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# ASX Announcement | 3 May 2021 | ASX: ICG

# **COPPER-BEARING VEIN SYSTEM DOUBLES IN WIDTH AT JEAN ELSON**

Mapping confirms significant copper potential at NT project as key tenements are granted

# Highlights

- Jean Elson tenements now granted, clearing the way for major exploration activities to commence
- Recent field trip identifies additional copper-quartz-iron veins at the key Ningaloo Prospect, Camel Creek
- Previously reported 500m-wide zone of copper-bearing mineralised veins now approximately 1,000m wide

Inca Minerals Limited (Inca or the Company) is pleased to announce the granting of Exploration Licences (EL) EL32485 and EL32486 that make up its Jean Elson Project in the Northern Territory (Figure 1), together with positive outcomes from a recent exploration field trip conducted immediately following the successful AGES Conference in Alice Springs.

The Jean Elson Project is located 450km north-east of Alice Springs and, together with the Lorna May and Hay River Projects, makes up the Company's East Arunta Group Project. It is located approximately 380km south of Inca's Frewena Group Project in the emerging East Tennant region.



Figure 1. The Jean Elson Project comprises two granted EL's each containing the major prospect areas, Mt Cornish South, located on EL32485, and Camel Creek, located on EL32486. Both prospects were investigated during the recent field trip.



# **Recent Mapping and Sampling Field Work**

Immediately following the AGES conference and the inspection of diamond core from the NTGS-Minex CRC NDI drill-holes (see ASX announcements 22 April 2021 and 27 April 2021), the Company conducted a brief mapping and sampling program at the two main prospects at Jean Elson – Mt Cornish South and Camel Creek (and sub-prospect location Ningaloo).

A total of 45 rock-chip samples were collected, seven from Mt Cornish South and 38 from the general area of Camel Creek.

## Camel Creek (Ningaloo Prospect)

As previously reported (ASX Announcement 23 October 2020), Ningaloo hosts a north-west to south-east (**NW-SE**) trending multi-phase quartz-haematite vein (**Qtz-Fe**) swarm up to 500m wide (Figure 2). This vein system hosts strong copper (**Cu**) mineralisation, including a maximum value of 10.3% Cu, that is associated with Qtz-Fe veins. The Cu-Qtz-Fe veins vary in true thickness from 1.0m to 5.0m. Prior to the field trip reported in this announcement, the vein swarm consisted of six individual veins and was considered open in all directions (hidden below sand cover).



**Figure 2.** Rock-chip sample location and copper geochemistry of Ningaloo showing Inca's <u>previous</u> reconnaissance samples (coloured triangles) and historically reported samples (coloured squares). A series of parallel veins with strong Cu grades are partially exposed within the dry bed of Camel Creek. At the time, the vein swarm defined a 500m mineralised corridor (solid yellow lines). Please refer to Appendix 2, Table 2 for selected assay results.

For the purposes of testing the across-strike extent of the NW-SE vein system, mapping focused on areas both upstream and downstream of the dry creek bed and flanking alluvial plains. Pleasingly, multiple new Cu-Qtz-Fe veins, Qtz-Fe veins and quartz-vein alteration zones were identified in both directions.

Based on these finds, the width of the NW-SE vein system is now estimated be approximately 1,000m – double that of the previous estimate. Notwithstanding the fact that gravel beds of Camel Creek and alluvial sediments cover the veins system in all directions, the general decrease in vein float material in the creek upstream and downstream suggests that the vein system is not significantly broader than a kilometre.

The presence of a kilometre-wide vein swarm within which multiple Cu-Qtz-Fe veins contain significant levels of copper is a very pleasing result. To date, sampling has focused on these Cu-Qtz-Fe veins because of the occurrence of visual mineralisation.

The mineralised Qtz-Fe veins are generally poorly exposed and show high variability in terms of mineralogy, metal grade and morphology. Noted variations include thin (1m wide) zones of stockwork quartz and quartz-haematite veins/veinlets within altered granite, 1.0m-2.0m wide quartz-(haematite) veins, and more complex zoned veins varying from 1.0m-5.0m width.



Complex veins generally consist of an inner zone (1-2m wide) of massive specular haematite that is flanked by banded quartz-haematite material grading towards quartz-rich in the outer zones.

The variation evident in veins suggests multiple hydrothermal fluid phases occurred with each phase having a different geochemistry (i.e. silica rich, Fe rich, silica-Fe-Cu rich, silica-Cu rich).



*Figure 3* Rockchip sample location and Cu geochemistry of Ningaloo showing Inca's past (coloured triangles) and new reconnaissance samples (white triangles). A series of parallel veins with strong Cu grades are partially exposed within the dry bed of Camel Creek. The revised vein swarm width is approximately 1,000m wide (thick dashed lines). The J and K veins are highlighted.

Two large veins are worth singling out (Figure 3). The J-Vein varies in thickness from 1m to 5m and comprises a haematite-rich central suture with quartz-rich margins. The K-vein has a similar thickness, from 1m to 5m, but contains locally more complex internal zoning with lateral and longitudinal changes of quartz and haematite dominance. At least two haematite sutures are present at one location along the K-Vein.

The Cu-Qtz-Fe veins vary also in dip (angle into the ground), from approximately 60° dipping south (the J-Vein) to vertical (the K-Vein). This variability leads to the possibly of veins joining at depth.

As previously reported, the principal form of copper mineralisation occurring in exposes rocks at surface is supergene malachite (Figures 4 and 5), with lesser amounts of chrysocolla and azurite, that coats fractures and in-fills pore spaces.

# Very fine (<0.5mm) chalcopyrite is also noted in several samples of both quartz-haematite and specular haematite material (Figure 4).

Another objective of the mapping and sampling was to understand the vein variability and in particular the distribution of copper (and silver) within the large Qtz-Fe veins. To this end, K-Vein and J-Vein were channel sampled across the vein separating quartz dominant parts of the vein from iron-dominant parts, as well as from foot and hanging wall margins.

In the downstream direction, mapping identified additional malachite-bearing, Qtz-Fe veins within granites. This area also hosts numerous, small scale pods of altered to fresh mafic units. Zones of intense brecciation were also noted with increasingly stronger epidote alteration in addition to chlorite in the 'downstream' portion of Ningaloo. Fracture zones at times hosted late-stage calcite, limonite, and Mn oxide coatings.





*Figure 4.* Photo of rock chip sample JE0101 collected at Ningaloo (Figure 3 for location). It is quartz-haematite breccia, the quartz forms the clasts (white) and the haematite from the matrix (red-brown). Disseminated chalcopyrite and malachite occurs in the matrix. This one sample reveals two phases of hydrothermal activity, a first phase of milky white quartz and a second phase of haematite-copper.



*Figure 5.* Photo of rock chip sample JE0107 collected at the location of a new Cu-Qtz-Fe vein at Ningaloo (Figure 3 for location). The sample comprises massive malachite and thin quartz veins in what was originally a granite.



Several occurrences of chalcopyrite have now been noted at Ningaloo. JE0101 is a good example of an earlier stage quartz vein being later brecciated by haematite-rich fluids (Figure 4). Fine (0.5-1mm) blebs of chalcopyrite occur disseminated throughout and are partially weathered to haematite with associated malachite staining.

This sample confirms primary Cu-sulphides and also indicates rapid weathering of sulphides to haematite (a secondary form of haematite rather than primary form as that which occurs in the massive specular haematite veins at Ningaloo).

Sample ID	Easting (ms)	Northing (ms)	RL (ms als)	
JE0101	688682	7460649	246	
JE0107	688473	7460058	235	Table 1: Rock chip sample photo locations (Figures 4

The assay results of this sampling will help determine the broader nature and style of mineralisation occurring at Ningaloo. The Company has already flagged the possibility of the Iron Ore Copper Gold (**IOCG**) association, for reasons relating to the geophysical signature and the Fe-rich quality of the Cu-bearing veins.

However, the Cu-Qtz-Fe vein swarm is also reminiscent of a Winu-style of copper deposit. Winu consists of a system of subvertical, stacked multi-generation hydrothermal copper-silver-gold veins and breccias. The vein swarm at Ningaloo has many of these traits.

# Mt Cornish South Prospect

A single-day reconnaissance was undertaken at Mt Cornish South covering the 3.5km of prospect strike that was not visited during the 2020 field trip (the 2020 field trip assessed the western 1km portion of MCS). A total of seven rock chip samples were taken in areas not previously walked by Inca, with a focus on sampling of rock types not seen during the 2020 trip. Mapping and sampling was of a preliminary nature to obtain a general understanding of the entire Qtz-Fe breccia system.

Mt Cornish South is a very large (c. 5km E-W strike) prospect that consists of a fault disjointed ridge standing above relatively subdued topography. The topographic ridge largely consists of consists of hydrothermally altered granite, ferruginous sandstones, Fe breccias, felsic breccias, quartz veins, quartz stockwork zones, massive Fe-rich zones, and metasedimentary units. The pervasive nature of the hydrothermal quartz-Fe oxide alteration and vein-forming events is now doubt responsible for the formation of this ridge (resulting from increased resistance to erosion).

As previously reported, historical sampling at Mt Cornish South reports peak rock-chip results for Cu-uranium (U) and Fe mineralisation with elevated levels of silver (Ag), lead (Pb), zinc (Zn), molybdenum (Mo), nickel (Ni), and cobalt (Co).

The ridge partially forms a ring around a regional gravity high ridge with the northern and eastern topographic highs being qtzhem veined and some of the southern topographic highs older granites. All topographic highs truncate to the west.

The geochemical expression of the large Qtz-Fe vein-breccia system has clear IOCG affinity. Plus, its long-distance regional projection along strike from the Camel Creek Prospect makes Mt Cornish South, despite its lower rock chip assay values, of major exploration interest.

A wide array of vein styles is noted that includes vein/veinlets, stockworking, breccias, and pervasive silica and/or Fe-oxide flooding. Multiple phases of hydrothermal activity are noted, each phase differing in Qtz-Fe and metal content. This reflects variations in hydrothermal temperatures and pressures over a sustained period.

Reconnaissance work has confirmed that Mount Cornish South hosts a very large hydrothermal-style system that is moderately well exposed at surface but best expressed in higher topographical features. Sampling by Inca has corroborated historical sampling and indicates that the Prospect warrants additional exploration. This is likely best done through geophysical surveying to assess sub-surface features in order to define drill targets to evaluate the metal endowment of the area.

# Next Steps

The 2020 and 2021 field trips (the latter the subject of this announcement) have confirmed the exploration potential of the Jean Elson Project, which is highly prospective for IOCG, orogenic gold and "Winu"-style mineralisation.

Inca is committed to a fast-paced exploration program at this project, without compromising exploration standards. The Company has already engaged a firm for the purposes of conducting a project-wide airborne magnetic and radiometric survey (AMAGRAD) and has also applied for a NTG co-funding grant this for program.

The AMAGRAD program is scheduled to commence in the second half of 2021.



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# **Competent Person's Statements**

The information in this report that relates to exploration activities for the Jean Elson Project, located in the Northern Territory, is based on information compiled by Mr Ross Brown BSc (Hons), MAusIMM, SEG, MAICD Managing Director, Inca Minerals Limited, who is a Member of the Australasian Institute of Mining and Metallurgy; and by Mr Robert Heaslop BSc (Hons), MAusIMM, Consultant Geologist for Inca Minerals Limited, who is a Member of the Australasian Institute of Mining and Metallurgy; and by Mr Robert Heaslop BSc (Hons), MAusIMM, Consultant Geologist for Inca Minerals Limited, who is a Member of the Australasian Institute of Mining and Metallurgy. Both Mr Brown and Mr Heaslop have sufficient experience, which is relevant to the exploration activities, style of mineralisation and types of deposits under consideration, and to the activity which has been undertaken, to qualify as a Competent Person as defined in the 2012 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Mr Brown, who is a fulltime employee of Inca Minerals Limited, and Mr Heaslop both consent to the report being issued in the form and context in which it appears.

# Appendix 1: Key Assay Results from the Prior 2020 Sampling Programs at Ningaloo Prospect

Sampla	Cu	Cu	Au	Ag	Fe	Company
Sample	(ppm)	(%)	(g/t)	(g/t)	(%)	Company
JE0045	103,000	10.30	0.03 <mark>8 0.03</mark> 8	3.80	2.83	Inca Minerals
JE0039	<b>59</b> ,400	) <u>5.9</u> 4	4 0.042	6.40	3.16	Inca Minerals
JE0076	43,300	4.33	3 <u>0</u> .024	1.32	6.91	Inca Minerals
JE0074	39,200	3.92	2 0.041	0.75	6.83	Inca Minerals
JE0040	88,800	3.88	8 0.03 <mark>8</mark>	5. <mark>3</mark> 4	3.43	Inca Minerals
BGI014	28,800	2.88	B 0.040	BDL	2.52	Bluegum Int.
JE0077	26,700	2.6	7 <u>0</u> .024	0.69	6.27	Inca Minerals
BGI013	25,800	2.58	B 0.020	1.00	1.70	Bluegum Int.
BGI016	25,600	2.50	6 BDL	BDL	1.16	Bluegum Int.
JE0075	24,700	2.4	7 0.022	2.71	3.41	Inca Minerals
JE0067	24,400	2.44	4 0.005	0.48	30.60	Inca Minerals
JE0080	16,850	1.69	9 📃 0.011	0.50	9.05	Inca Minerals
JE0081	16,800	1.68	8 🧧 0.006	0.64	6.02	Inca Minerals
JE0068	16,200	1.62	2 0. <mark>0</mark> 28	1.21	37.00	Inca Minerals
JE0079	9,470	0.9	5 BDL	0.50	2.58	Inca Minerals
BGI017	8,150	0.82	2 0.020	BDL	1.13	Bluegum Int.
5338225	7,500	0.7	5 0.004	BDL	5.65	NTGS
JE0066	6,940	0.69	9 📃 0.007	0.26	7.17	Inca Minerals
BGI019	6,040	0.60	0.030	1.00	3.28	Bluegum Int.
JE0047	5,250	0.53	3 📃 0.007	0.85	4.95	Inca Minerals
JE0078	5,040	0.50	0.011 0.011	0.98	4.11	Inca Minerals
BGI010	4,190	0.42	2 0.020	1.00	1.21	Bluegum Int.
JE0048	3,380	0.34	4 🚺 0.006	0.16	2.59	Inca Minerals
JE0073	3,250	0.33	3 📃 0.010	0.08	25.60	Inca Minerals
JE0038	2,150	0.22	2 0.012	0.63	9.43	Inca Minerals
BGI012	2,050	0.2	1 0.020	BDL	1.59	Bluegum Int.
JE0072	1,970	0.20	0.008	0.08	34.40	Inca Minerals
JE0041	1,925	0.19	9 📃 0.013	0.02	23.40	Inca Minerals
JE0069	1,650	0.1	7 🧧 0.006	0.04	37.00	Inca Minerals
JE0042	1,485	0.1	5 0.005	0.15	3.68	Inca Minerals
BG1005	1,151	. 0.12	2 0.030	BDL	7.10	Bluegum Int.
JE0046	1,110	0.1	1 BDL	0.07	4.28	Inca Minerals
JE0071	1,050	0.1	1 0.009	0.03	2 <b>3</b> .90	Inca Minerals

Table 2: Peak rockchip sample results from Ningaloo show high grade Cu, variable Fe, and elevated Au-Ag.



# Appendix 2: Selected Key Words Used in this Announcement (order of appearance and cross reference)

Reconnaissance	Refers to very early-stage, in some cases, first-pass, [often rockchip] sampling recording, location, rock type
Sampling	structure, <u>alteration</u> and <u>mineralisation</u> .
Rockchip Sampling	An exploration method to obtain <i>geochemical</i> data from rock outcrop. This program type is often deployed as part
	of reconngissance exploration [mapping and sampling] but may also be deployed over targets that are relatively
	well defined.
Ore-forming Minerals	Minerals which are economically desirable, as contrasted to Ganaue Minerals.
Gangue Minerals	Valueless minerals in ore.
IOCG (Deposit)	A type of <i>deposit</i> containing <i>ore-forming minerals</i> occurring as <i>disseminations</i> and <i>veinlets</i> in a large volume of rock.
	The rock is typically iron rich (a distinction from <i>porphyry</i> deposits). <i>IOCG deposits</i> are economically very significant.
Deposit	A [mineral] deposit is a naturally occurring accumulation or concentration of metals or minerals of sufficient size
	and concentration that might, under favourable circumstances, have economic value (Geoscience Australia). It is
	not a defined term in the IORC Code 2012 for Australasian Reporting of Exploration Results. Mineral Resources and
	Ore Reserves (IORC 2012).
Chalconvrite	Copper iron sulphide with the chemical formula $CuEeS_2$ with 34.63% Cu by mol. weight
Malachite	A hydrated copper oxide with a chemical formula: $Cu_2(CO_2)(OH)_2$ ; 57,48% Cu mol weight
Fe-oxides	A group of oxide minerals containing iron (Fe) including but not limited to <i>haematite</i> limonite and goethite
Mn-oxides	A group of oxide minerals containing mangapese (Mn) including but not limited to pyrolusite franklinite iacobsite
Haematite	An iron oxide reddish-brown to silvery grey coloured group of minerals with a general formula of $Fe_2\Omega_2$
Specularite	A variety of haematite that is metallic in colouring
Limonite	A hydrated iron oxide with a chemical formula: $EO(OH)$ nH <sub>2</sub> O
Granite/granitic	An <i>intrusive</i> rock in which quartz constitutes 1- to 50% of the felsic component and in which the alkali feldspar/total
<u>eranner Branner</u>	feldspar ratio is generally restricted to 65% to 90%.
Footwall	The lower or underside wall of an inclined vein, fault, zone of mineralisation or other geologic structure.
Hangingwall	The upper or overhanging wall of an inclined vein, fault, zone of mineralisation or other geologic structure.
Limestone	A calcium carbonate sedimentary rock typically formed by ancient coral reefs.
Calcrete	A sedimentary rock, a hardened natural cement of calcium carbonate that binds other materials—such as gravel.
	sand. clav. and silt. It occurs worldwide in arid or semiarid regions.
Silcrete	An indurated (resists crumbling or powdering) soil duricrust formed when surface sand and gravel are cemented by
	dissolved silica. The formation of silcrete is similar to that of <i>calcrete</i> , formed by calcium carbonate, and ferricrete,
	formed by iron oxide. It is a hard and resistant material and id common in the arid and semiarid regions.
Geochemistry (-ical)	The study of the distribution and amounts of the chemical elements in minerals, ores, rocks, soils, water and the
	atmosphere. Geochemical sampling programs may include stream sampling, soil sampling, rock chip sampling.
Alteration	A process that involves the <i>alteration</i> of (change to) a rock, mineral or <i>mineralisation</i> by processes involving, but
	not limited to, the presence of hydrothermal fluids.
Propylitic alteration	Alteration typically associated with hydrothermal activities in which epidote, chlorite and calcite are produced.
Phyllic Alteration	Alteration typically associated with hydrothermal activities in which <i>quartz</i> , sericite and pyrite are produced.
Potassic alteration	Or K-Feldspar alteration that is characterised by the formation of new K-feldspar and/or biotite minerals. It typically
	represents the highest temperature form of alteration within porphyry deposits, forming in the core of the system.
Breccia	Broken or fragmented rock. Breccia veins which are common at Riqueza, are narrow fissures containing numerous
	rock fragments. The rock fragments are called clasts and the space around the clasts is called the matrix. Often the
	matrix in the breccia veins at Riqueza contains the ore-forming minerals.
Clast	The broken or fragmented, generally coarse component of a breccia.
Matrix	The fine component of a breccia, occurring between the clasts.
Vein(s)	A tabular or sheet-like form of mineralisation, often resulting from in-filling a vertical or near-vertical fracture. They
	often cut across country rock.
Veinlet(s)	A small and narrow mineral filling of a fracture in country rock that is tabular or sheet-like in shape. Veinlets are
	narrow versions of veins.
<u>Stockwork</u>	A mineral deposit in the form of a profusion of <i>veinlets</i> diffused in the country rock.
Boxwork (texture)	Said of a rock fabric that comprises empty cubic/near-cubic ("boxes") that are spaces created by the weathering
	and removal of crystal sulphides.
Disseminated	Descriptor of <i>mineralisation</i> said to be fine grained and generally evenly distributed.
Massive	Descriptor of <i>mineralisation</i> said to comprise more than 20% of the rock.
<u>Epidote</u>	A common secondary mineral that is often a product of <u>hydrothermal alteration</u> . In the field <u>epidote</u> is often apple
	green in colour.
Quartz	One of the most common minerals on Earth. <u>Quartz</u> is often a product of <u>hydrothermal alteration</u> .
<u>Magnetics</u>	A measurement of the intensity of the earth's magnetic field caused by the contrasting content of rock-forming
	magnetic minerals in the Earth's crust. This allows sub-surface mapping of geology, including <u>structures</u> . An airborne
<b>o</b>	survey is flown either by plane or helicopter with the magnetometer kept at a constant height above the surface.
Gravity	A measurement of a rock's, zone of mineralisation's, etc gravity (or density).



# Appendix 3: ASIC Compliancy Table

The following information is provided to comply with the JORC Code (2012) exploration reporting requirements.

## SECTION 1 SAMPLING TECHNIQUES AND DATA

#### **Criteria: Sampling techniques**

#### **JORC CODE Explanation**

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 hand-held XRF instruments, etc.). These examples should not be taken as limiting the broad meaning of sampling.

#### **Company Commentary**

This announcement refers to reconnaissance mapping and sampling field work conducted at the Jean Elson Project. Forty five rock chip samples were taken. Rock samples were collected that were considered representative of the source material and were recorded as either in situ or float material. This announcement also refers to exploration results conducted by Inca and by previous parties and recorded in the Northern Territory Mines Department databank, assessed and reviewed by the Company. Strong correlation is seen between the Company's assay results as those of previous explorers.

Two rock chip sample rock specimen photos are included in this announcement. However, no new assay results are referred to in this announcement.

#### **JORC CODE Explanation**

Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.

#### **Company Commentary**

This announcement refers to reconnaissance mapping and sampling field work conducted at the Jean Elson Project. Forty five rock chip samples were taken. Rock samples were collected that were considered representative of the source material and were recorded as either in situ or float material. This announcement also refers to exploration results conducted by Inca and by previous parties and recorded in the Northern Territory Mines Department databank, assessed and reviewed by the Company. Strong correlation is seen between the Company's assay results as those of previous explorers.

Two rock chip sample rock specimen photos are included in this announcement. However, no new assay results are referred to in this announcement.

#### **JORC CODE Explanation**

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 1m samples from which 3 kg was pulverised to produce a 30g charge for fire assay'). In other cases, more explanation may be required, such as where there is a coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (e.g. submarine nodules) may warrant disclosure of detailed information.

#### **Company Commentary**

Mineralisation is evidenced in the field by visible copper minerals. The samples taken from mineralised outcrop are considered representative of such mineralisation and hydrothermal alteration outcropping at the various locations mapped and sampled. Approximately 2kg of sample was taken from each sample location.

#### **Criteria: Drilling techniques**

#### JORC CODE Explanation

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.).

#### **Company Commentary**

No drilling results are referred to in this announcement.

#### Criteria: Drill sample recovery

#### **JORC CODE Explanation**

Method of recording and assessing core and chip sample recoveries and results assessed.

#### **Company Commentary**

No drilling results are referred to in this announcement.



#### **JORC CODE Explanation**

Measures taken to maximise sample recovery and ensure representative nature of the samples.

#### **Company Commentary**

No drilling results are referred to in this announcement.

#### **JORC CODE Explanation**

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.

#### **Company Commentary**

No drilling results are referred to in this announcement.

#### **Criteria: Logging**

#### **JORC CODE Explanation**

Whether core and chip samples have been geologically and geo-technically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.

#### **Company Commentary**

No drilling results are referred to in this announcement.

#### **JORC CODE Explanation**

Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography

#### **Company Commentary**

No drilling results are referred to in this announcement.

#### **JORC CODE Explanation**

The total length and percentage of the relevant intersections logged.

#### **Company Commentary**

No drilling results are referred to in this announcement.

## Criteria: Sub-sampling techniques and sample preparation

#### **JORC CODE Explanation**

If core, whether cut or sawn and whether quarter, half or all core taken.

#### **Company Commentary**

No drilling results are referred to in this announcement.

#### JORC CODE Explanation

If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry.

#### **Company Commentary**

No drilling results are referred to in this announcement.

#### **JORC CODE Explanation**

For all drill sample types, the nature, quality and appropriateness of the sample preparation technique.

#### **Company Commentary**

No drilling results are referred to in this announcement.

#### JORC CODE Explanation

Quality control procedures adopted for all sub-sampling stages to maximise "representivity" of samples.

#### **Company Commentary**

No drilling results are referred to in this announcement.

#### **JORC CODE Explanation**

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.



The samples taken from mineralised outcrop are considered representative of such mineralisation and hydrothermal alteration outcropping at the various locations mapped and sampled. Approximately 2kg of sample was taken from each sample location. The historic sample assay results referred to in this announcement were generated by a previous exploration company. The sampling distribution appears controlled by the limit of exposed rock in a dry creek bed. To this extent, the sampling technique appears representative of the limited rock exposure in the creek bed. Additionally, strong correlation between the Company's assay results and those of previous explorers indicate representative sampling has been achieved.

#### JORC CODE Explanation

Whether sample sizes are appropriate to the grain size of the material being sampled.

#### **Company Commentary**

The average rockchip sample size of approximately 2kg is considered appropriate.

#### Criteria: Quality of assay data and laboratory tests

#### **JORC CODE Explanation**

The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.

#### **Company Commentary**

Assaying to be undertaken by the Company to be reported in a future announcement(s) will be undertaken by ALS Laboratories in Brisbane and are considered of leading industry standard. Samples were crushed, pulverised with analyses completed by 4 acid digest of 25g sample with ICP-MS and ICP-AES for multielement and 30g fire assay for gold. Historic sample assay results also referred to in this announcement were generated by a previous exploration company. The laboratory procedures to generate the results is unknown by the Company.

#### **JORC CODE Explanation**

For geophysical tools, spectrometers, hand-held XRF instruments, etc., the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.

#### **Company Commentary**

Assaying to be undertaken by the Company to be reported in a future announcement(s) will be undertaken by ALS Laboratories in Brisbane and are considered of leading industry standard. Samples were crushed, pulverised with analyses completed by 4 acid digest of 25g sample with ICP-MS and ICP-AES for multielement and 30g fire assay for gold. Historic sample assay results also referred to in this announcement were generated by a previous exploration company. The laboratory procedures to generate the results is unknown by the Company.

#### JORC CODE Explanation

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.

#### **Company Commentary**

The historic sample assay results referred to in this announcement were generated by a previous exploration company. The QAQC procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) by the previous exploration company are unknown by the Company. The 45 new rock chip samples submitted for geochemical analysis will not include Company standards, blanks, duplicates on the basis of the small sample population.

#### Criteria: Verification of sampling and assaying

#### JORC CODE Explanation

The verification of significant intersections by either independent or alternative company personnel.

#### **Company Commentary**

No drilling results are referred to in this announcement.

#### JORC CODE Explanation

The use of twinned holes.

#### **Company Commentary**

No drilling results are referred to in this announcement.

#### JORC CODE Explanation

Documentation of primary data, data entry procedures, date verification, data storage (physical and electronic) protocols.



This announcement refers to mapping and sampling field work conducted at the Jean Elson Project. Forty five rock chip samples were taken. Field data and assay results are stored securely on Company and consultant laptops and databases with periodic backup. This announcement also refers to exploration results conducted by previous parties and recorded in the Northern Territory Mines Department databank, assessed and reviewed by the Company. The Company is unaware of primary data, data entry procedures, date verification, data storage (physical and electronic) protocols used on this data.

#### JORC CODE Explanation

Discuss any adjustment to assay data.

#### **Company Commentary**

No adjustment has been applied to assay results generated by the Company as reported in this announcement. The historical rockchip sample assay results referred to in this announcement were generated by a previous exploration company. The Company is unaware of assay data adjustments. The Company undertook none of its own in relation to the historic data. Strong correlation between the Company's assay results and historical assay results indicate both representative sampling and precise and accurate assaying techniques have been applied.

#### Criteria: Location of data points

#### JORC CODE Explanation

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.

#### **Company Commentary**

This announcement refers to mapping and sampling field work conducted at the Jean Elson Project. Forty five rock chip samples were taken which were georeferenced with a handheld GPS. This announcement also refers to exploration results conducted by previous parties and recorded in the Northern Territory Mines Department databank, assessed and reviewed by the Company. Location of past sample data and geophysics data were obtained with reference to open file information in the NT Mining Department databank.

#### JORC CODE Explanation

Specification of the grid system used.

#### **Company Commentary**

GDA94, zone 53.

JORC CODE Explanation

Quality and adequacy of topographic control.

#### Company Commentary

This announcement refers to mapping and sampling field work conducted at the Jean Elson Project. Forty five rock chip samples were taken which were georeferenced with a handheld GPS. This announcement also refers to exploration results conducted by previous parties and recorded in the Northern Territory Mines Department databank, assessed and reviewed by the Company. Location of past sample data and geophysics data were obtained with reference to open file information in the NT Mining Department databank. The Company believes adequate topographic control has been achieve in this sampling.

#### Criteria: Data spacing and distribution

#### JORC CODE Explanation

Data spacing for reporting of Exploration Results.

#### **Company Commentary**

This announcement refers to mapping and sampling field work conducted at the Jean Elson Project. Forty five rock chip samples were taken which were spaced according to limited and at times confined rock exposure. Best exposure was noted along dry creek beds so there is a bias of information in such geographical places. This announcement also refers to exploration results conducted by previous parties and recorded in the Northern Territory Mines Department databank, assessed and reviewed by the Company. Location of past sample data and geophysics data were obtained with reference to open file information in the NT Mining Department databank.

#### JORC CODE Explanation

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.

#### **Company Commentary**

No grade, grade continuity, Mineral Resource or Ore Reserve estimations are referred to in this announcement.

#### JORC CODE Explanation

Whether sample compositing has been applied.



Forty five rock chip samples were taken in the recent field trip to the Jean Elson Project with representative samples collected. Sample compositing was carried out at most locations insofar as multiple samples were collected from a 1m x 1m and 2m x 2m areas made into a single sample. The historic sample assay results referred to in this announcement were generated by a previous exploration company. Sample compositing was undertaken though the extent is unknown. A note: Sample compositing is a common practice in collecting rockchip samples from a single outcrop location. Commonly from an area centred on a target rock, compositing may include the collection of multiple ±100g samples from 10m<sup>2</sup> for a total of 1-3kg samples. The practice increases representativeness of the sample.

#### Criteria: Orientation of data in relation to geological structure

#### JORC CODE Explanation

Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.

#### **Company Commentary**

This announcement refers to mapping and sampling field work conducted at the Jean Elson Project. Forty five rock chip samples were taken which were spaced according to limited and at times confined rock exposure. Best exposure was noted along dry creek beds so there is a bias of information in such geographical places. The historic sample assay results referred to in this announcement were generated by a previous exploration company. Based on coordinates alone, the sampling distribution appears controlled by the limit of exposed rock in a dry creek bed, like that of the Company's. It this extent, the sampling is unbiased in terms of known mineralisation orientations.

#### JORC CODE Explanation

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.

#### **Company Commentary**

N/A - No drilling results, sampling or assay results are referred to in this announcement.

#### Criteria: Sample security

#### JORC CODE Explanation

The measures taken to ensure sample security.

#### **Company Commentary**

This announcement refers to forty five rock chip samples. The samples were made secured and at all times monitored prior to submission for geochemical analysis. The historical rockchip sample assay results referred to in this announcement were generated by a previous exploration company.

#### Criteria: Audits and reviews

#### **JORC CODE Explanation**

The results of any audits or reviews of sampling techniques and data.

#### **Company Commentary**

No audits were required in relation to information subject of this announcement.

#### SECTION 2 REPORTING OF EXPLORATION RESULTS

#### Criteria: Mineral tenement and land tenure status

#### **JORC CODE Explanation**

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.

#### **Company Commentary**

Tenement Type: Two Northern Territory Exploration Licences (EL): EL 32485 and EL32486 applications.

Ownership: The Company has the right to earn 100% of EL 32485 & EL32486 with a residual 1.5% NSR payable to MRG Resources Pty Ltd (**MRG**), through an executed Joint Venture and Royalty Agreement (JVRA) with MRG.

#### **JORC CODE Explanation**

The security of the land tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.

#### **Company Commentary**

The JVRA and the tenement applications are in good standing at the time of writing.



#### Criteria: Exploration done by other parties

# JORC CODE Explanation

Acknowledgement and appraisal of exploration by other parties.

#### **Company Commentary**

This announcement refers to exploration conducted by previous parties recorded in the Northern Territory Mines Department databank assessed and reviewed by MRG and reviewed by the Company. Specifically, the rockchip sample assay results referred to in this announcement were generated by a previous exploration company.

### Criteria: Geology

#### **JORC CODE Explanation**

Deposit type, geological setting and style of mineralisation.

#### **Company Commentary**

The geological setting falls within the Palaeozoic Georgina Basin that is regionally mapped as shales and limestones of varying thickness. Local geology, however, is inferred from radiometric and ASTER data to be dominated by outcropping or near surface granitic lithologies. These older granitic lithologies are considered prospective to host IOCG mineralisation.

#### Criteria: Drill hole information

## **JORC CODE Explanation**

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 collar
- Elevation or RL (Reduced Level elevation above sea level in metres) of the drill hole collar.
- Dip and azimuth of the hole.
- Down hole length and interception depth.
- Hole length.

#### **Company Commentary**

No drilling results are referred to in this announcement.

#### JORC CODE Explanation

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.

#### **Company Commentary**

No drilling results are referred to in this announcement.

#### **Criteria:** Data aggregation methods

#### JORC CODE Explanation

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 shown in detail.

#### **Company Commentary**

No drilling results are referred to in this announcement.

### JORC CODE Explanation

The assumptions used for any reporting of metal equivalent values should be clearly stated.

#### **Company Commentary**

No metal equivalent values are used in this announcement.

#### Criteria: Relationship between mineralisation widths and intercept lengths

#### **JORC CODE Explanation**

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.')



No drilling results are referred to in this announcement.

#### Criteria: Diagrams

#### **JORC CODE Explanation**

Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported. These should include, but not limited to a plan view of drill hole collar locations and appropriate sectional views

#### **Company Commentary**

This announcement refers to mapping and sampling field work conducted at the Jean Elson Project. Forty five rock chip samples were taken with sample locations presented visually on maps and tabulated with GPS coordinates provided within this announcement. Multiple photos (with scale) are provided that shows the nature of the mineralisation, among other parameters. The location of the samples and photos are provided in a plan.

#### Criteria: Balanced reporting

#### **JORC CODE Explanation**

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.

#### **Company Commentary**

The Company believes this ASX announcement provides a balanced report of the exploration results referred to in this announcement.

#### Criteria: Other substantive exploration data

#### JORC CODE Explanation

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.

#### **Company Commentary**

This announcement makes reference to three previous ASX announcements, dated 23 October 2020, 22 April 2021, and 27 April 2021.

#### Criteria: Further work

#### **JORC CODE Explanation**

The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).

#### **Company Commentary**

Exploration work conducted by the Company is necessary to progress the understanding of the economic potential of this project.

#### JORC CODE Explanation

Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.

#### **Company Commentary**

This announcement refers to mapping and sampling field work conducted at the Jean Elson Project. Forty five rock chip samples were taken. Visible mineralisation and alteration is discussed in this announcement. Two photos (with scale) are provided that shows the nature of the mineralisation, among other parameters. The location of the samples and photos are provided in a plan. No new sample assay results are included in this announcement.

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