

# **GREENVALE PROJECT EXPLORATION UPDATE**

# EXCITING DRILL TARGETS IDENTIFIED AT GALAH DAM ZINC-GOLD-COPPER PROSPECT

- Galah Dam prospect is a large alteration system containing zinc, gold and copper mineralisation.
- Four previously untested high order IP chargeability anomalies identified by 3D modelling of IP data.
- Drilling of IP anomalies to commence after land access procedures met.

Superior Resources Limited (ASX Code: **SPQ**) (**Superior** or **Company**) is pleased to provide an update on the exploration activities that are planned at its Galah Dam prospect, which is located within the Company's 100%-owned Greenvale Project (Figure 1).

## Highly prospective VMS target

Immediately following the recent grant of the new "Cockie South" exploration permit (EPM26165; refer ASX Announcement "Quarterly Activities Report" dated 31 December 2016), Superior completed an extensive digital compilation and review of historic data over the "Old Galah Dam Prospect". This exercise included digital compilation of drill hole data and digital modelling of geophysical induced polarization (**IP**) and resistivity survey data.

The result of this review has revealed the following:

- Galah Dam is a large alteration zone similar to the alteration zone at the Balcooma and Surveyor volcanogenic massive sulphide (**VMS**) deposits located 20km away;
- previous drilling at the Old Galah Dam Prospect confirmed the presence of zinc, gold and copper mineralisation within the alteration system;
- Superior's 3D IP modelling identified four high order chargeability anomalies that have not previously been drill-tested; and
- Galah Dam is very prospective for the presence of VMS zinc, gold and copper deposits.

Managing Director, Mr Peter Hwang said,

"We are very pleased with the work completed so far on the Galah Dam prospect, which has shaped up to be a substantially more significant exploration project than was originally appreciated. Previous explorers focused their attention on the known zinc, gold and copper mineralisation at a part of the prospect that we have termed the "Old Galah Dam Prospect". However, the "Old Galah Dam Prospect" does not have the significantly higher order chargeability and conductivity responses at depth as the four anomalies identified by our modelling.

The Galah Dam prospect has greatly enhanced the significance of the Company's overall Greenvale Project. We are especially pleased as the new Cockie South EPM also includes the Steam Engine Gold Deposit, which we will also be progressing during 2017.

With the current strong support that we are receiving from the investor markets together with the



quality of the Company's zinc, gold and copper targets, we strongly feel that 2017 is shaping up to be an exciting year for the Company."

#### Next steps at Galah Dam

The Company is accelerating the land access and Aboriginal cultural heritage notification processes with landholders and native title parties, which it hopes to complete prior to the commencement of this year's field season in late March to early April.

An initial 600m RC drilling program is planned to be conducted once full access is obtained and drill hole collars have been established in the field.

## Galah Dam Prospect

#### Background

The Galah Dam Zinc-Gold-Copper Prospect lies about 25km northwest of Greenvale in north Queensland (Figure 1). The deposit lies some 10km northeast of Superior's One Mile Project.

Zinc-gold-copper mineralisation was discovered during shallow drilling at Galah Dam by Homestake Australia Limited in 1991. Subsequent drilling by Homestake and others has extended the mineralisation to depth (the "Old Galah Dam Prospect"). The area has been tightly held by various explorers until it was recently relinquished making the area available for application by Superior.

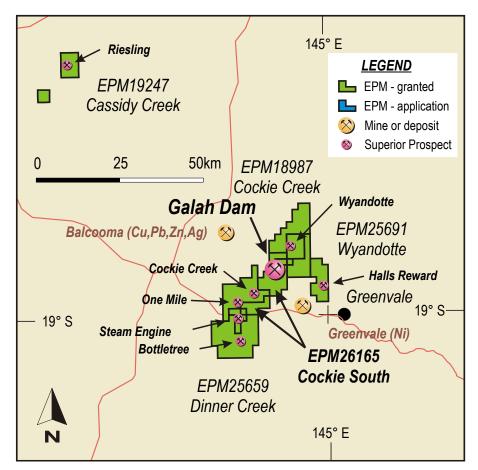


Figure 1. Map of the Greenvale Project showing the location of EPM26165 and the Galah Dam Zinc-Gold-Copper Prospect.



#### Alteration Zones

Superior has undertaken a program of digital compilation and interpretation of previous exploration data over the Old Galah Dam Prospect and surrounding area. This data compilation work has been done from digital scans of hard-copy reports held at the Queensland Department of Natural Resources and Mines and of data from other sources. This work is continuing.

The Galah Dam zinc-gold-copper mineralisation lies within an extensive alteration zone (Snake Creek alteration zone) which is similar to the alteration zone associated with the Balcooma VMS deposits located 20km northwest of Galah Dam (Figure 2). The Balcooma area is not held by Superior. Both alteration zones are folded into anticlinal features. Because of upper greenschist metamorphism, both alteration zones are now essentially quartz-muscovite schists with variable amounts of disseminated pyrite. The Snake Creek alteration zone also contains kyanite and sillimanite reflecting its aluminous nature and metamorphic grade. Both alteration zones form topographic highs.

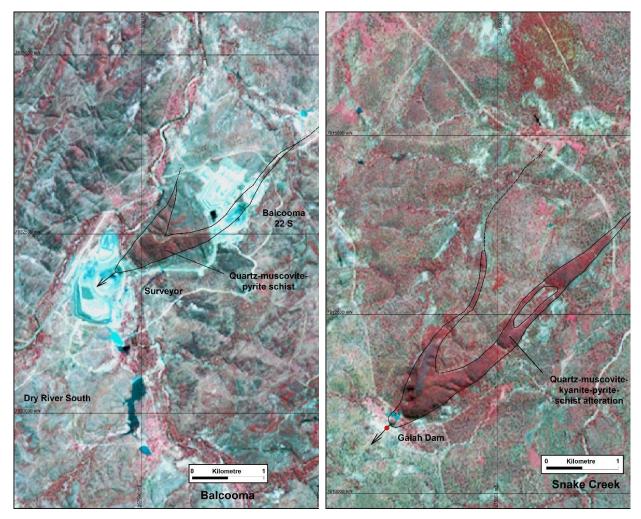


Figure 2. Aster satellite imagery of the folded Balcooma alteration zone (left) and the folded Snake Creek alteration zone (right) (The alteration zones are dark brown in the images and are outlined by a black line). At Balcooma, the Balcooma Deposit is located on the eastern limb of the folded alteration zone and the Surveyor Deposit is located on the fold axis or 'nose' of the fold. The known Galah Dam mineralisation is located on the 'nose' of the fold in the Snake Creek alteration zone in a similar position to the Surveyor Deposit at Balcooma. At Galah Dam, the drilling to date has been largely restricted to the Old Galah Dam Prospect on the fold 'nose' leaving the remainder of the Snake Creek alteration zone essentially untested by drilling. The Balcooma area is not held by Superior Resources Limited.



## Previous drill hole results

Compilation of the drill hole results at the Old Galah Dam Prospect indicates sub-economic intersections of zinc, gold and copper (Table 1). Despite being sub-economic, the drill hole intersections indicate that the Galah Dam area is a very prospective environment for VMS deposits. Lead values are low which is in accordance with the host rocks being primitive mantle derived rocks.

Hole	From	То	Length	Zinc	Gold	Copper	Silver	Lead
Name	(m)	(m)	(m)	(%)	(g/t)	(%)	(g/t)	(%)
05GDRC002	99.00	108.00	9.00	1.53	0.32	0.13	5.70	0.07
05GDRC002	120.00	126.00	6.00	2.12	0.17	0.10	2.00	
05GDRC002	159.00	171.00	12.00	1.95	0.41	0.12	5.98	0.04
05GDRC003	126.00	129.00	3.00	1.16	2.56	0.22	9.20	0.02
05GDRC003	141.00	144.00	3.00	1.82	0.61	0.12	6.30	0.07
GDDH01	222.00	230.00	8.00	3.53	0.26	0.17		
GDDH01	242.00	242.42	0.42	2.29	0.05	0.02		
GDDH01	243.36	244.00	0.64	2.95	0.18	0.05		
GDDH01	250.38	251.03	0.65	3.45	0.54	0.51		
GDP004	76.00	78.00	2.00	1.26	0.42	0.12		
GDP007	101.00	106.00	5.00	2.41	1.21	0.18	4.80	0.05
GDP007	118.00	121.00	3.00	1.44	0.70	0.14	6.33	0.02
GDP009	66.00	70.00	4.00	1.47	0.48	0.13	5.25	0.16
GDP009	74.00	77.00	3.00	1.64	0.65	0.22	5.67	0.05
GDP013	73.00	74.00	1.00	1.65	0.36	0.12	8.00	0.00
GDP013	76.00	80.00	4.00	1.38	0.28	0.10	4.00	0.05
GDP014	64.00	80.00	16.00	4.44	1.11	0.38	13.31	0.06
GDP014	102.00	110.00	8.00	2.61	1.14	0.17	19.00	0.18
GDP014	GDP014 117.00 118.00 1.00 1.07 0.13 0.04 5.00							
Intersections calculated on a Zn cut-off of 1% with some narrow intervals of sub 1% Zn included.								
Not all holes were assayed for silver and lead.								
Hole GDP014 contains 5m @ 8.45% Zn from 73m to 78m using a 4% Zinc cut-off.								
Hole GDDH01 contains 2.08m @ 5.6% Zn from 226.92 to 229.00m using a 4% Zinc cut-off.								

 Table 1. Old Galah Dam Prospect drill hole intersections above 1% Zn from historic drilling

## 3D IP modelling

Superior has also undertaken 3D modelling of historic IP survey data over the Galah Dam Prospect and surrounding area. This work was completed by Geophysical and Resource Services Pty Ltd using the UBC 3D software. The modelling produced 3D block models for both chargeability and conductivity. This report outlines the results of the 3D modelling work and draws attention to high-order chargeability anomalies within the alteration zone to the north of the Old Galah Dam Prospect which have not been drilled.

Chargeability is a measure related to the amount of charge that the ground can hold. This can provide an estimate of the amount of chargeable minerals, including sulphides and particularly disseminated sulphides, in the ground. Conductivity provides a measure of the conductance of the ground to electrical current which can provide an estimate of the amount of conductive minerals, including massive and semi-massive sulphides, in the ground. The principal zinc mineral that exists at Galah Dam is sphalerite (ZnS). Sphalerite is generally considered only a



weakly chargeable and weakly conducting mineral. Using chargeability and conductivity modelling to locate new areas of zinc-gold mineralisation at Galah Dam relies on being able to detect chargeability and conductivity anomalies from associated sulphides, such as pyrite, chalcopyrite and pyrrhotite, which could be expected to occur associated with sphalerite mineralisation. We note that minerals other than sulphides can cause chargeability and conductivity anomalies in IP survey data.

The 3D modelling work has been completed using a local grid (IPGrid) which has a local grid north of 45° MGA. Local grid north is approximately parallel to the axis of the fold in the alteration zone. In the discussion that follows, all directions are relative to local grid north unless otherwise noted.

The chargeability model shows a broad low-level chargeability anomaly associated with the alteration zone to the north of the Old Galah Dam Prospect. This might be expected given that the alteration zone contains disseminated pyrite. However, within this broad low-level anomaly, high-order chargeability anomalies have been outlined in three areas within the alteration zone. These high-order anomalies lie below a topographic high which reflects the resistance of the strong alteration in this area to weathering and erosion. A fourth anomaly lies outside of the alteration zone and to the west of the other anomalies (Figure 3). None of these anomalies have previously been drilled.

The conductivity model shows some areas of surface conductivity associated with conductive overburden, particularly on the eastern side of the Galah Dam area. This is to be expected in areas with thick clayey soil and alluvial cover. However, the conductivity model also shows moderate-order bedrock anomalies within the alteration zone indicating the possibility of sufficient interconnected sulphides in these areas to produce a conductive response.

Four cross-sections and one long-section through the models are shown in Figures 4 to 8 to indicate the positions and intensity of the newly modelled anomalies and their relationship to the fold in the alteration zone and to the known mineralisation at the Old Galah Dam Prospect.

Cross-Section 96050N (Figure 4) shows the results from the modelling in the area of previous drilling at the Old Galah Dam Prospect. This section is included so that the nature of the chargeability and conductivity anomalies associated with the known drilled mineralisation is apparent. A low-level chargeability anomaly is associated with the known mineralisation. The mineralisation does not show a conductivity anomaly at depth probably indicating the absence of interconnected sulphide mineralisation in this area (shallow conductivity anomalies on this section are interpreted to reflect conductive overburden as previously mentioned).

## Anomaly 1

Cross-Section 96750N (Figure 5) is a section through the highest-order chargeability anomaly (Anomaly 1) from the modelling. It lies 700m north of Cross-Section 96050N. This high-order anomaly lies at shallow depth below the eastern limb of the fold in the alteration zone. A 'tail' to this anomaly extends easterly and upwards to the surface close to the eastern boundary of the alteration zone. Scattered gossan float occurs in this area. There is only low-level direct support for this anomaly from the conductivity modelling. However, a conductivity anomaly occurs at depth and further to the north on the eastern limb of the fold. Drilling of Anomaly 1 is planned, subject to field inspection.

## Anomaly 2

Cross-Section 96950N (Figure 6) is through the most prospective chargeability anomaly (Anomaly 2). It lies to the northwest of Anomaly 1. This is a high-order chargeability anomaly which occurs within the fold axis. There is good support for this anomaly from the conductivity modelling which is broadly coincident with the chargeability anomaly. Because of the support from the conductivity modelling and its location within the fold axis, this is the highest ranked chargeability anomaly from the modelling work (this anomaly is also shown in a west-looking long-



section along the fold axis in Figure 8). Anomaly 2 is considered to be the highest priority target and Superior will be drilled once access is obtained.

### Anomaly 3

Cross-Section 97070N (Figure 7) is through a chargeability anomaly (Anomaly 3) to the northwest of Anomaly 2 and located within the alteration zone below the western limb of the fold. This anomaly which dips to the east and connects with Anomaly 2 has no support from the conductivity model although a conductivity anomaly occurs further to the north under the western limb of the fold. Drilling of Anomaly 3 is planned, subject to field inspection.

#### Anomaly 4

A further chargeability anomaly (Anomaly 4) occurs to the west of anomalies 1, 2 and 3 and west of the alteration zone. A field inspection is needed to further assess this anomaly.

#### Additional diagrams

Fold-Axis Long-Section (Figure 8) is drawn along the fold axis looking westerly. It shows the zinc mineralisation from the historical drilling at the Old Galah Dam Prospect and extends to the north through Anomaly 2. Fold axes are considered prime locations for massive sulphide mineralisation in VMS systems within deformed rocks since sulphides are often considered to remobilise into low pressure areas along fold axes.

Images of the Sliding Tau (late channel decay rates) derived from the VTEM survey over the Galah Dam area (Figure 9) also give support to chargeability anomalies 1 and 2 and to the area further to the north along the eastern limb of the fold with a moderate level anomaly along the eastern side of the alteration zone. In this area, no conductive overburden is present and a bedrock source is likely to be present to explain this anomaly.

The 3D modelling work has substantially raised the status of the area to the north of the old Galah Dam Prospect.

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The information in this report, insofar as it relates to Exploration Results is based on information compiled by Mr Ken Harvey, who is a non-executive Director of Superior Resources Limited and a member of the Australian Institute of Geoscientists. Mr Harvey has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which 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'. Mr Harvey consents to the inclusion in the report of the matters based on the information in the form and context in which it appears.

Certain statements made in this report may contain or comprise certain forward-looking statements. Although Superior Resources Limited believes that any estimates and expectations reflected in such forward-looking statements are reasonable, no assurance can be given that such expectations will prove to have been correct. Accordingly, results and estimations could differ materially from those set out in the forward-looking statements as a result of, among other factors, changes in the economic and market conditions, success of business and operating initiatives and changes in the regulatory environment. Superior undertakes no obligation to update publicly or release any revisions of any forward-looking statements to reflect events or circumstances after the date of this report or to reflect the occurrence of unanticipated events.



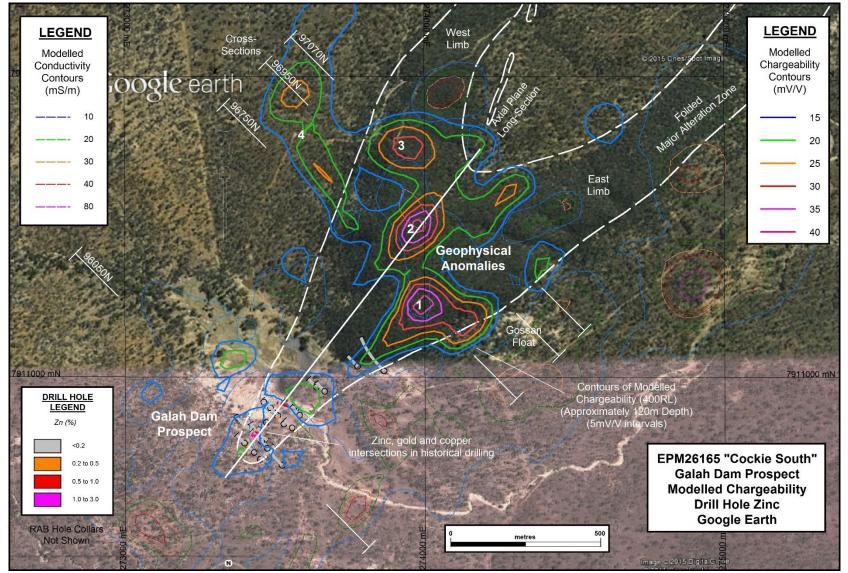


Figure 3. Galah Dam – Map in MGA Zone 55 projection showing a Google Earth image, the interpreted folded major alteration zone, historical drill hole zinc intersections at the Old Galah Dam Prospect and contours of the modelled chargeability and conductivity anomalies at 400RL (approximately 110-150m below surface). The locations of cross sections and a long section shown in the following figures are also shown.



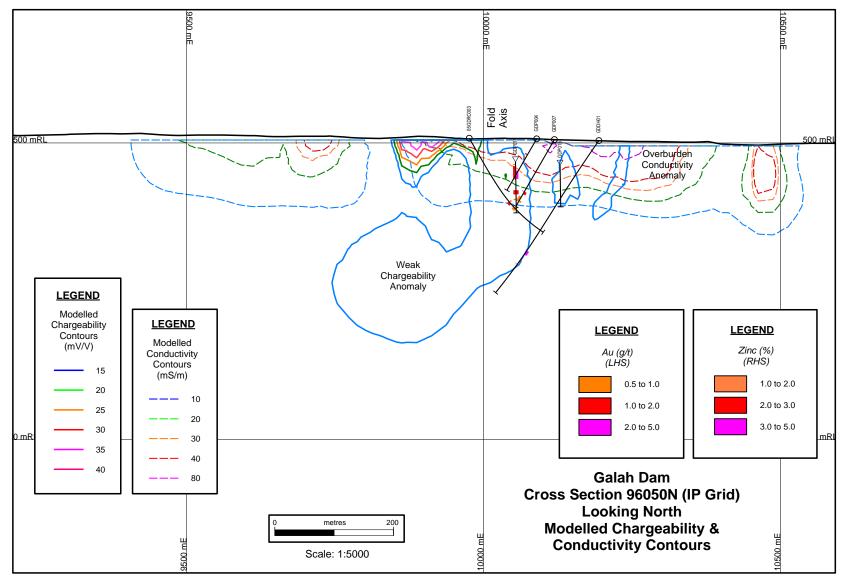


Figure 4. Galah Dam – Cross-section 96050N showing some of the historical drill hole zinc and gold intersections at the Old Galah Dam Prospect and contours of the modelled chargeability and conductivity. A weak chargeability anomaly is associated with the known mineralisation in the drill holes. The near-surface conductivity anomaly is interpreted to reflect conductive overburden rather than sulphide mineralisation.



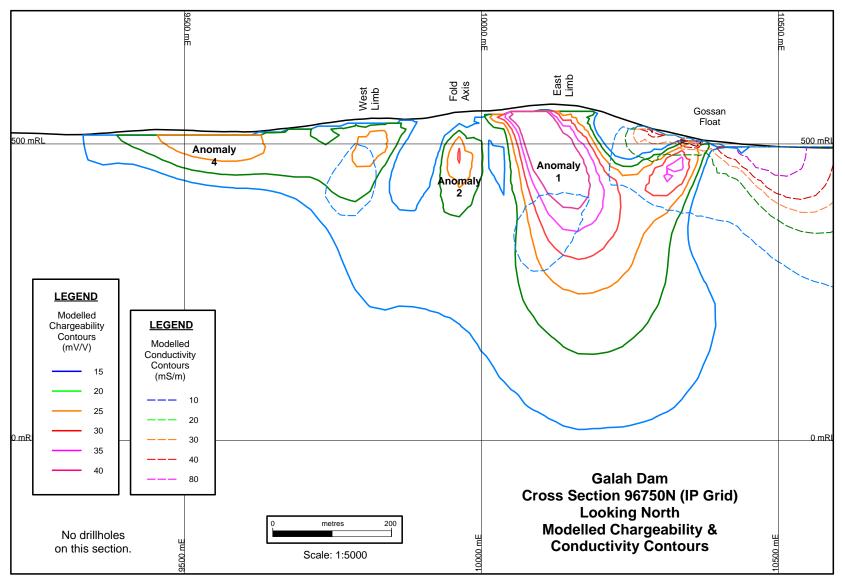


Figure 5. Galah Dam – Cross-section 96750N through the alteration zone north of the Old Galah Dam Prospect showing contours of the modelled chargeability and conductivity. The high-order chargeability anomaly (Anomaly 1) lies under the eastern limb of the fold in the alteration zone and under a topographic high. It is a high-priority drilling target subject to field assessment. Anomalies 2 and 4 are also apparent on this section.



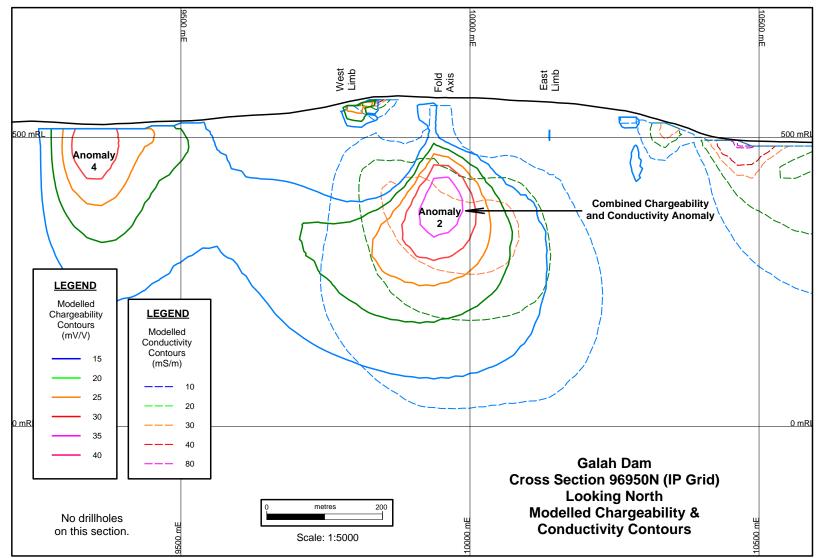


Figure 6. Galah Dam – Cross-section 96950N through the alteration zone north of the Galah Dam Prospect showing contours of the modelled chargeability and conductivity. The combined high-order chargeability and moderate-order conductivity anomaly (Anomaly 2) lie within the axis of the fold in the alteration zone and under a topographic high. It is a high-priority drilling target. Anomaly 4 to the west of the alteration zone is also apparent on this section.



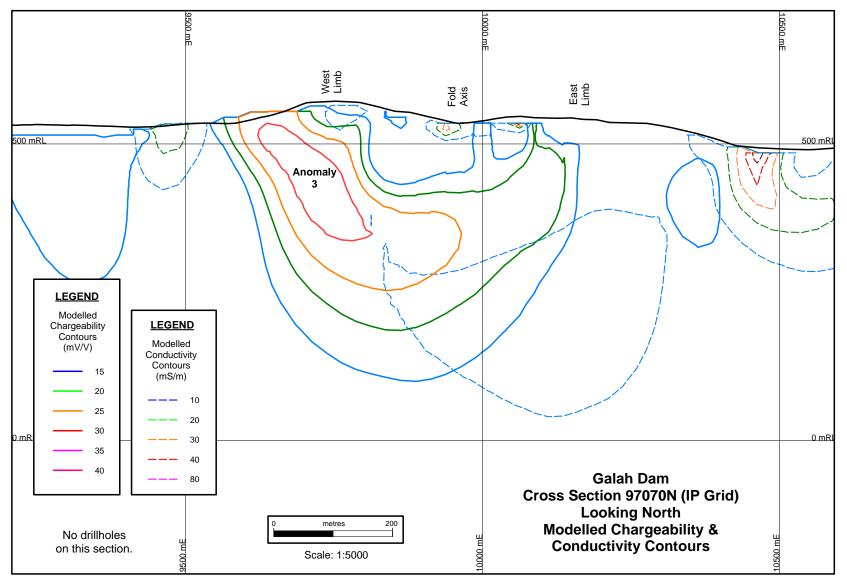


Figure 7. Galah Dam – Cross-section 97070N through the alteration zone north of the Galah Dam Prospect showing contours of the modelled chargeability and conductivity. The moderate-order chargeability anomaly (Anomaly 3) lies within the west limb of the fold in the alteration zone and under a topographic high. It is a significant anomaly but a lower-priority drilling target than Anomalies 1 and 2.



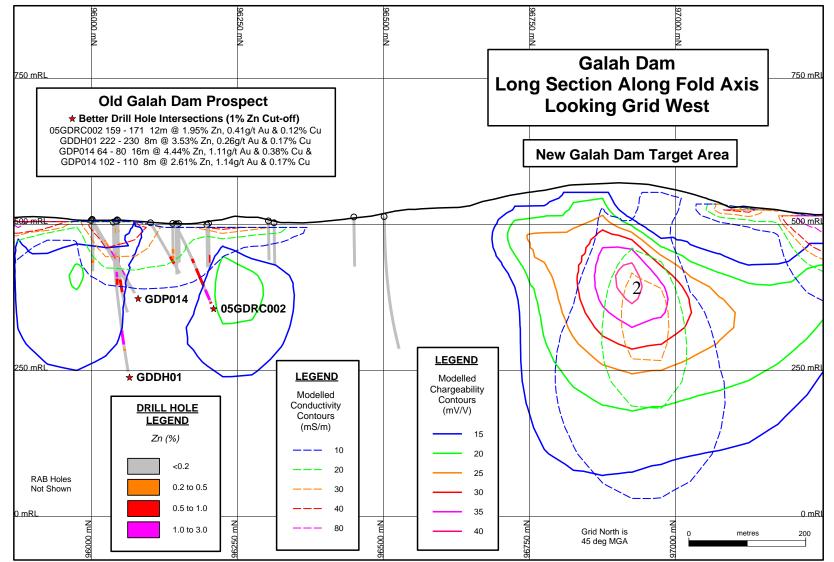


Figure 8. Galah Dam – Long-section along the axis of the fold in the alteration zone extending from the Old Galah Dam Prospect to the new target area showing contours of the modelled chargeability and conductivity and the zinc intersections in historical drill holes at the Old Galah Dam Prospect. The combined chargeability and conductivity anomaly (Anomaly 2) is a high-priority drilling target.



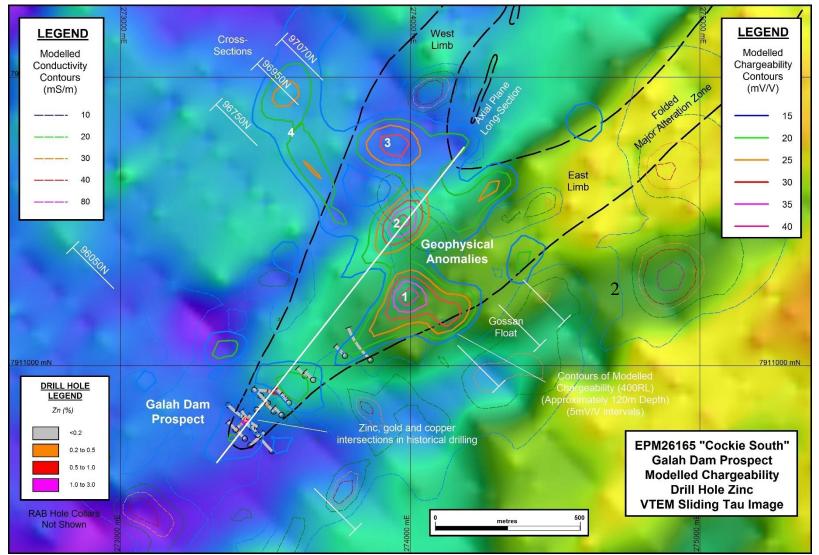


Figure 9. Galah Dam – Map in MGA Zone 55 projection showing a VTEM Sliding Tau image, the interpreted folded major alteration zone, historical drill hole zinc intersections at the Old Galah Dam Prospect and contours of the modelled chargeability and conductivity at 400RL (approximately 120m below surface). The VTEM image suggests a conductive bedrock zone beneath the eastern limb of the fold. The other anomalous area in the lower right of the map is interpreted to relate to thick conductive overburden.



## Appendix 1: JORC Code, 2012 Edition – Table 1

#### Section 1 Sampling Techniques and Data

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

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul> <li>Nature and quality of sampling (e.g. cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc.). These examples should not be taken as limiting the broad meaning of sampling.</li> <li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li> <li>Aspects of the determination of mineralisation that are Material to the Public Report.</li> <li>In cases where 'industry standard' work has been done this would be relatively simple (e.g. 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (e.g. submarine nodules) may warrant disclosure of detailed information.</li> </ul>	<ul> <li>This report relies on data contained in reports submitted to the Queensland Department of Natural Resources and Mines as part of the Company Report System attaching to the grant of Exploration Permits.</li> <li>The sampling techniques, where reported, used standard industry approaches. These include: 1. splitting off a sample of material delivered to the top of the hole during RC drilling to produce a sample for assay accompanied by geological logging of the sample. 2. Halving of drill core from diamond drilling to produce an assay sample accompanied by geological logging of the core.</li> <li>Assaying of samples was completed by commercial laboratory methods that were appropriate at the time the samples were collected. Whilst it is not possible to determine the reliability of historical assay results, no issues arose during compilation and interpretation of the results that would suggest that the assay results were not reasonable.</li> </ul>
Drilling techniques	<ul> <li>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.).</li> </ul>	<ul> <li>Historical Reverse Circulation (RC) and Diamond Drilling (DD) are the only drill types relied on in this report.</li> </ul>
Drill sample recovery	<ul> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> <li>Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> <li>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.</li> </ul>	<ul> <li>Recoveries for RC drill holes were not recorded.</li> <li>Recoveries for diamond drill core samples were not usually recorded for holes drilled.</li> <li>No relationship is evident between sample recovery and grade.</li> </ul>
Logging	<ul> <li>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.</li> <li>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography.</li> <li>The total length and percentage of the relevant intersections logged.</li> </ul>	<ul> <li>Geological logging of most of the drill holes is available in the Company Report System. No geotechnical logs have been reported and it is assumed that these were not done. Diamond drill hole logs usually include some structural data.</li> <li>The logging is generally of a qualitative nature. No core or chip photography is available in the reports.</li> <li>For the logs available logging of all material has been completed.</li> </ul>
Sub-sampling techniques	<ul> <li>If core, whether cut or sawn and whether quarter, half or all core taken.</li> <li>If non-core, whether riffled, tube sampled, rotary split, etc. and whether</li> </ul>	As reported above, it is reported that diamond drill core has been halved as is standard practice for most explorers.



Criteria	JORC Code explanation	Commentary
and sample preparation	<ul> <li>sampled wet or dry.</li> <li>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> <li>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</li> <li>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.</li> <li>Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>	Details of the approach taken for sampling of RC drill holes are not available.
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.	<ul> <li>As reported above, assaying of samples was completed by commercial laboratory methods that were appropriate at the time the samples were collected.</li> <li>Assay data submitted with the reports include some duplicate assaying. It is unknown in detail what quality control procedures were adopted.</li> </ul>
Verification of sampling and assaying	<ul> <li>The verification of significant intersections by either independent or alternative company personnel.</li> <li>The use of twinned holes.</li> <li>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</li> <li>Discuss any adjustment to assay data.</li> </ul>	<ul> <li>No twinned holes have been drilled by Superior at this time as the area has only recently been granted.</li> <li>It is evident that most of the historical drill hole data was captured on paper and stored on paper. The compilation of that data in digital form has been completed by the competent person with plotting of the data on both plans and sections in digital form.</li> <li>No adjustments have been made to historical sample assay data as there was no apparent reason for such adjustments.</li> </ul>
Location of data points	<ul> <li>Accuracy and quality of surveys used to locate drill holes (collar and downhole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.</li> <li>Specification of the grid system used.</li> <li>Quality and adequacy of topographic control.</li> </ul>	<ul> <li>Homestake Australia controlled exploration of the Galah Dam area using a local grid (GD_Grid). The latest IP survey work was controlled using a similar grid but with different coordinates (IP_Grid). Data has been compiled using the appropriate local grid coordinates and grid translations have been used to convert from one grid to another and to convert coordinates to MGA coordinates where required. In the absence of a suitable RL datum for the area, the SRTM DTM over the area has been used for height control and plotting of sections. As Superior progresses work in the area it is expected that a more formal height datum will be established for the area.</li> <li>The area lies within UTM Zone 55, GDA94 datum.</li> </ul>
Data spacing and distribution	<ul> <li>Data spacing for reporting of Exploration Results.</li> <li>Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.</li> </ul>	<ul> <li>Drill hole spacing is variable for the Galah Dam Prospect area but generally provides for the plotting of sections at 50m spacing in the area drilled.</li> <li>Most intersections reported in this report are composites of smaller sample intervals as is standard practice.</li> </ul>

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Criteria	JORC Code explanation	Commentary
Orientation of data in relation to geological structure	<ul> <li>Whether sample compositing has been applied.</li> <li>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</li> <li>If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.</li> </ul>	• In the Galah Dam Prospect area the drill hole orientations are variable but at this stage appear generally OK for the mineralisation present. Further interpretation of the orientation of mineralized zones might require a different orientation of drill holes in future.
Sample security	The measures taken to ensure sample security.	No samples are apparently available from the historical sampling undertaken.
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	<ul> <li>No audits or reviews of the sampling techniques and data have been undertaken at this time.</li> </ul>

#### Section 2 Reporting of Exploration Results

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

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	<ul> <li>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.</li> <li>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.</li> </ul>	
Exploration done by other parties	<ul> <li>Acknowledgment and appraisal of exploration by other parties.</li> </ul>	<ul> <li>All of the drilling reported in this report has been completed and reported on under the Company Report System applying to granted Exploration Permits for Minerals by the Queensland Department of Natural Resources and Mines However compilation in digital form and interpretation of the results of that work in digital form has been completed by the Competent Person.</li> </ul>
Geology	Deposit type, geological setting and style of mineralisation.	<ul> <li>Mineralisation at Galah Dam has generally been reported to be of the volcanogenic massive sulphide (VMS) type. However, committing to this conclusion is premature without Superior completing it own field work and interpretation of the results of that work. Mapping has been completed by CEC and others and combination of this mapping with interpretation of satellite images has allowed the boundaries of the alteration zone mentioned in the report to be established reasonably.</li> </ul>
Drill hole Information	<ul> <li>A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:</li> </ul>	<ul> <li>Significant zinc (+1% Zn), gold and copper intersections are included in the main body of this report and plots of drill holes are shown generally in a cross- section and a long-section. As these intersections are considered sub-economic</li> </ul>



Criteria	JORC Code explanation	Commentary
	<ul> <li>easting and northing of the drill hole collar</li> <li>elevation or RL (Reduced Level) of the drill hole collar</li> <li>dip and azimuth of the hole</li> <li>down hole length and interception depth</li> <li>hole length.</li> </ul> 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.	and are only relevant to the potential of the modelled geophysical anomalies, which are the main reason for this report in that they indicate the presence of mineralisation in the area, full tabulated data on these holes is not included.
Data aggregation methods	<ul> <li>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated.</li> <li>Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.</li> <li>The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> </ul>	<ul> <li>Exploration results are reported as a length weighted average of all the assays of the whole hole intersections.</li> <li>No top cutting has been applied as there are a limited number of higher-grade assays that influence the calculated intersection grades.</li> <li>No metal equivalent values are reported.</li> </ul>
Relationship between mineralisation widths and intercept lengths	<ul> <li>These relationships are particularly important in the reporting of Exploration Results.</li> <li>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</li> <li>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').</li> </ul>	• At Galah Dam, no 'true widths' are reported as this depends on a long and comprehensive process of interpreting the orientation and nature of the mineralisation intersected. This will probably take quite some time to complete properly. Therefore, the information is not available to accompany this brief report that principally reports geophysical anomalies that are considered priority drill hole targets.
Diagrams	<ul> <li>Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.</li> </ul>	Included.
Balanced reporting	<ul> <li>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.</li> </ul>	<ul> <li>Reporting of all reverse circulation and diamond drill holes with intersections above 1% zinc has been included in a table within the report. Possibly less reliable RAB holes have not been included.</li> </ul>
Other substantive exploration data	<ul> <li>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.</li> </ul>	<ul> <li>The competent person has considerable experience in the area and first identified the large alteration zone at Galah Dam (and recognized its potential) following discovery of the Balcooma deposit in the late 1970s.</li> </ul>



Criteria	JORC Code explanation	Commentary
Further work	<ul> <li>The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).</li> <li>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</li> </ul>	• Proposed further work includes field work on the modelled geophysical anomalies to determine their potential for mineralisation and, where appropriate, to plan drill holes to test these anomalies. This work will be carried out once access requirements to the area have been finalized and the weather allows.