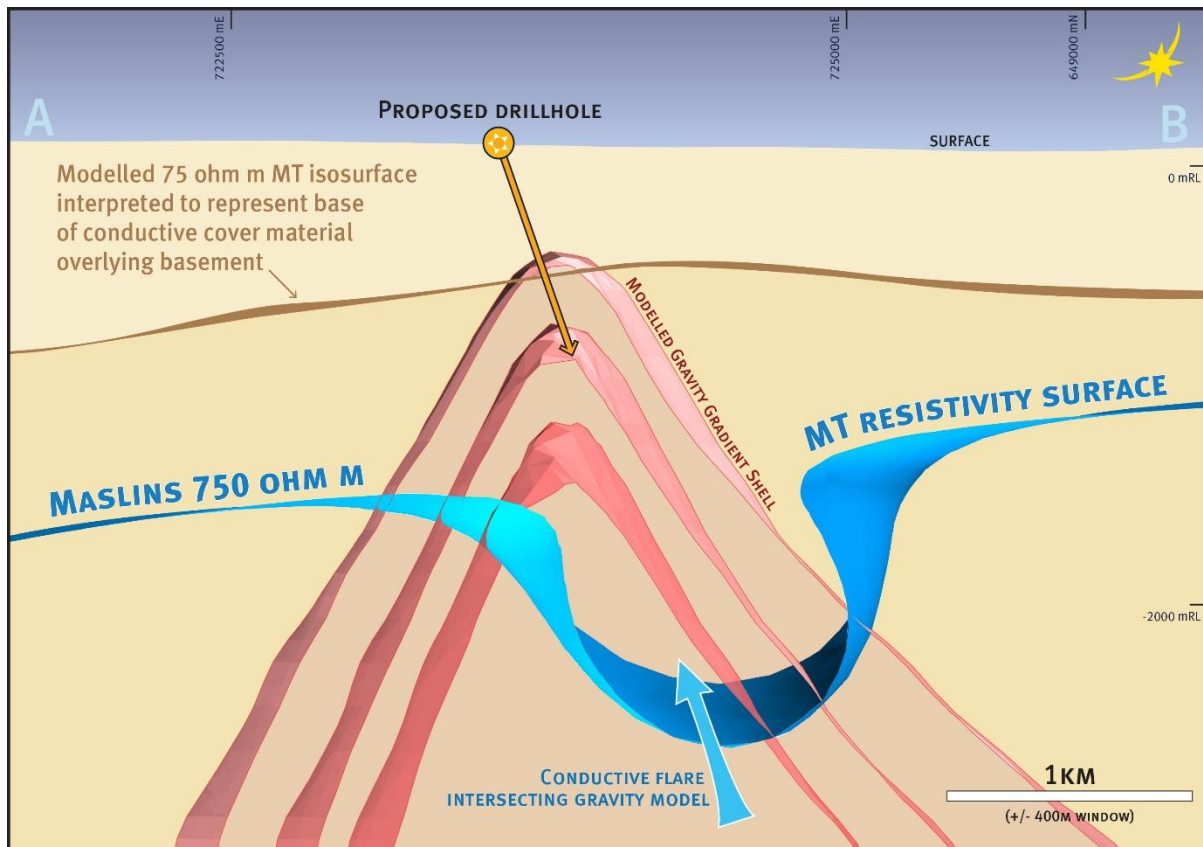
As announced on 3 October 2019, data was acquired from an additional 233 gravity and 58 MT stations across the Maslins anomaly – focussing on the southern extent of the target. This work was undertaken as the first component of the agreement with OZ Minerals. The

The recent infill MT surveying, which incorporated both Audio-MT and Broadband-MT stations has narrowed the radius of the MT conductive feature from an approximately 6 km to 2km.



**Figure 1:** Coincident MT 750ohm m resistivity inversion isosurface and gravity inversion shells at Investigator's Maslins IOCG Project with planned drill holes shown.

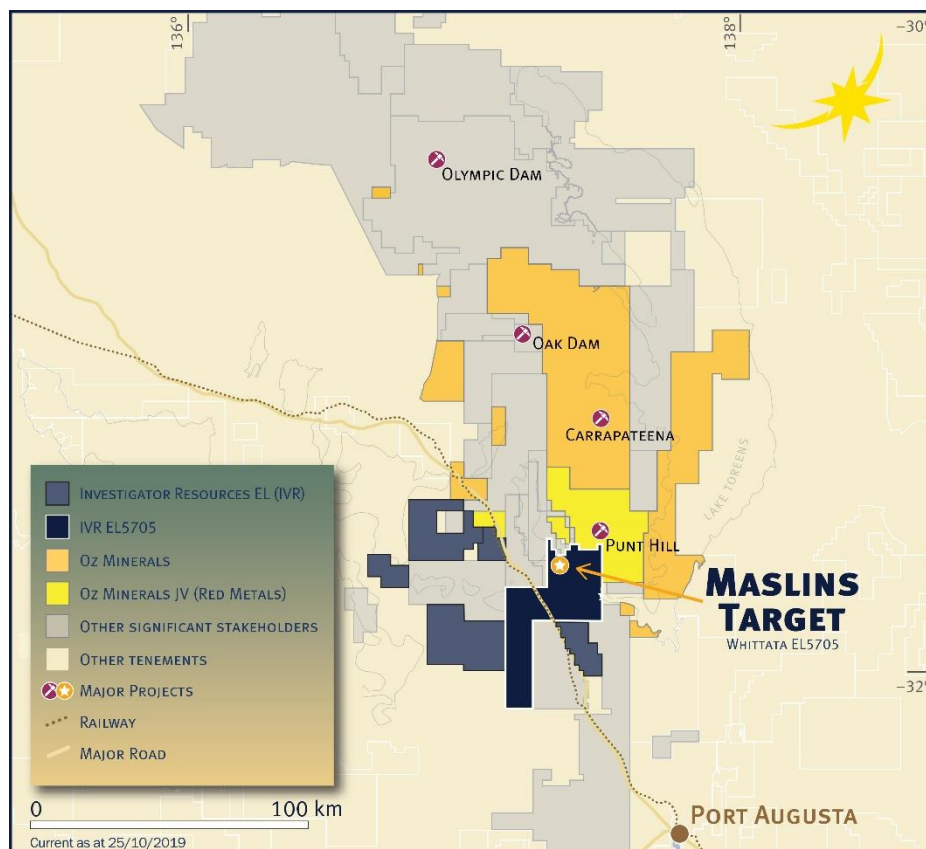
Figure 2, below, depicts a cross-section across the Maslins anomaly showing the interpreted MT resistivity inversion surfaces (750ohm m) in blue and the residual gravity surfaces in brown. Planned 1,000m length drill holes are shown piercing the target at an interpreted depth of between 600m and 800m below surface and are directed towards the MT conductive feature.



**Figure 2:** *Maslins anomaly cross section showing gravity and MT surfaces and planned drill holes.*

In collaboration with OZ Minerals, the planned drill holes have been prioritised and the Heritage Clearance survey for these 3 drill collar locations, as well as a number of alternate and additional holes, are planned to be completed by the end of this month. This provides capacity to continue drilling should the initial holes be deemed successful.

Award of the tender for the drilling program is being finalised with mobilisation scheduled for January 2020.



**Figure 3:** Investigator's tenements and Maslins Target along with OZ Minerals' interests, including their Carrapateena Project, Stuart Shelf, SA.

#### About Investigator Resources

Investigator Resources Limited is a metals explorer with a focus on the opportunities for silver-lead, copper-gold and other metal discoveries. In addition to the Maslins IOCG Project, Investigator's assets include the 100% owned Paris Silver Project in South Australia and other prospective tenements within the State.

Shareholders are encouraged to stay abreast of the Investigator's announcements by registering on the following weblink address:

<http://www.investres.com.au/subscribe/subscribe.asp>

#### About the OZ Minerals Earn-In

In July 2019 Investigator entered into a Heads of Agreement with OZ Minerals in which OZ Minerals can earn up to a 70% interest in the Maslins IOCG Project through a 3-stage program and the expenditure of \$10 M over 5 years.

Stage 1 of the Earn-In requires Oz Minerals to spend a minimum of \$1.4 M by 12 July 2020.

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## APPENDIX 1

### TABLE 1: Maslins IOCG Target – Nov 2019 MT, Gravity Modelling- JORC 2012

#### Section 1 Sampling Techniques and Data

(Criteria in this section apply to all succeeding sections.)

Criteria	JORC Code explanation	Commentary
<i>Sampling techniques</i>	<ul style="list-style-type: none"> <li><i>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.</i></li> <li><i>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</i></li> <li><i>Aspects of the determination of mineralisation that are Material to the Public Report.</i></li> <li><i>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.</i></li> </ul>	<ul style="list-style-type: none"> <li>Results and interpretations of Geophysical Surveys are being reported.</li> <li>Magnetotelluric Survey was conducted by Zonge Engineering and Research Organisation, a company which specialises in the design, acquisition, processing and interpretation of electrical geophysical surveys.</li> <li>58 Magnetotelluric stations were surveyed on an approximate 1km x 1km grid, with an outer survey ring of stations at 2km spacing. A combination of short read Audio-Magnetotelluric (AMT) and longer read Broadband-Magnetotelluric (BMT) surveys were completed with read times of 4hrs and 12hrs respectively.</li> <li>Infill gravity surveying was completed by Daishsat Ltd a specialist gravity survey company who undertook previous infill survey work on the Maslins area.</li> <li>214 new gravity stations at spacing of between 250 and 500m along 1km lines were surveyed. Stations were located and recorded utilising differential gps system tied into base station survey control that was located with an accuracy of better than 5mm in x,y,z.</li> </ul>
<i>Drilling techniques</i>	<ul style="list-style-type: none"> <li><i>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).</i></li> </ul>	<ul style="list-style-type: none"> <li>Not applicable – geophysical survey and modelling results only discussed in this release.</li> </ul>
<i>Drill sample recovery</i>	<ul style="list-style-type: none"> <li><i>Method of recording and assessing core and chip sample recoveries and results assessed.</i></li> <li><i>Measures taken to maximise sample recovery and ensure representative nature of the samples.</i></li> <li><i>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.</i></li> </ul>	<ul style="list-style-type: none"> <li>Not applicable – geophysical survey and modelling results only discussed in this release.</li> </ul>
<i>Logging</i>	<ul style="list-style-type: none"> <li><i>Whether core and chip samples have been geologically and</i></li> </ul>	<ul style="list-style-type: none"> <li>Not applicable – geophysical survey and modelling results only</li> </ul>

Criteria	JORC Code explanation	Commentary
	<p><i>geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.</i></p> <ul style="list-style-type: none"> <li><i>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</i></li> <li><i>The total length and percentage of the relevant intersections logged.</i></li> </ul>	discussed in this release.
Sub-sampling techniques and sample preparation	<ul style="list-style-type: none"> <li><i>If core, whether cut or sawn and whether quarter, half or all core taken.</i></li> <li><i>If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry.</i></li> <li><i>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</i></li> <li><i>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</i></li> <li><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></li> <li><i>Whether sample sizes are appropriate to the grain size of the material being sampled.</i></li> </ul>	<ul style="list-style-type: none"> <li>Not applicable – geophysical survey and modelling results only discussed in this release.</li> </ul>
Quality of assay data and laboratory tests	<ul style="list-style-type: none"> <li><i>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</i></li> <li><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></li> <li><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></li> </ul>	<p><b>Magnetotellurics:</b></p> <p>Receiving equipment is Phoenix Geophysics MTU-5A receivers, featuring 5 input channels and capable of recording in 10kHz-DC frequency range with 24-bit resolution and up to 24000 samples per second. Timing accuracy - +/-100ns, with oven-controlled crystal oscillator synchronized to GPS.</p> <p>Sensors: copper sulphate ceramic pots for electric field, low noise, non-polarizing. Phoenix MTC-150L coils, with 10kHz-10000s range and 25mv/nT sensitivity.</p> <p>The receivers have their own built-in GPS receivers, which can be used for both timing synchronization and positioning information. Coordinates get recorded in WGS84 system with accuracy of around 5 meters. An additional DGPS with decimeter accuracy was used to collect coordinates of all 5 pots on every site (4 pots for actual E-field electrodes and one extra local pot). Those coordinates are in WGS84 coordinate system with UTM projection used.</p> <p>MT data qa/qc and verification was undertaken by CGG Geoscience who are a specialist magnetotelluric modelling organisation. CGG analysed all data and referred any erroneous recordings to Zonge for resurveying.</p>

Criteria	JORC Code explanation	Commentary
		<p>CGG provided confirmation of data acceptability prior to Zonge demobilisation from site. 3-D Modelling and interpretation utilised the 58 stations from the current survey in addition to a further 17 AUSLamp public MT data stations that were located within the region. A nominal data frequency range from 10Khz to 0.001Hz was used. MT soundings were subsampled for inversion to 5 frequencies per decade, with data editing/masking performed on the original frequency axis considered. At high frequencies down to 1Hz nearly all MT sites had data included in 3D inversions (ie no masking required), at lower frequencies (&lt;1Hz) more masking was required – CGG commented that the amount of data despite the masking, was still good and as such impact on deeper resolution should only be minor. 3D modelling area was approximately 15km x 10km CGG commented that this is too narrow an area to resolve lateral variation of very deep structures and deep structures modelled need critical analysis, although data at low frequencies clearly indicate that there is a deep resistivity variation. Data was acceptable for shallower modelling which was the focus of this work.</p> <p><b>Gravity:</b> Scintrex CG-5 Autograv gravity meter was used exclusively for field acquisition. Gravity was recorded over two x 20-second stacking times with the instrument monitored for any seismic or instrumental noise or x/y axis tilts. Gravity base control was established with a base station 1120 which was tied to existing Daishsat gravity control at Pimba and tied in to Australian Fundamental Gravity Network (AFGN) stations at Woomera. Data was downloaded on a daily basis through the survey and quality control checked for repeatability of positional and observational data. Base plotting of grid files of AHD elevation, Infinite slab Bouguer and Complete Infinite slab Bouguer (terrain corrected data) to produce residual and first vertical derivative grid data.</p> <p>Modelling of the Gravity data was completed by Wittwer Geophysical Consulting using MGinv3D Software to produce a series of 3-D isoshells, and Modelvision to produce detailed 2.5D block models. Petrophysical parameters used in the modelling were derived from measurements on drillcore from nearby drillholes.</p>

Criteria	JORC Code explanation	Commentary
Verification of sampling and assaying	<ul style="list-style-type: none"> <li>The verification of significant intersections by either independent or alternative company personnel.</li> <li>The use of twinned holes.</li> <li>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</li> <li>Discuss any adjustment to assay data.</li> </ul>	<ul style="list-style-type: none"> <li>Not applicable – geophysical survey and modelling results only discussed in this release.</li> </ul>
Location of data points	<ul style="list-style-type: none"> <li>Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.</li> <li>Specification of the grid system used.</li> <li>Quality and adequacy of topographic control.</li> </ul>	<ul style="list-style-type: none"> <li>MT survey stations were located by GPS with an accuracy of +/-5m which was sufficient given the scale of the survey undertaken.</li> <li>Gravity survey stations were located utilising a Leica System GX1230 dual frequency GNSS receiver for base station. Garmin vehicle mounted GNSS receivers were used for navigation.</li> </ul>
Data spacing and distribution	<ul style="list-style-type: none"> <li>Data spacing for reporting of Exploration Results.</li> <li>Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.</li> <li>Whether sample compositing has been applied.</li> </ul>	<ul style="list-style-type: none"> <li>MT survey data spacing was a nominal 1km x 1km grid, with outer stations at 2km spacing. This spacing was deemed acceptable for objective of defining the existing MT anomaly at higher resolution.</li> <li>Gravity data spacing was at 250m or 500m along 1km spaced lines. Data analysis incorporated this, and other historical data previously reported. New data stations were designed to infill existing coverage and provide additional resolution of the existing anomaly.</li> </ul>
Orientation of data in relation to geological structure	<ul style="list-style-type: none"> <li>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</li> <li>If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.</li> </ul>	<ul style="list-style-type: none"> <li>Not reporting on drilling</li> <li>Gravity and MT data spacing/distribution was planned using existing gravity/magnetic and MT modelling to inform the design of program.</li> </ul>
Sample security	<ul style="list-style-type: none"> <li>The measures taken to ensure sample security.</li> </ul>	<ul style="list-style-type: none"> <li>Not reporting on drilling</li> </ul>
Audits or reviews	<ul style="list-style-type: none"> <li>The results of any audits or reviews of sampling techniques and data.</li> </ul>	<ul style="list-style-type: none"> <li>MT data produced by Zonge was audited independently by CGG during the acquisition stage for suitability of use and was found acceptable.</li> <li>Gravity data was audited by Wittwer Geophysics and found to be acceptable. One station was queried and a terrain correction applied to check and found to be “real” and not an artefact.</li> </ul>



## Section 2 Reporting of Exploration Results

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

Criteria	JORC Code explanation	Commentary
<i>Mineral tenement and land tenure status</i>	<ul style="list-style-type: none"> <li><i>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.</i></li> <li><i>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.</i></li> </ul>	<ul style="list-style-type: none"> <li>EL5705 Whittata, is held 100% by Gawler Resources Pty. Ltd., a 100% owned subsidiary of Investigator Resources Ltd.</li> <li>The tenement is approximately mid-way between Port Augusta and Woomera, South Australia, with the Trans-Australian Railway and Stuart Highway passing mid-way through the tenement.</li> <li>Gawler Resources Pty Ltd has a Native Title Mining Agreement with the Kokatha People. A Heritage Clearance Survey of revised hole collar planned locations is to occur in November, 2019.</li> <li>The tenement is within pastoral lands and a good relationship exists with the pastoral lease holders.</li> <li>The Tenement has been granted to 03/02/2021.</li> <li>There are no known impediments to further exploration within this tenement.</li> </ul>
<i>Exploration done by other parties</i>	<ul style="list-style-type: none"> <li><i>Acknowledgment and appraisal of exploration by other parties.</i></li> </ul>	<ul style="list-style-type: none"> <li>Significant exploration has been conducted across the area, however most has targeted Mt. Gunson-style Cu-Ag.</li> <li>Significant geophysical surveying (magnetic, gravity) has been undertaken by various parties and was utilised in initial modelling by IVR.</li> <li>Two exploration holes drilled by Havilah Resources N.L. in 2002 did not penetrate through Gawler Range Volcanics into the Palaeoproterozoic basement (456m and 266m).</li> <li>Recent modelling by GSSA, through the use of a combination of drillhole data, seismic sections, and other data estimates that a depth of 400-600m is expected to Palaeoproterozoic basement</li> <li>There have been no drillholes within this tenement that have penetrated into the Palaeoproterozoic basement which the Maslins target is interpreted to represent.</li> </ul>
<i>Geology</i>	<ul style="list-style-type: none"> <li><i>Deposit type, geological setting and style of mineralisation.</i></li> </ul>	<ul style="list-style-type: none"> <li>The project area is in the highly prospective Olympic Domain which contains the world-class Olympic Dam Iron-Oxide Copper-Gold-Uranium (IOCGU) mine, the Prominent Hill IOCG mine, the developing Carrapateena IOCG project and a number of other IOCG prospects in the region.</li> <li>Compilation of the publicly available geophysical data indicates a combined gravity and magnetic anomaly. Modelling indicates a</li> </ul>

Criteria	JORC Code explanation	Commentary
		<p>magnetic body with an elevated specific gravity from a depth of approximately 600m to about 1200m, with a lateral extent of up to 6km in a NNW-SSE orientation. It is proposed that this could be an IOCG-related feature or possibly a skarn directly related to an IOCG system beneath the upper Gawler Range Volcanics.</p> <ul style="list-style-type: none"> <li>• Previous drilling in the region has discovered the Punt Hil deposit (20km ENE), essentially a Cu-Au skarn. Other drillholes in the region have also intersected IOCG-related skarns (PRL21/SAR8, 12km north of Maslins). Previous drilling within the current tenement, by Havilah Resources NL and Redmetals Ltd, stopped short of penetrating through the Gawler Range Volcanics. There have been no drillholes within the current tenement that have penetrated through the Gawler Range Volcanics and into the basement below..</li> </ul>
Drill hole Information	<ul style="list-style-type: none"> <li>• A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes: <ul style="list-style-type: none"> <li>○ easting and northing of the drill hole collar</li> <li>○ elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</li> <li>○ dip and azimuth of the hole</li> <li>○ down hole length and interception depth</li> <li>○ hole length.</li> </ul> </li> <li>• 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.</li> </ul>	<ul style="list-style-type: none"> <li>• Not reporting on drilling</li> </ul>
Data aggregation methods	<ul style="list-style-type: none"> <li>• In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated.</li> <li>• Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.</li> <li>• The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> </ul>	<ul style="list-style-type: none"> <li>• Not reporting on drilling</li> </ul>
Relationship between mineralisation	<ul style="list-style-type: none"> <li>• These relationships are particularly important in the reporting of Exploration Results.</li> <li>• If the geometry of the mineralisation with respect to the drill hole</li> </ul>	<ul style="list-style-type: none"> <li>• Not reporting on drilling</li> </ul>

Criteria	JORC Code explanation	Commentary
<i>widths and intercept lengths</i>	<p><i>angle is known, its nature should be reported.</i></p> <ul style="list-style-type: none"> <li><i>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').</i></li> </ul>	
<i>Diagrams</i>	<ul style="list-style-type: none"> <li><i>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.</i></li> </ul>	<ul style="list-style-type: none"> <li>Not reporting on drilling</li> </ul>
<i>Balanced reporting</i>	<ul style="list-style-type: none"> <li><i>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.</i></li> </ul>	<ul style="list-style-type: none"> <li>Not reporting on drilling</li> </ul>
<i>Other substantive exploration data</i>	<ul style="list-style-type: none"> <li><i>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.</i></li> </ul>	<ul style="list-style-type: none"> <li>Publicly available aeromagnetic and gravity data has been compiled and modelled, indicating that there is a significant, unexplained magnetic and gravity anomaly from a depth of 600m to approximately 1200m, and in the order of 6km in length.</li> <li>Very broad-spaced (AusLAMP) MT survey indicates a deep conductive zone in the broad project area and this data was used in recent infill MT modelling.</li> </ul>
<i>Further work</i>	<ul style="list-style-type: none"> <li><i>The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).</i></li> <li><i>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</i></li> </ul>	<ul style="list-style-type: none"> <li>Diamond Drilling of an initial 3 drillholes in conjunction with OZ Minerals is to commence in early 2020.</li> </ul>

**Note, sections 3 & 4 are not applicable**