Exploration for IOCG and ISCG copper-gold giants :

How different can they be?

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Geophysical Methods in Mineral Exploration

Given ubiquitous and problematic cover over much of Australia, exploration for IOCG style deposits invariably requires a geophysical approach. In this short presentation, I hope to show how that approach needs to be tailored to the mineralogical characteristics of the model target, as well as the problematical issues of getting geophysical signals to "see" through the cover. Simultaneously, we can answer the question of… "are there a broader number of IOCG deposit styles in the Gawler Craton than hitherto documented".

● Highly effective ● Moderately effective ● Generally ineffective

Geo-physical method	Air or ground	Appli-cation	Ni-Cu-PGE	Fe-Ti BIF	Gold	VMS	Olympic Dam-type	SEDEX	Por-phyry Cu	Pb-Zn	Dia-monds
Magnetic	Air	Geological framework	Highly effective	Highly effective	Highly effective	Highly effective	Highly effective	Highly effective	Highly effective	Highly effective	Highly effective
		Direct targeting	Moderately effective	Highly effective	Generally ineffective	Highly effective	Highly effective	Moderately effective	Highly effective	Generally ineffective	Highly effective
	Ground	Geological framework	Moderately effective	Highly effective	Highly effective	Highly effective	Highly effective	Highly effective	Highly effective	Moderately effective	Highly effective
		Direct targeting	Moderately effective	Highly effective	Moderately effective	Highly effective	Highly effective	Moderately effective	Highly effective	Generally ineffective	Highly effective
Electro-magnetic	Air	Geological framework	Highly effective	Highly effective	Moderately effective	Moderately effective	Generally ineffective	Moderately effective	Generally ineffective	Generally ineffective	Moderately effective
		Direct targeting	Highly effective	Highly effective	Moderately effective	Highly effective	Moderately effective	Moderately effective	Generally ineffective	Generally ineffective	Highly effective
	Ground	Geological framework	Highly effective	Highly effective	Moderately effective	Moderately effective	Generally ineffective	Moderately effective	Generally ineffective	Moderately effective	Highly effective
		Direct targeting	Highly effective	Moderately effective	Generally ineffective	Highly effective	Moderately effective	Moderately effective	Generally ineffective	Moderately effective	Highly effective
Gravity	Air	Geological framework	Highly effective	Highly effective	Moderately effective	Moderately effective	Moderately effective	Moderately effective	Moderately effective	Moderately effective	Moderately effective
		Direct targeting	Highly effective	Highly effective	Generally ineffective	Highly effective	Moderately effective	Moderately effective	Generally ineffective	Moderately effective	Highly effective
	Ground	Geological framework	Highly effective	Highly effective	Moderately effective	Moderately effective	Moderately effective	Moderately effective	Moderately effective	Moderately effective	Highly effective
		Direct targeting	Highly effective	Highly effective	Generally ineffective	Highly effective	Moderately effective	Highly effective	Moderately effective	Highly effective	Highly effective

Fe-Cu-Au Deposit Styles

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IOCG's whether magnetite or haematite dominated, are part of a larger family of Fe-Cu-Au deposit styles that include, where host strata/fluids are significantly reduced, an Iron Sulphide (ISCG) style. This style is largely untested in SA and requires a significantly different approach and exploration toolbox

IOCG Deposit Styles	Examples	Mineralisation	Form of Iron	Targeting Methodology
Ironstone Hosted	Osborne (part), Starra, Peko, Geko	Cu-Au-Bi	Mag, Po, Hm	Magnetics, Gravity
Haematite Breccia	Olympic Dam, Prominent Hill	Cu-Au-U-REE	Hm	Gravity, IP
Magnetite Breccia	Ernest Henry, Candelaria, Salobo	Cu-Au	Mag, Bio	Magnetics, Gravity
Magnetite-Apatite	Kiruna, Acropolis	minor	Mag	Magnetics
Iron Sulphide	**Eloise, Kulthor, Osborne (part), Cormorant, Artemis, Iris**	**Cu-Au-Zn-Pb-Ag-Co**	**Po, Py**	**Electrical Conductivity**
Cobaltiferous	Nico	Au-Bi-Co-Cu	Mag, Hm, Bio	Magnetics, Radiometrics
Common Features: Bimodal igneous activity, mantle tapping structures, extensive regional Na and K alteration and widespread Fe metasomatism				

IOCG – ISCG Mineralisation Styles

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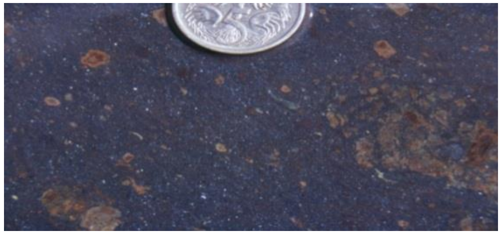
IOCG deposits (**magnetite or haematite-rich**; disseminated, breccias) (Ernest Henry, Prominent Hill):

- Breccia bodies seeking dilational openings
- Oxidised terranes, magnetically active
- Fe oxide host bodies (magnetite, haematite) and alteration haloes generate gravity and magnetic anomalism
- Strong IP chargeability anomalies
- Broad alteration haloes
- Weak to no EM anomalies

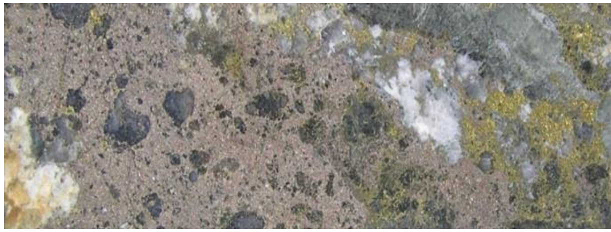
Ernest Henry



Prominent Hill

ISCG deposits (**pyrrhotite-rich**; massive, high grade) (Eloise, East Osborne, Kulthor, Cormorant, Artemis, Iris):

- Tabular bodies following fault structures and rheological contacts
- Reduced terranes, magnetically quiet (carbonaceous and graphitic shales)
- Fe in form of pyrrhotite and pyrite; may be completely non magnetic
- Weak to no regional gravity anomalism
- Strong ground EM anomalies



Eloise

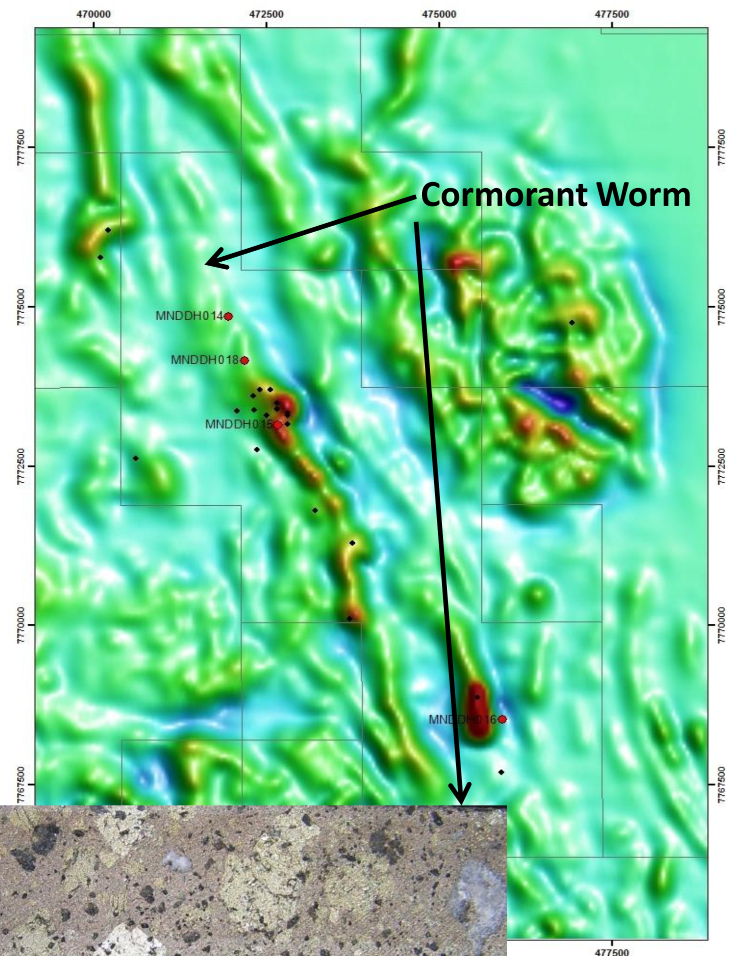
Osborne

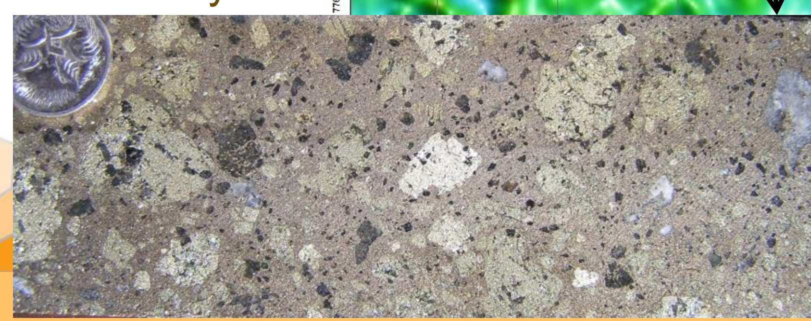
Note all currently known ISCG deposits in Australia are in the Cloncurry District. Can they exist in the Gawler??

ISCG Deposit Styles - Cormorant

Minotaur's ISCG experiences began at the Cormorant Prospect, north of Cloncurry, in 2008

- Recognition that mineralisation associated with abundant pyrrhotite – highly conductive, but only weakly magnetic – the Cormorant Worm
- 100-200m of ultra-conductive Mesozoic cover. R&D on appropriate EM systems successful
- Regional tracking and drill testing confirms +15km, +20m thick iron sulphide system, massive & breccia pyrrhotite, persistently mineralised
- Major Iron Sulphide Copper Gold system (ISCG) encountered within a reduced host rock terrane
- Epigenetic Fe system as large as Prominent Hill
- Weakly magnetic, highly conductive, structurally controlled





MIN04 : 20m @ 0.2% Cu, 0.02% Co from 160m

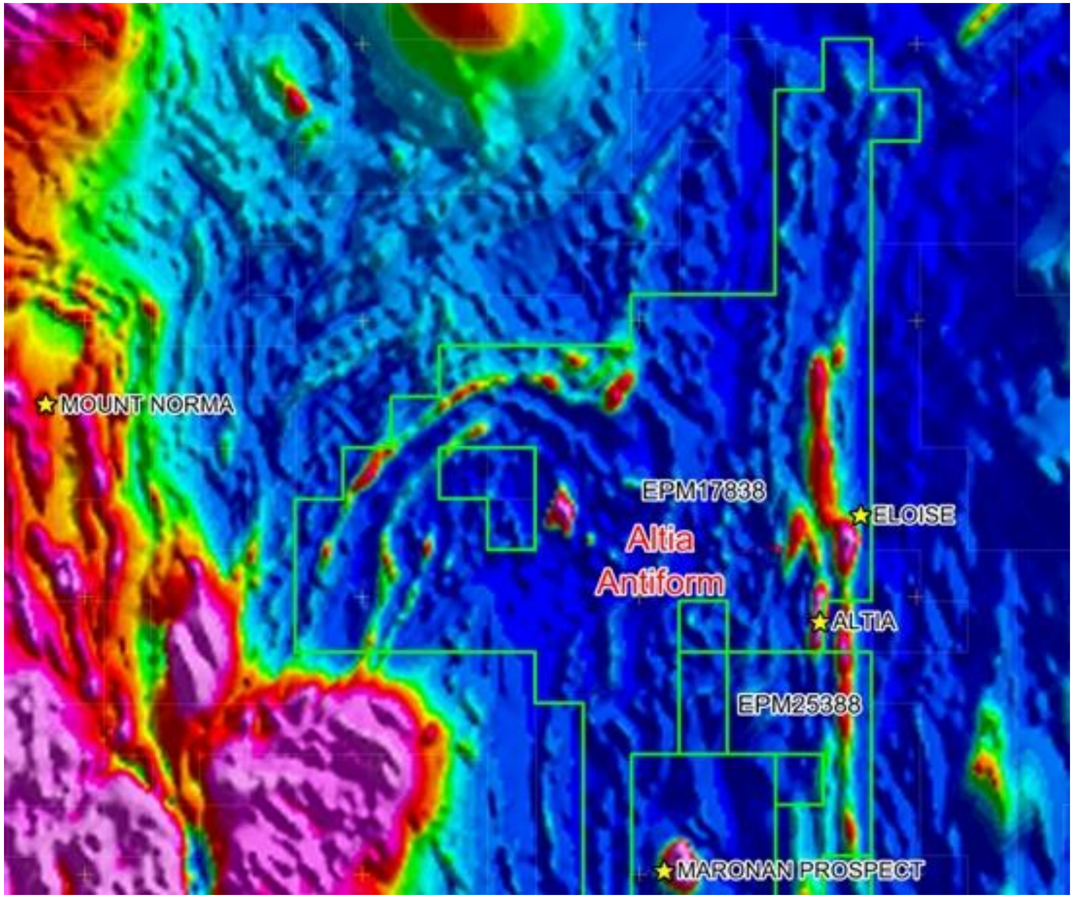
MIN07 : 56m @ 0.1% Cu, 0.03 g/t Au from 186m

MIN10 : 72m @ 0.21% Cu, 0.02% Co from 414m

ISCG Deposit Styles - Eloise

Minotaur move into Eloise region, south of Cloncurry, driven by:

- Recognition of the ISCG style at Cormorant as a significant and different, high grade style of Cu-Au mineralisation
- Understanding of different exploration tools required, particularly EM and AEM
- Requirement for shallower ground that would allow airborne techniques to be used as a more rapid screening tool
- Recognition of Eloise as the pre-eminent example of the ISCG style, with abundant prospects in the surrounding "reduced terrane" that was also amenable to AEM.



ISCG Deposit Styles - Eloise

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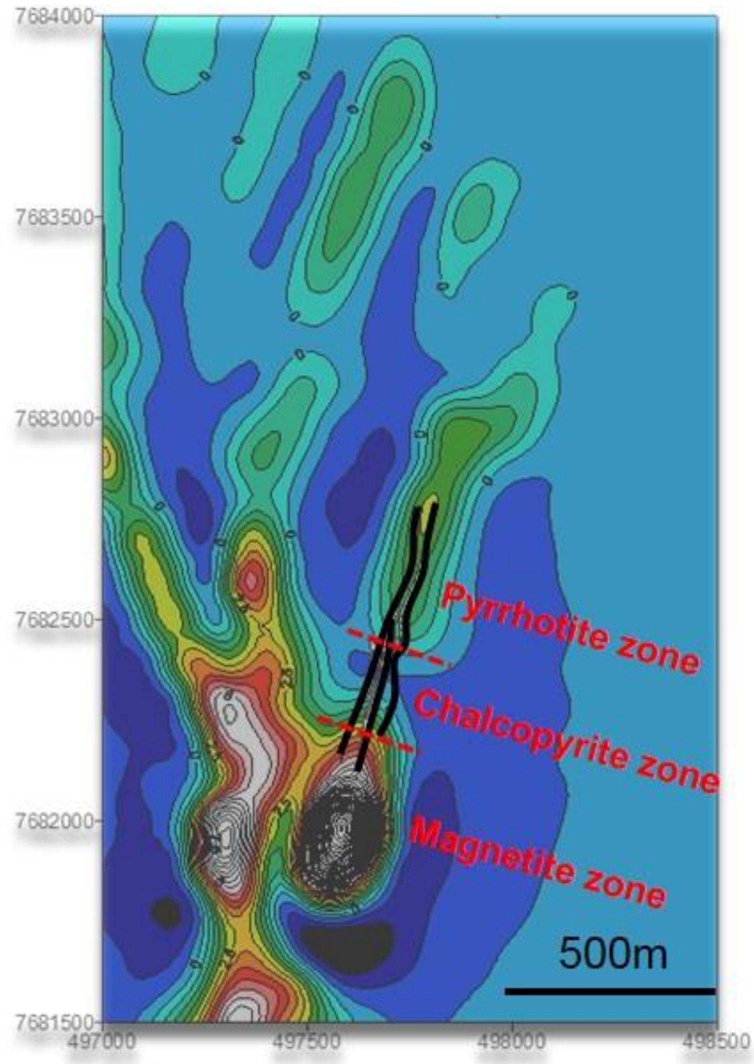
Eloise Mine

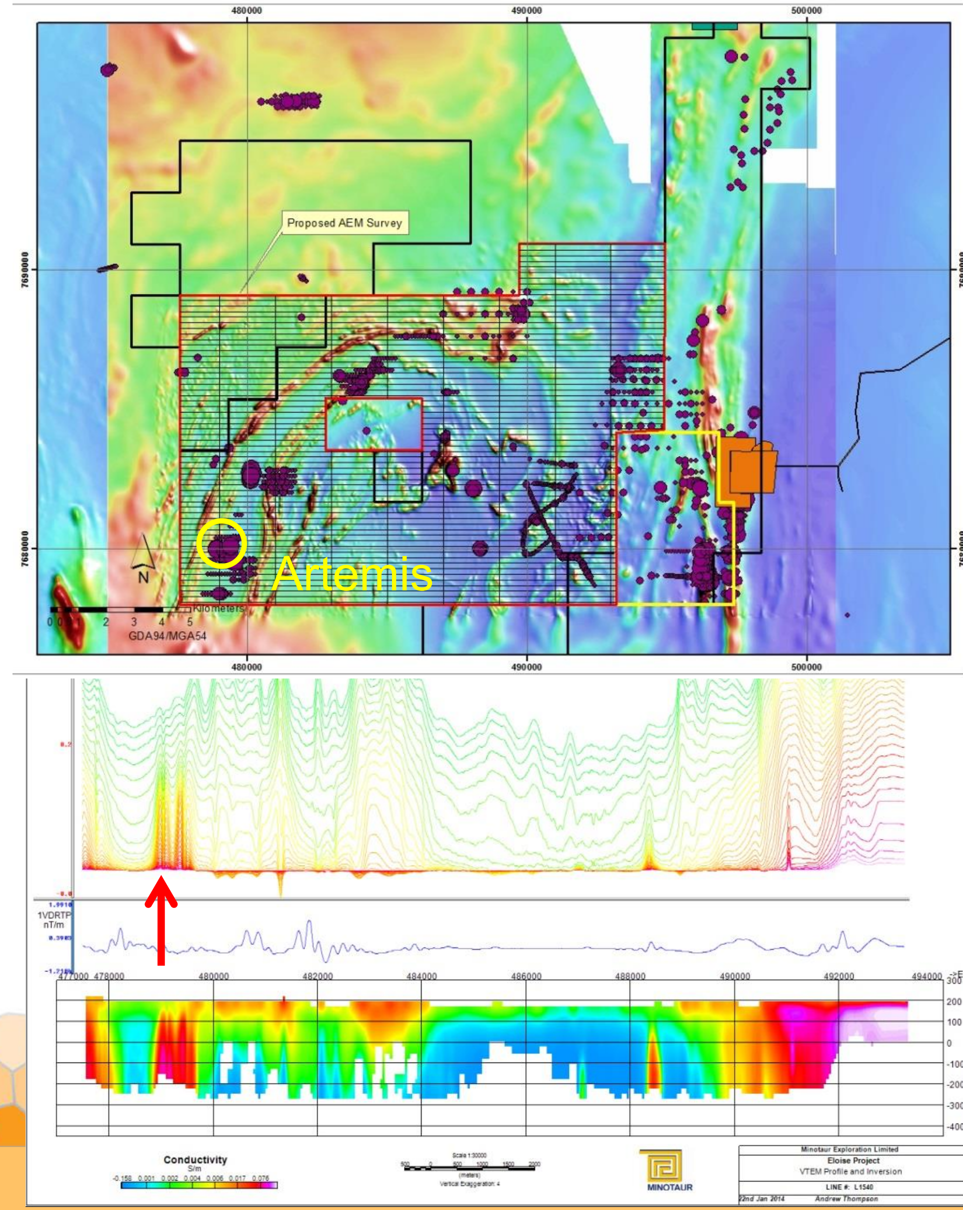
- Massive sulphide, pyrrhotite - chalcopyrite dominated
- 10Mt mined since 1996
- Short strike length, tabular, structurally controlled
- Responds well to EM
- High grade and gold to copper ratio (3.5% Cu:0.9 ppm Au)
- Elemental association of Cu+Au+Ag+Co+Ni+Zn+As+Bi+/-Pb



ISCG Deposit Styles - Artemis

The Artemis discovery exploration tool box involved:

- Regional AEM survey as a cost effective regional screening tool
- Ground truth of selected targets and integration with other available data
- Ground EM follow-up
- Drill test
- Artemis ISCG discovery July 2014



ISCG Deposit Styles - Artemis

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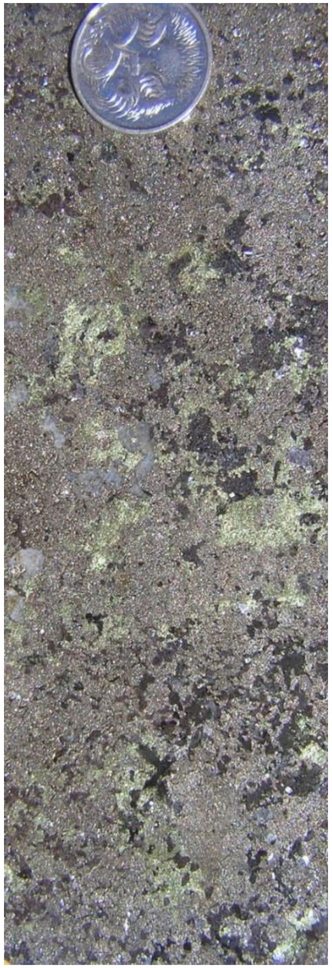
What is Artemis:

- Blind deposit of late fracture fill massive sulphide (Fe-Cu-Zn-Pb sulphides)
- Limited alteration halo or host rock brecciation
- Steep, tabular body, structurally controlled
- No significant magnetic or gravity expression
- Responsive to Down-hole and Across-hole EM

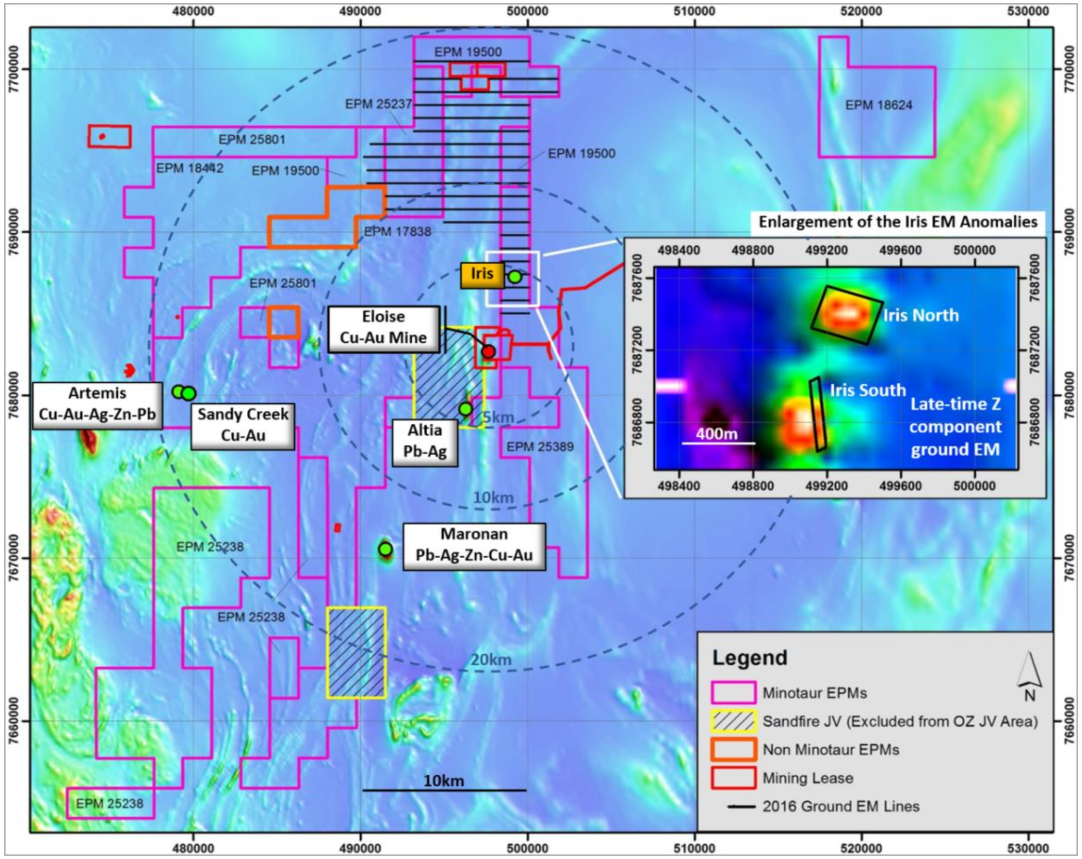


Discovery drillhole EL14D09, 166.6m: coarse, massive sulphides including chalcopyrite (yellow), sphalerite (black), pyrrhotite (bronze) and calcite (white to pale grey)

22m @ 31%Fe, 3.02% Cu, 3.81 g/t Au, 6.64% Zn, 1.35% Pb and 112 g/t Ag

ISCG Deposit Styles - Iris

- During 2016, under a new Minotaur-OZ Minerals JV, a focus area chosen was the Levuka Shear Zone, a known ISCG fluid conduit extending north from **Eloise Copper Mine** (+10Mt production – FMR Investments is owner and operator),



ISCG Deposit Styles - Iris

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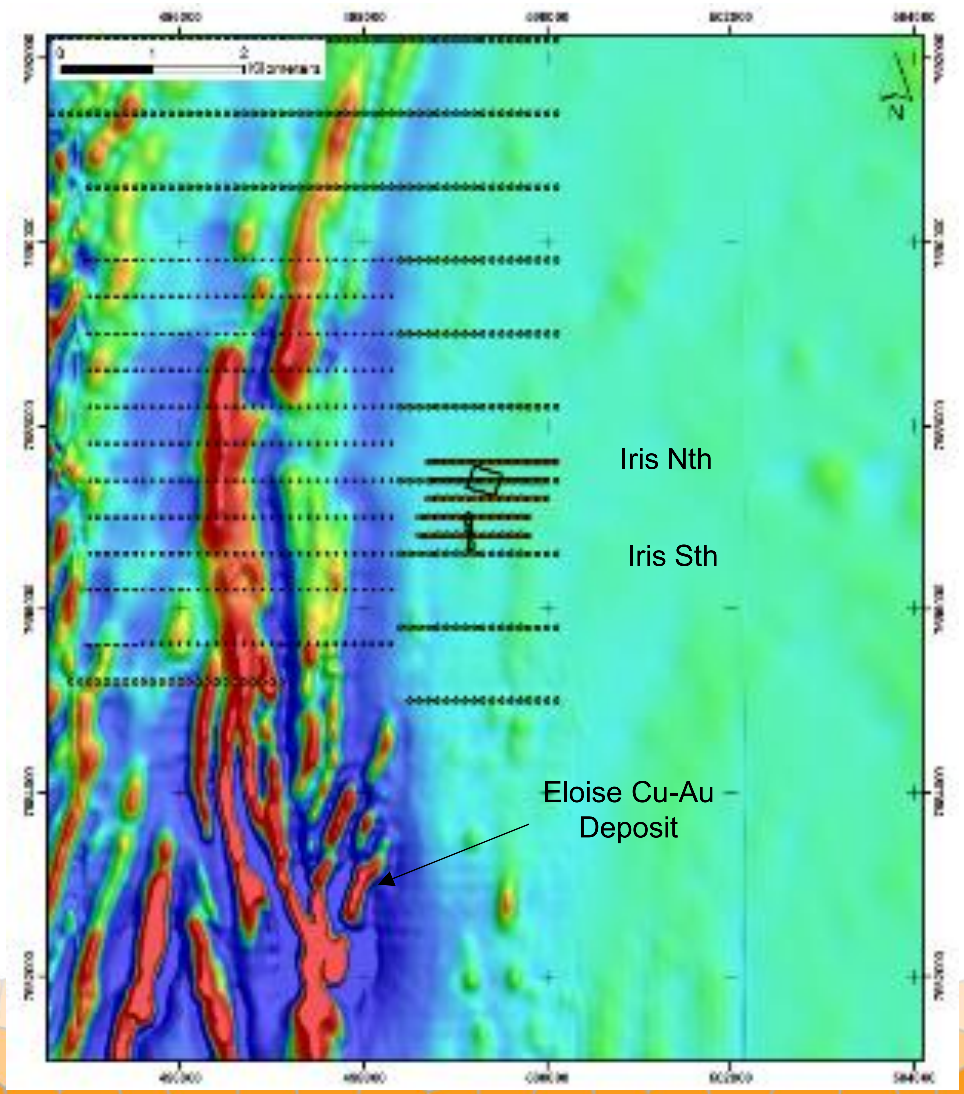
- The deepening cover northward along the shear corridor (80 to 200m) necessitated a costlier screening methodology, initially Moving Loop EM(800x100)and subsequent followup (200x50) to cover selected structural and lithological contacts within a magnetically quiet terrane.
- That work lead to the detection of the Iris North and Iris South conductive targets, 5km north of Eloise Mine, under c. 130m cover. No previous drilling.
- Iris North (1500S) and Iris South (3200S) conductive plates drill tested. Note Eloise Mine target conductance was 1000S

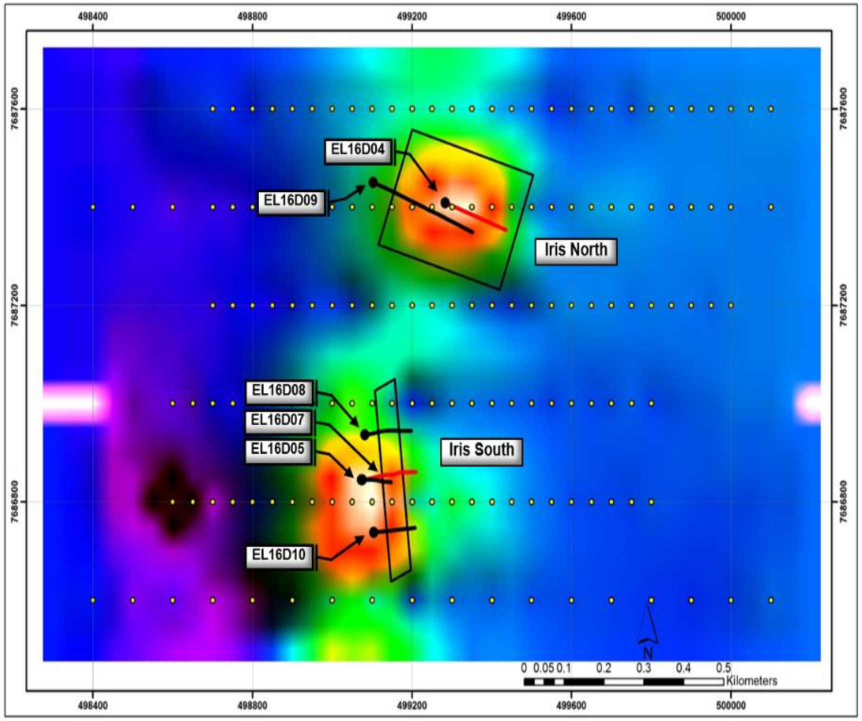


ISCG Deposit Styles - Iris

Highly encouraging pyrrhotite/chalcopyrite zones at Iris North and Iris South reminiscent of early intercepts at what is now the Eloise copper mine

- All holes intersected veinlet and breccia hosted pyrrhotite with chalcopyrite
- EL16D05 returned **38m @ 0.47% Cu and 0.08g/t Au** from 166m .The main breccia zone comprises **4m @ 1.65% Cu and 0.2g/t Au from 195m**
- EL16D08, 100m north of EL16D05, intersected**26m @ 0.73% Cu, 0.61g/t Au** from 168m including **0.4m @ 12.4% Cu and 14.3 g/t Au** in massive cpy-po vein at 175.3m

Iris EM conductive plates



Eloise – Iris Breccia Comparison

- The veinlet and pyrrhotite breccia systems at Iris bear remarkable similarities to Eloise Mine style mineralisation (breccia mineralogy, sulphides and textures).
- It is also instructive to note the first drillhole into the Eloise EM target (END07) drilled into the peak of that conductive anomaly, returned only weak mineralisation in pyrrhotite stringers. The main Eloise lode was subsequently intersected 300m to the south, off the conductive high.

Eloise Deposit (Levuka B lode)

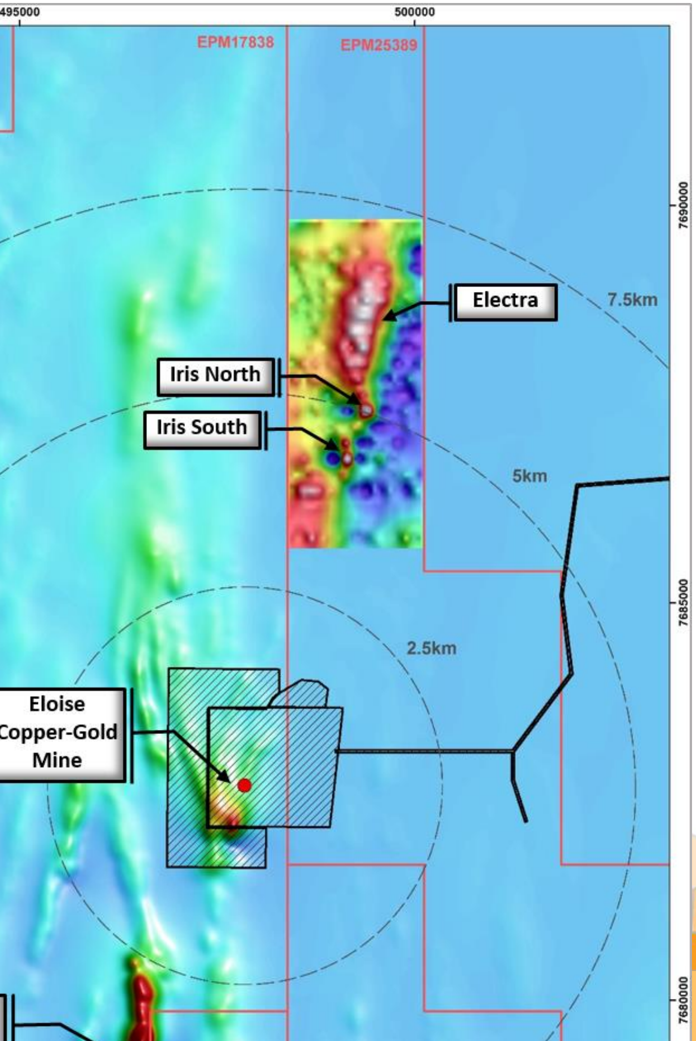
Iris South – EL16D05

Eloise Deposit

Iris North – EL16D04

Iris-Electra conductive system

Iris & Electra anomalies comprise a 2.7km long conductive system

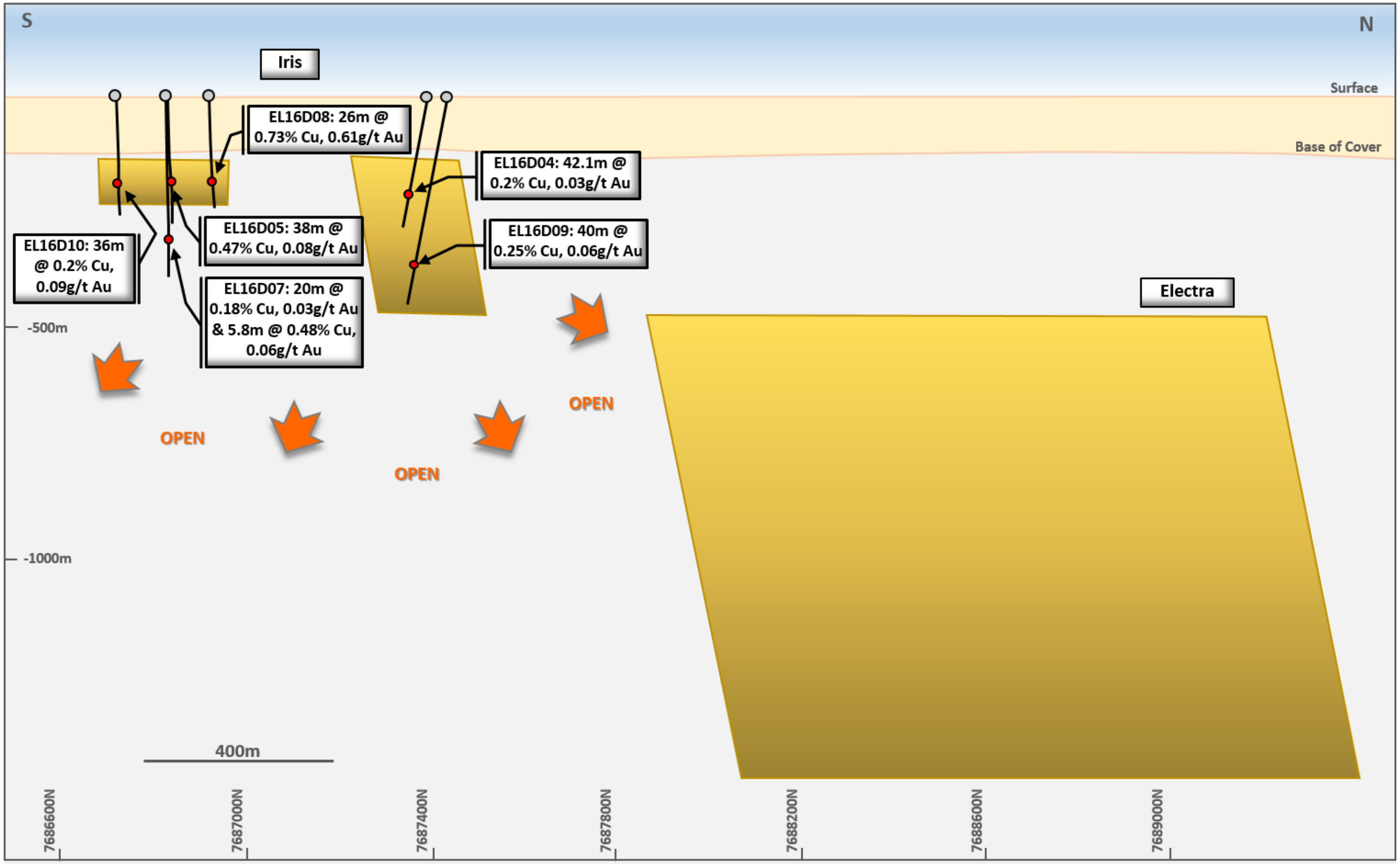


- Subsequent to Iris drilling, in-fill ground EM completed along 4km of strike to better define the Electra anomaly
  - EM lines spaced at 200m for 18 line km, with stations spaced at 50m intervals
  - Data clearly shows that Iris and Electra anomalies comprise a 2,700m long conductive system
- Electra resolved as a single conductor with strike of 1,400m
  - A very large, cohesive EM conductor extending from 470m below surface
  - Conductance response of 1,100 Siemens
  - Presents a compelling drill target

- Cautionary note: possible sources of the conductive EM response include: Chalcopyrite (a copper sulphide mineral) and/or Pyrite (an iron sulphide mineral) and/or Pyrrhotite (an iron sulphide mineral) or Graphitic schists and shales (forms of carbon). Graphite was not observed in any of the holes drilled at Iris and the host rocks at Electra are interpreted to be similar. Drill core, when available, will confirm the source of conductance.

Iris-Electra conductive system

- 2.7km long conductive zone
- Mineralisation open in all directions
- Possibility of copper-rich zones not directly associated with highest conductance



Iris/Electra long section EM plate models and current drill results

Can we make an ISCG discovery on the Gawler?

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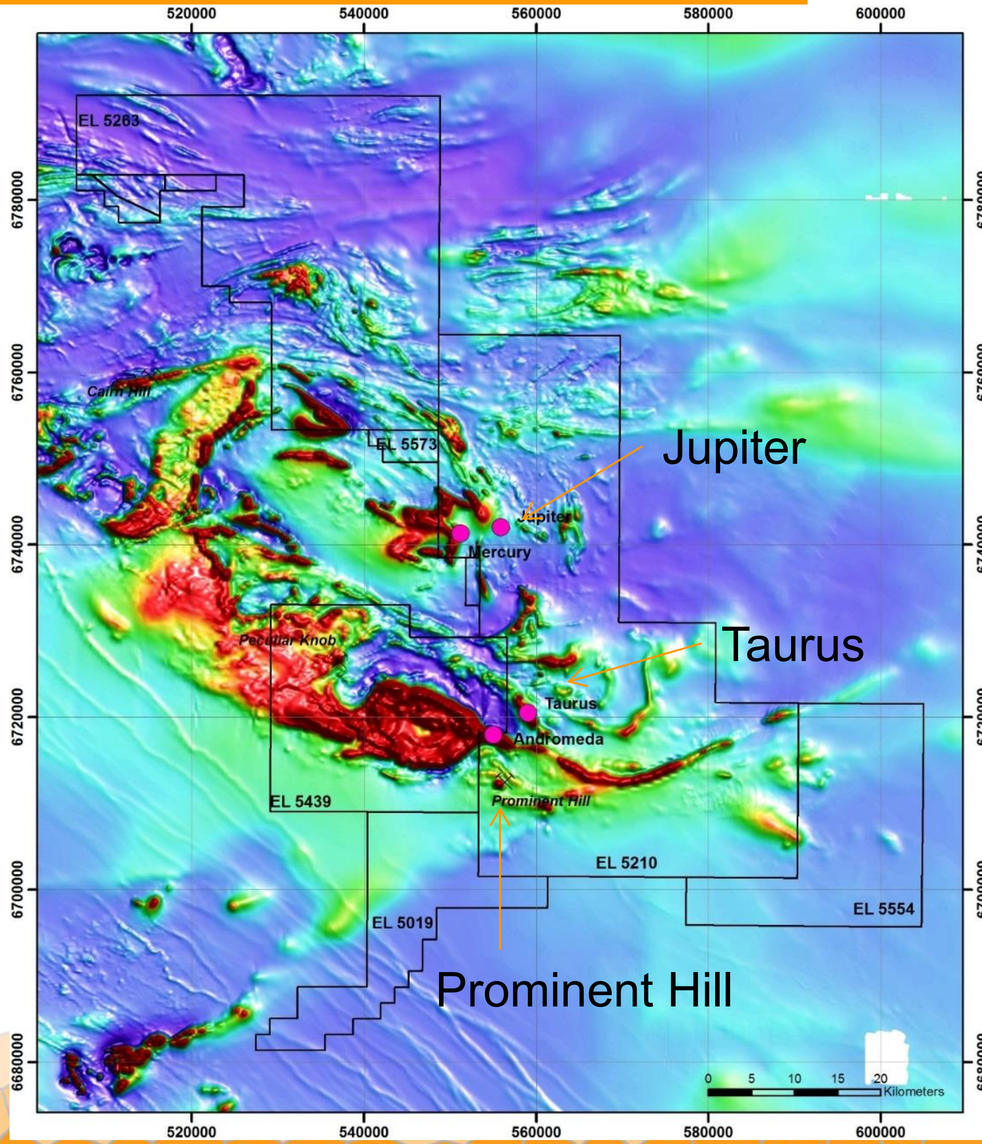
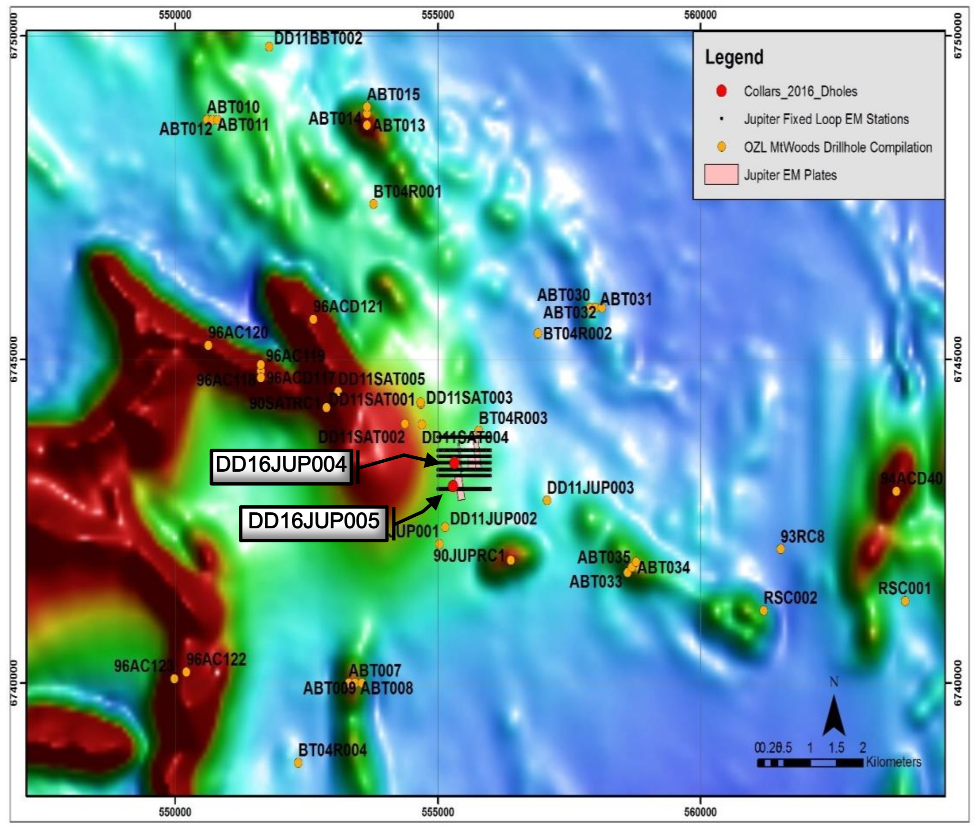
- SA Exploration toolbox dominated by magnetics and gravity (IOCG model). Can/should we also be exploring for ISCG's ?
- Mt Woods selected as appropriate terrane (IOCG fluids, structural conduits, reduced host rocks)
- Alliance with Oz Minerals: Minotaur generates targets from Oz database, jointly drill test jointly agreed targets
- Persistent evidence of ISCG alteration in database. Numerous targets selected together with followup ground geophysics
- Recently drill tested Taurus and Jupiter

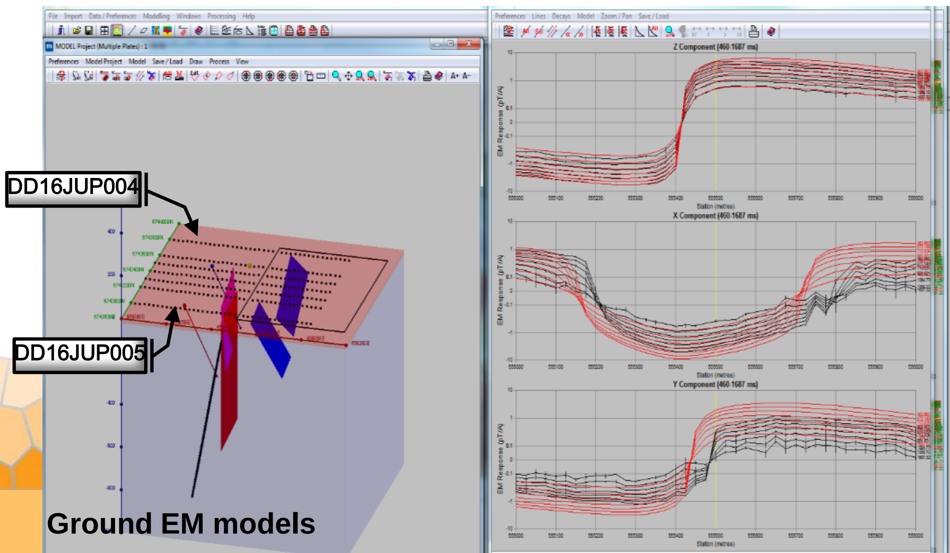


Jupiter ISCG Target

- Historic AEM data (one of few areas in Gawler where AEM can be used) and historic drill data support ISCG concept
- New ground EM surveys delineate appropriate conductor targets
- Main conductors modelled at >10,000 S:
  - Depth to top at 70-220m
  - Strike length 800m
  - Sub-vertical to steep-west dip
- 2 holes drilled to test main conductor: DD16JUP004 & DD16JUP005

EM conductors over RTP1VD magnetic image



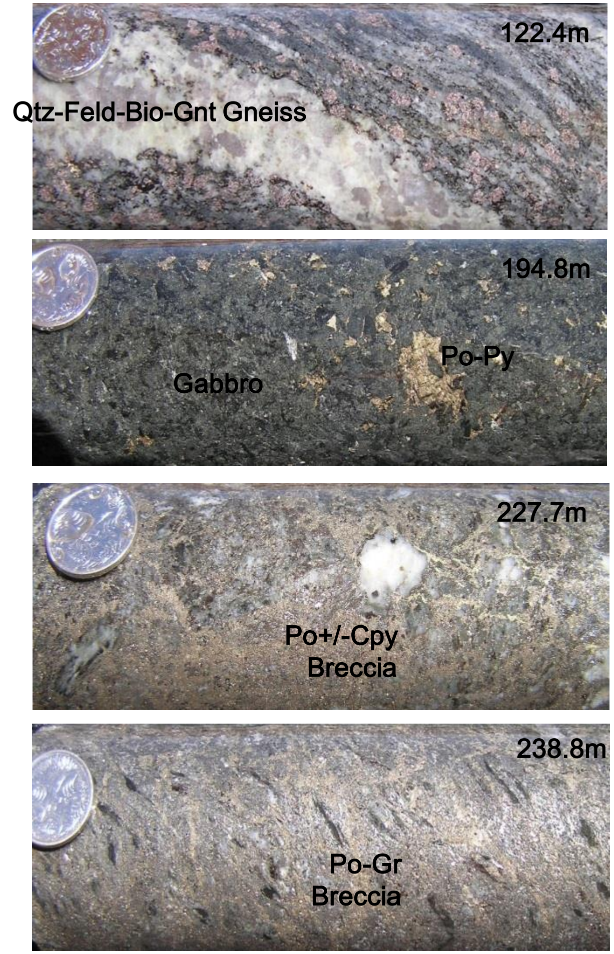


Jupiter Drill Results

MEP – OZL recently completed drill hole DD16JUP004

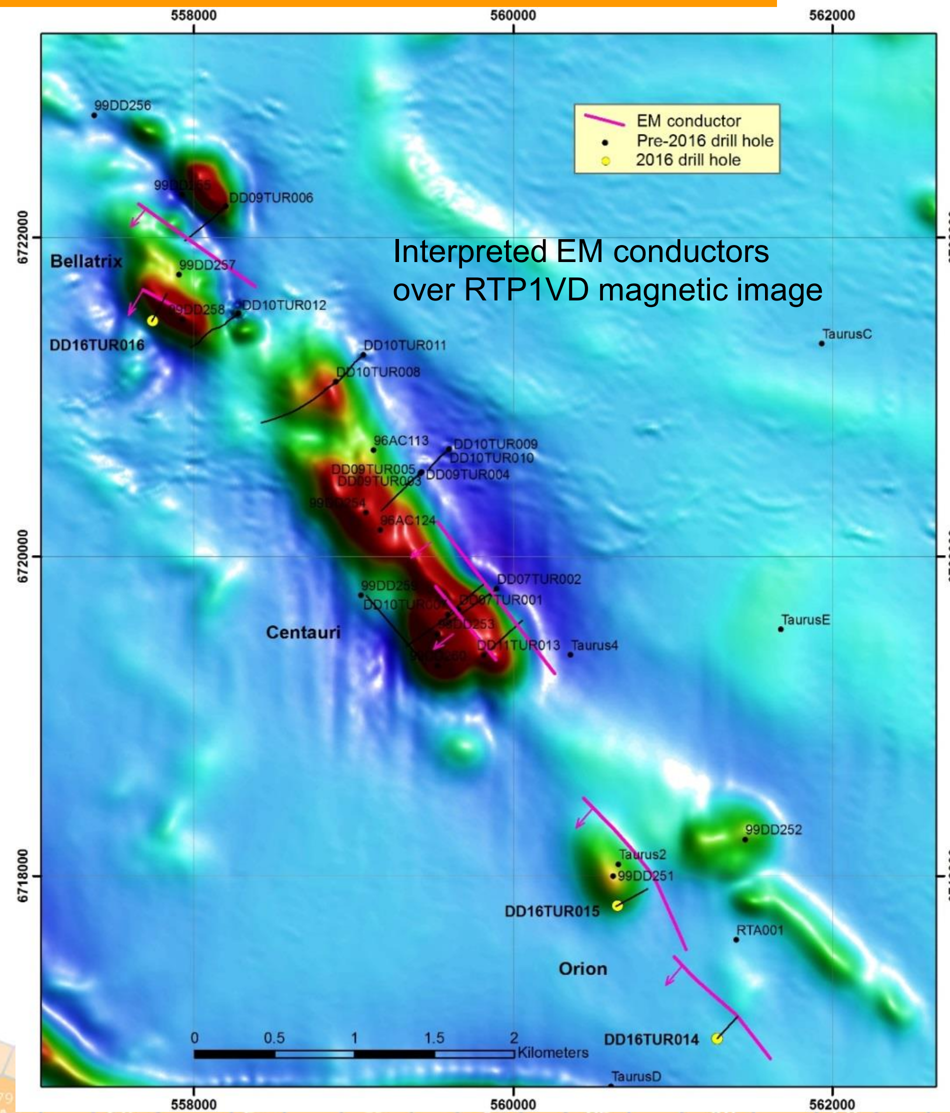
- ISCG style in pyrrhotite-matrix breccia is source of conductor
- Mineralisation synchronous with late brittle faults
- Pyrrhotite breccia drill intercepts includes:
  - *15m @ 0.21% Cu from 225m*
- Mineralisation not closed off by drilling

Proof-of-concept that ISCG style mineralisation occurs in the Mt Woods area - Jupiter district



Taurus – (Orion and Bellatrix Targets)

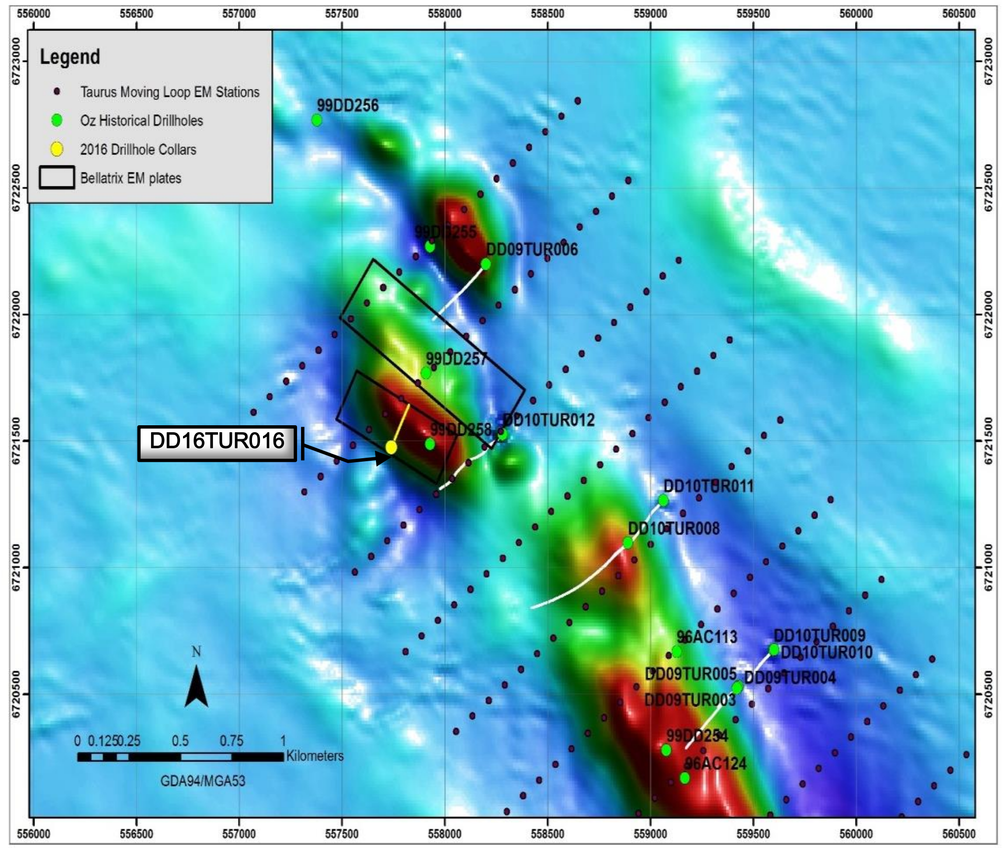
- Taurus is another structurally dismembered area of known IOCG fluid flow. Some historic holes reported high sulphide intercepts with mineralogical (po, py) and elemental association (Cu, Au, Fe, S, Co, Ni, Sb, Se, Te).
- Moving-loop (36.6km) and fixed-loop (16.6km) ground EM surveys successfully outline a series of west-dipping conductors in structural positions within and adjacent to magnetic bodies (**Orion, Centauri** and **Bellatrix)**
- Despite significant prior targeting, along +6km of this IOCG alteration complex, historical holes do not intersect these conductor plates
- Drill testing of Orion (2 holes) and Bellatrix West (1 hole)
- Orion – both holes intersected broad graphitic intervals
- Bellatrix – more interesting

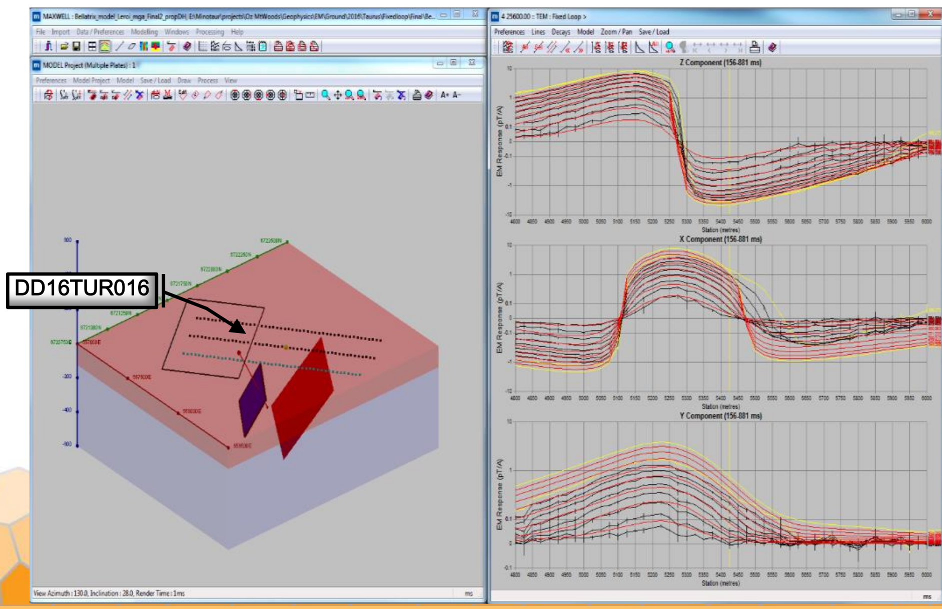


Bellatrix Western EM Target

- Moving loop western EM conductor modelled at ~6,000 Siemens:
  - Depth to top at 145m
  - Strike length 300m
  - Dips 68º southwest
  - Proximal to positive magnetic anomaly
- 1 hole drilled to test EM plate: DD16TUR016

W-dipping EM conductors (black) over RTP1VD





Ground EM models

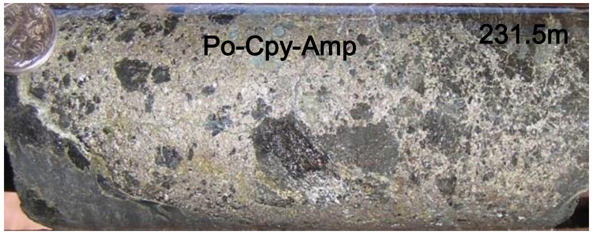
Bellatrix Drill Results

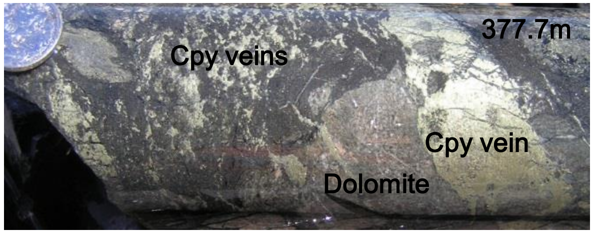
MEP – OZL recently completed drill hole DD16TUR016

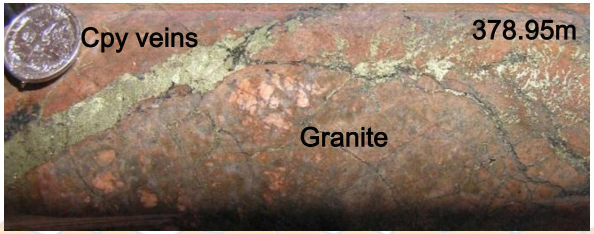
- Bellatrix intersects a hybrid ISCG-IOCG system with later stage ISCG overprinting IOCG
- Graphite-bearing intervals 226-248m, 366-390m
- ISCG style in pyrrhotite-matrix breccia and as late pyrrhotite-chalcopyrite veins, synchronous with late brittle faults
- IOCG style magnetite-pyrite+/-chalcopyrite skarn
- Best Drill intercepts include:
  - *9m @ 0.41% Cu from 242m, including 1m @ 1.67% Cu from 246m*
  - *3.6m @ 0.44% Cu from 366.4m including 1m @ 1.15% Cu from 367m*
  - *1.7m @ 1.89% Cu and 0.29g/t Au from 377.5m*
  - *4.2m @ 0.3% Cu from 386m*

Proof-of-concept that ISCG style mineralisation occurs in the Mt Woods area – Taurus district, Skylark Shear Zone

ISCG-styles







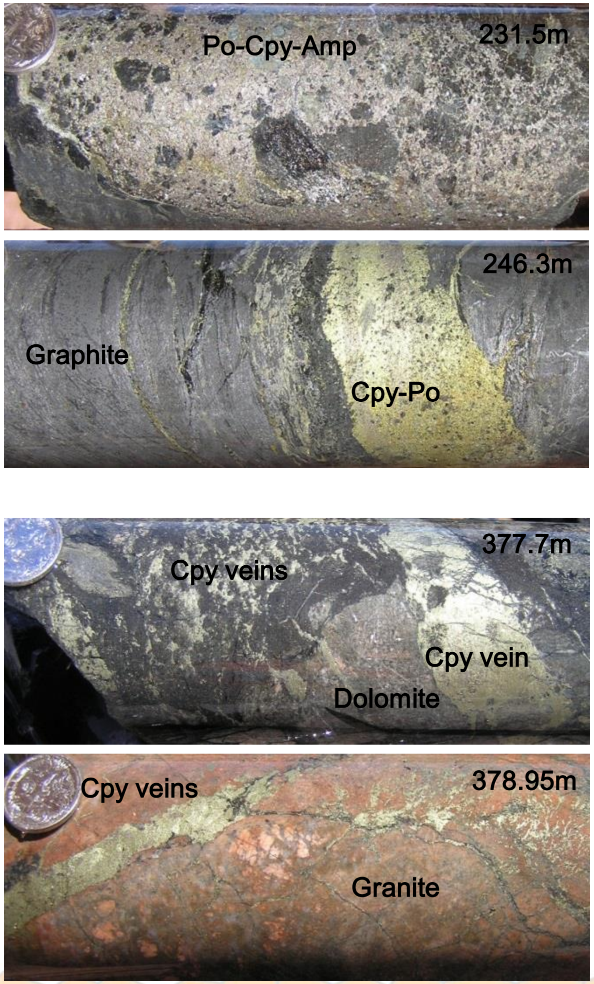
In Conclusion

- The first two ISCG style targets at Mt Woods yielded encouraging positive results. Much is still to be done in reviewing these results and following them up.

- We can confidently conclude at this point that yes, ISCG mineralisation certainly exists on the Gawler Craton, it is late stage, structurally focused and can be successfully detected through conductive cover using appropriate geophysical techniques.

- Explorers should factor this mineralisation style into their exploration programs, adjust their exploration toolbox accordingly, and aggressively pursue this higher grade Cu-Au style.

ISCG-styles



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- The Minotaur technical team, especially Andrew Thompson, Richard Flint and Glen Little
- OZ Minerals JV partnership at Eloise and Exploration Alliance at Mt Woods
- PACE Drilling support for Proof of Concept drill testing of Mt Woods targets
- The about to commence ARC Linkage Project through University of South Australia "Source to spectrum: Finding deposits beyond the Fe-oxide Cu-Au envelope" which will look deeper into the academic reasoning

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Disclaimer

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Information in this presentation that relates to exploration results for Minotaur Exploration Ltd is based on information compiled by Dr. A. P. Belperio, who is a Director and full-time employee of the Company and a Fellow of the Australian Institute of Mining and Metallurgy. Dr. Belperio has sufficient experience relevant to the style of mineralisation and type of deposits under consideration and to the activity that he has 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" (JORC Code). Dr. Belperio consents to inclusion of this information in the form and context in which it appears.

Appendix 1 – Drill results

MINOTAUR EXPLORATION

Target Name	Drillhole	East	North	Dip	Azimuth (Grid)	Depth EOH (m)
Orion	DD16TUR014	561279	6716978	-60	50	365.1
Orion	DD16TUR015	560654	6717812	-60	58	435.9
Bellatrix	DD16TUR016	557740	6721476	-60	27	390.6
Jupiter	DD16JUP004	555313	6743401	-60	90	315.0
Jupiter	DD16JUP005	555289	6743044	-60	90	360.8

Table 1: Drill collars for all holes completed at Mt Woods by MEP-OZL Alliance. Coordinates are GDA94, MAGA Zone 53. EOH denotes End of Hole. All holes drilled by diamond drill technique

Drillhole	From (m)	To (m)	Interval (m)	Cu (%)	Au (g/t)	Drillhole	From (m)	To (m)	Interval (m)	Cu (%)	Au (g/t)	Drillhole	From (m)	To (m)	Interval (m)	Cu (%)	Au (g/t)
DD16JUP004	225	226	1	0.26	0.08	**DD16TUR016**	227.3	228	0.7	0.12	-0.01	**DD16TUR016**	272	273	1	0.14	0.02
DD16JUP004	226	227	1	0.21	-0.01	**DD16TUR016**	228	229	1	0.14	-0.01	**DD16TUR016**	286	287	1	0.12	-0.01
DD16JUP004	227	228	1	0.24	-0.01	**DD16TUR016**	229	230	1	0.22	-0.01	**DD16TUR016**	287	288	1	0.11	-0.01
DD16JUP004	228	229	1	0.24	-0.01	**DD16TUR016**	230	231	1	0.17	-0.01	**DD16TUR016**	288	289	1	0.13	-0.01
DD16JUP004	229	230	1	0.5	-0.01	**DD16TUR016**	231	232	1	0.16	-0.01	**DD16TUR016**	326	327	1	0.14	-0.01
DD16JUP004	230	231	1	0.22	-0.01	**DD16TUR016**	232	233	1	0.1	-0.01	**DD16TUR016**	335	336	1	0.1	-0.01
DD16JUP004	231	232	1	0.15	-0.01	**DD16TUR016**	233	234.2	1.2	0.49	-0.01	**DD16TUR016**	337	337.8	0.8	0.13	0.01
DD16JUP004	232	233	1	0.11	-0.01	**DD16TUR016**	236	237	1	0.16	-0.01	**DD16TUR016**	346	347	1	0.15	-0.01
DD16JUP004	233	234	1	0.22	0.04	**DD16TUR016**	237	238	1	0.43	0.01	**DD16TUR016**	358	359	1	0.14	-0.01
DD16JUP004	234	235	1	0.12	-0.01	**DD16TUR016**	238	239	1	0.13	0.01	**DD16TUR016**	366.4	367	0.6	0.2	0.02
DD16JUP004	235	236	1	0.16	-0.01	**DD16TUR016**	242	243	1	0.11	-0.01	**DD16TUR016**	367	368	1	1.15	-0.01
DD16JUP004	236	237	1	0.23	-0.01	**DD16TUR016**	243	244	1	0.17	-0.01	**DD16TUR016**	368	369	1	0.22	-0.01
DD16JUP004	237	238	1	0.15	-0.01	**DD16TUR016**	244	245	1	0.48	-0.01	**DD16TUR016**	369	369.5	0.5	0.11	-0.01
DD16JUP004	238	239	1	0.14	-0.01	**DD16TUR016**	245	246	1	0.3	-0.01	**DD16TUR016**	369.5	370	0.5	0.12	0.02
DD16JUP004	239	240	1	0.2	-0.01	**DD16TUR016**	246	247	1	1.67	-0.01	**DD16TUR016**	372	373	1	0.13	-0.01
DD16TUR016	203	204	1	0.11	-0.01	**DD16TUR016**	247	248.1	1.1	0.55	-0.01	**DD16TUR016**	376	377.5	1.5	0.12	-0.01
DD16TUR016	204	205	1	0.11	-0.01	**DD16TUR016**	248.1	249	0.9	0.12	-0.01	**DD16TUR016**	377.5	378	0.5	1.23	0.32
DD16TUR016	211	212	1	0.19	0.01	**DD16TUR016**	249	250	1	0.12	-0.01	**DD16TUR016**	378	379.2	1.2	2.17	0.28
DD16TUR016	212	213	1	0.14	-0.01	**DD16TUR016**	250	251	1	0.14	0.02	**DD16TUR016**	386	387	1	0.37	-0.01
DD16TUR016	217	218	1	0.25	-0.01	**DD16TUR016**	256	257	1	0.14	-0.01	**DD16TUR016**	387	388	1	0.38	-0.01
DD16TUR016	218	219	1	0.11	-0.01	**DD16TUR016**	257	258	1	0.11	-0.01	**DD16TUR016**	388	389	1	0.21	-0.01
DD16TUR016	222	223	1	0.15	-0.01	**DD16TUR016**	267	268	1	0.11	-0.01	**DD16TUR016**	389	390.2	1.2	0.27	-0.01
DD16TUR016	223	224	1	0.11	-0.01	**DD16TUR016**	268	269	1	0.14	-0.01						

Table 2: Significant intercepts, as per text in body of presentation, for Bellatrix and Jupiter drill holes Note: depths listed are downhole depths and drill hole intercepts are all above 0.1% Copper cut-off.

Appendix 2 – JORC Code, 2012 Edition, Table 1

MINOTAUR EXPLORATION

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Section 1: Sampling Techniques and Data

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

Criteria	JORC Code explanation	Commentary
Sampling techniques	*Nature and quality of sampling (eg 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.*	• Assay results in the body of this presentation pertain to drill holes DD16TUR016 and DD16JUP004 from the Taurus and Jupiter Prospects. Drill holes DD16TUR014-015 and DD16JUP005 did not return assays of any significance and are not reported in this presentation; the drill core details for these holes are presented in Table 1 of Appendix 1. • The drill holes were rotary mud drilled through the cover sequence then drilled with HQ core from the top of basement, reducing the diameter to NQ2 core once into solid fresh rock. The diamond coring drilling technique was employed to appraise the nature of basement lithologies for gold and base metal mineralisation. • The drill bit sizes employed to sample the zones of interest are considered appropriate to indicate the degree and extent of mineralisation. • The majority of samples assayed were 1/3 cut drill core with composite two metre lengths, whilst mineralised sections of holes were 1/2 cut core sampled every one metre or as near as possible depending on geological contacts. Sampling was undertaken on all basement core.
	Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.	• Core recovery averaged >99%. Lab coarse crush and pulp duplicate samples were collected at a rate of 1 in 50.
	Aspects of the determination of mineralisation that are Material to the Public Report.	• The entire cored interval within the drill hole has been geologically logged in detail. Specific gravity measurements were determined on entire third and half core as used for the geochemical analysis. Core orientation determined where possible and photographs taken of all drill core trays plus detailed photography of representative lithologies and mineralisation. • There is no apparent correlation between ground conditions and assay grade.

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Criteria	JORC Code explanation	Commentary
		• The Cu and Au results for the duplicate core and pulp samples submitted for assay correlate well with the Cu and Au assays for the submitted alpha samples.
	In cases where 'industry standard' work has been done this would be relatively simple (eg 'reverse circulation drilling was used to obtain 1m samples from which 3kg was pulverised to produce a 30g 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 (eg submarine nodules) may warrant disclosure of detailed information.	• 1 metre samples (or as close as reasonable based on geological contacts) were considered appropriate for the laboratory analysis of intervals with visible mineralisation. 2 metre composite samples were considered appropriate for areas where mineralisation was not expected. • All samples, as described above, were sent to Bureau Veritas laboratory in Adelaide for industry standard sample preparation and geochemical analysis.
Drilling techniques	*Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg 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).*	• Drilling contractor Titeline completed drill holes DD16TUR014–016 and DD16JUP004–005. Drill holes were rotary mud drilled (HWT) through the cover sequence to basement then drilled in HQ core to solid ground and then drilled in NQ2 core to EOH. A Reflex single shot camera was used every ~30m by Titeline to determine hole orientation. The HQ and NQ2 size cored portions of the hole have been oriented for structural logging using the Coretell orientation tool. The drilling was supervised by experienced Oz Minerals geological personnel.
Drill sample recovery	*Method of recording and assessing core and chip sample recoveries and results assessed.*	• Drill core recovery was determined by measuring the length of core returned to surface against the distance drilled by the drilling contractor. Core recovery averaged >99%. There is no apparent correlation between ground conditions and metal grade.
	Measures taken to maximise sample	• Ground conditions were suitable for standard core drilling. Recoveries and ground conditions have been

Appendix 2 – JORC Code, 2012 Edition, Table 1

MINOTAUR EXPLORATION

Criteria	JORC Code explanation	Commentary
	recovery and ensure representative nature of the samples.	monitored during drilling. There was no requirement to conduct drilling with triple tube.
	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.	• There is no apparent relationship between sample recovery and grade. Sample bias does not appear to have occurred.
Logging	*Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.*	• Geological logging of the cover sequence and the cored basement has been conducted by Oz Minerals staff geologists. The level of detail of logging has been sufficient for this early-stage exploration program. The drill core has been oriented where possible and structural data has been recorded. No geotechnical logged has been conducted as the holes are early stage exploration drilling.
	Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.	• Geological logging is qualitative. Core photos have been taken for the entire cored sections of each hole.
	The total length and percentage of the relevant intersections logged.	• Drill holes DD16TUR014–016 and DD16JUP004–005 have been geologically logged for their entire length in sufficient detail to make informed assessment of the geology and subsequent assay results.
Sub-sampling techniques and sample preparation	*If core, whether cut or sawn and whether quarter, half or all core taken.*	• Drill core was cut using an industry standard automatic core saw. The majority of samples assayed were two metre lengths of 1/3 core, though one metre, or as close as reasonably possible to geological boundaries, ½ core lengths applied within zones of visible sulphides.
	If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.	• Only assays of drill core samples are reported in this document.

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MINOTAUR EXPLORATION

Criteria	JORC Code explanation	Commentary
	For all sample types, the nature, quality and appropriateness of the sample preparation technique.	• 1m ½ core samples (or as close as reasonable) in the mineralised zone and 2m 1/3 core samples outside the mineralised zone are considered to be appropriate sample sizes for the style of mineralisation being targeted.
	Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.	• Detailed logging of the drill core was conducted to sufficient detail to maximize the representivity of the samples when deciding on cutting intervals.
	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.	• Duplicate samples from the drill core were included at the rate of 1 duplicate per 50 alpha samples for DD16TUR016 and DD16JUP004. Geochemical standards and blanks were also used for QA/QC (see section below).
	Whether sample sizes are appropriate to the grain size of the material being sampled.	• 1/3 cut samples averaged 3.1kg and ½ cut samples samples averaged 2.5kg, and are considered appropriate for the type, style and thickness of mineralisation tested.
Quality of assay data and laboratory tests	*The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.*	• All samples were submitted to Bureau Veritas laboratory in Adelaide for sample preparation and analysis. Samples were crushed, pulverized with 90% passing 75 microns, then analysis for Au by fire assay method with AAS finish (method FA001), for an additional 56 elements prepared by lithium borate fusion with either nitric or modified acid digest, with either AES or MS finish. (LB101, LB102, MA201, MA202.)
	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.	

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Criteria	JORC Code explanation	Commentary
	Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.	• Duplicate samples were submitted for assay at a rate of 1 in 50 for holes DD16TUR016 and DD16JUP004. • Standards (commercial reference material) were included in the samples submitted to the laboratory at a rate of 1 in 50. Blanks were included in the laboratory submission at a rate of 1 in 50. • For the laboratory results received and reported in the body of this document an acceptable level of accuracy has been confirmed by Minotaur's QAQC protocols.
Verification of sampling and assaying	*The verification of significant intersections by either independent or alternative company personnel.*	• All drilling data including collar coordinates, hole orientation, total depth, sampling intervals and lithological logging were recorded, using GBIS logging software (with inbuilt data validation) by OZ Minerals' staff who conducted the drill program. Significant intersections have been verified by OZ Minerals' project geologists and database manager.
	The use of twinned holes.	• No twinned holes were drilled during this program.
	Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.	• All core logging and sampling data have been uploaded to OZ Minerals' geological database and validated using OZ Minerals' data entry procedures.
	Discuss any adjustment to assay data.	• No adjustments to assay data were undertaken.
Location of data points	*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.*	• Drill collar positions are located with a handheld GPS. The level of accuracy of the GPS is approximately +/- 3m and is considered adequate for this first-pass level of exploration drilling. • Downhole surveys have been conducted using a Reflex single shot camera. Surveys have generally been conducted every 30m downhole which is considered adequate for this early stage of exploration.
	Specification of the grid system used.	• Grid system used is GDA94, Zone 53.
	Quality and adequacy of topographic control.	• The Taurus area is gently undulating with minimal elevation change, and detailed elevation data is not required for this early stage of exploration. The Jupiter prospect has little change in elevation.

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Criteria	JORC Code explanation	Commentary
Data spacing and distribution	*Data spacing for reporting of Exploration Results.*	• Sample spacing of 1 metre downhole intervals (or as close as reasonably possible to 1m) was used within zones of visible mineralisation and 2 metre downhole sampling was used where mineralisation was not apparent.
	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.	• This document does not relate to a Mineral Resource estimation. The drill hole spacing and downhole sample spacing are sufficient to enable an initial interpretation of the data and development of a preliminary geological model.
	Whether sample compositing has been applied.	• The majority of samples assayed were two metre lengths outside of mineralisation and one metre lengths (or as close as reasonably possible based on geology) were applied within zones of visible sulphides.
Orientation of data in relation to geological structure	*Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.*	• Drill holes DD16TUR014–016 and DD16JUP004–005 were drilled to test modelled EM conductors and have drilled as close as practical to perpendicular to the modelled EM plates. Structural logging of the core, and the location of the mineralised sections relative to the modelled plate, indicate that the holes are placed in the most favorable orientation for testing the targeted structures.
	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.	• No orientation based sampling bias is apparent.
Sample security	*The measures taken to ensure sample security.*	• Processing, cutting and sampling of the drill core were undertaken on-site at Prominent Hill by Oz Minerals' personnel. Core is stored at Oz Minerals' core library facility at Prominent Hill.
Audits or reviews	*The results of any audits or reviews of sampling techniques and data.*	• No audits or reviews of sampling techniques and data have been undertaken at this time.

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MINOTAUR EXPLORATION

Section 2: Reporting of Exploration results

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

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	*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.*	• Drill holes DD16TUR014–016 and DD16JUP004–005 were drilled on EL 5210, which is 100% owned by Oz Minerals Prominent Hill Operations Pty Ltd, as part of an exploration agreement with Minotaur Exploration (MEP) which is yet to earn any equity in the tenement. • Registered native title claims exist over sections of EL 5210 (Antakirinja Native Title Claimant and Arabanna Native Title Claimant).
	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.	• EL 5210 is secure, compliant with the Conditions of Grant and there are no known impediments to operating in the Taurus and Jupiter area.
Exploration done by other parties	*Acknowledgment and appraisal of exploration by other parties.*	• Previous exploration data available for the Taurus Prospect includes open file aeromagnetic data, historical drill holes by Normandy Exploration and Minotaur Resources along with detailed ground gravity survey data and diamond drilling by Oz Minerals (13 holes). No previous ground EM surveys had been undertaken at the Taurus Prospect. • At the Jupiter Prospect and surrounding area, previous investigations include airborne and ground EM surveys, airborne magnetic and gravity surveys along with some diamond drilling.
Geology	*Deposit type, geological setting and style of mineralisation.*	• Within the eastern portion of the Mt Woods Inlier, targeted mineralisation styles are iron oxide Cu-Au (IOCG) and iron sulphide Cu-Au (ISCG) mineralisation associated with ~1595–1585Ma volcanism (Gawler Range Volcanics) and emplacement of mafic–granitic plutons (Hiltaba Suite).

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Criteria	JORC Code explanation	Commentary
Drill hole Information	*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.*	• Collar easting and northing plus drill hole azimuth, dip and final depth for DD16TUR014–016 and DD16JUP004–005 are presented in Table 1 of Appendix 1 of the presentation document. • Collar elevations are based upon hand-held GPS data.
	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.	• No data deemed material to the understanding of the exploration results from drill holes DD16TUR016 and DD16JUP004 have been excluded from this document. Drill sample assay data omitted from this report are not considered material; the data from outside of the mineralised zones presented in Table 2 of Appendix 1 typically returned insignificant gold and copper values.
Data aggregation methods	*In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.*	• The weighted average of the mineralised intervals (referred to in the body of this document) were calculated by multiplying the assay of each drill sample by the length of each sample, adding those products and dividing the product sum by the entire downhole length of the mineralised interval. • A minimum cut-off of 0.1% Cu has been applied to the assay data presented in this document and in Table 2 of Appendix 1.

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Criteria	JORC Code explanation	Commentary
	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.	• No short lengths of high-grade copper-gold mineralisation have been aggregated with longer lengths of low-grade copper-gold mineralisation. Some drill intercepts in the presentation for assays in hole DD16TUR016 include the weighted average for the mineralised intervals. The data for these weighted averages, as sampled, is presented in Table 2 of Appendix 1.
	The assumptions used for any reporting of metal equivalent values should be clearly stated.	• No metal equivalent values have been reported in this document.
Relationship between mineralisation widths and intercept lengths	*These relationships are particularly important in the reporting of Exploration Results.*	• Drill holes DD16TUR014–016 and DD16JUP004–005 were drilled to test modelled EM conductors and in each case have drilled as close as possible to perpendicular to the modelled EM plates. Structural logging of the core, and the location of the mineralised zones relative to the modelled plate, indicates that the holes are placed in the most favorable orientation for testing the targeted structures.
	If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.	• The geometry of the mineralisation with respect to the drill hole angle is uncertain at this early stage of exploration.
	If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').	• True widths of mineralisation are unknown. All depths and intervals referenced are downhole depths.
Diagrams	*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*	• The locations of the EM targets at the Taurus and Jupiter Prospects are shown in the body of this document. • The location of the modelled Taurus and Jupiter EM plates are shown in relation to the RTP1VD magnetics for each target in the body of this document.

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Criteria	JORC Code explanation	Commentary
	of drill hole collar locations and appropriate sectional views.	
Balanced reporting	*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.*	• Some drill assay data for drill holes DD16TUR014–016 and DD16JUP004–005 have been omitted from this document as they are not considered material. Assay data from outside of the mineralised zones presented in Table 2 of Appendix 1 typically returned insignificant copper and gold values.
Other substantive exploration data	*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.*	• No meaningful and material exploration data have been omitted.
Further work	*The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).*	• Additional ground EM surveys, downhole EM surveying at DD16TUR016 and/or drill holes near DD16TUR016 are being considered.

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MINOTAUR EXPLORATION

Criteria	JORC Code explanation	Commentary
	Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.	• Exploration of the targets at Jupiter and Bellatrix are at very early stages and it is uncertain if extensions to mineralised are evident with interpretation ongoing, thus there are no diagrams included showing potential mineralisation extensions