

#### ASX ANNOUNCMENT

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**ASX:CUL** 

8 March 2021

# Auger sampling outlines Gold Target areas at Barlee Project

**BARLEE PROJECT** - ELs 77/2606, 57/1135, and ELA 77/2688 (Cullen 100%)

Cullen Resources Limited ("Cullen" or "the Company") has received the assays for 579 auger samples collected on a 400 x 100m grid over a section of N - S trending stratigraphy within E2606. This ~7 x 4km target area has been interpreted from air magnetics data to include underexplored shear zones and numerous elongate and/or folded sections of greenstone in contact with granites (Figs.1 and 2), which Cullen considers has potential to host quartz gold lodes of the Penny-type.

This is the first systematic field test within the project area, that extends from 10 - 55 km SSE of the Penny Gold (previously "Penny West") deposit and the Youanmi greenstone belt towards the NW tip of the Marda - Diemals greenstone belt (Fig.1).

# **Highlights**

- ❖ Cullen considers these first-pass auger sampling results to be highly encouraging, with three key target areas outlined for further investigation (Areas 1-3, Figs.3 -4)
- ❖ Cullen is currently negotiating a heritage agreement to allow for access development and required clearances for further exploration which would likely include field mapping, follow-up sampling and first pass air core drilling.

**Results** Gridded images of all geochemical data, are shown in Fig.5.

- <u>Target Area 1</u>: Gold values of **2-10ppb** form a coherent zone of interest overlying interpreted greenstone and coincident with an anomaly of **Ag** (to **110ppb**) and elevated pathfinder elements As, Bi, Mo, Pb, and Te;
- <u>Target Area 2</u>: Elevated levels of As, Bi, Mo, Pb, and Te over ~2.5km in strike length, overly a zone of greenstones interpreted from air magnetics images;
- <u>Target Area 3</u>: A single, notable value of **430ppb Ag** along the southern boundary of the survey (Ag values are generally below detection, <10ppb), with a gold assay of **11ppb** nearby close to western granite-greenstone contact;

- The distribution of Cu, Co, Zn and Ni values is similar and interpreted to reflect the trend of greenstones, but elevated pathfinder levels overlie only portions of these trends;
- Galena is a characteristic sulphide associated with the Penny high-grade gold zone, hence a focus on the Pb assay distribution from this auger program; and,
- The highest nickel and copper values overlie the most magnetic portions of interpreted greenstones and suggest ultramafics may occur locally.

# **Conclusions**

The coherent anomaly of Au with Ag which is coincident with As, Bi, Au, Mo, Pb, and Te, is interpreted by Cullen to represent an overprint of felsic intrusives and/or hydrothermal alteration on greenstones (Target Area 1)

The second As, Bi, Au, Mo, Pb, and Te zone to the south-east, ~2.5 km in strike length, overlies greenstones cut by a major E-W fault, as interpreted from air magnetics images (Target Area 2)

The western Ag-Au anomaly (Target Area 3) is open to the south and may be partially obscured to the north due to the presence of a channel where auger sampling to ~1m depth may not have been effective.

In Cullen's opinion, these compiled geochemical, geophysical and regolith data have identified key target areas with gold lode potential for further investigation.

## **Forward Plans**

Cullen is currently negotiating a heritage agreement to allow for the development of access into the area for further exploration. In the first instance, the Company plans to seek clearance for air core drilling traverses as planned along existing fence lines. Such work to be undertaken in conjunction with field mapping and follow-up sampling within the targets areas to prepare for later drill testing.

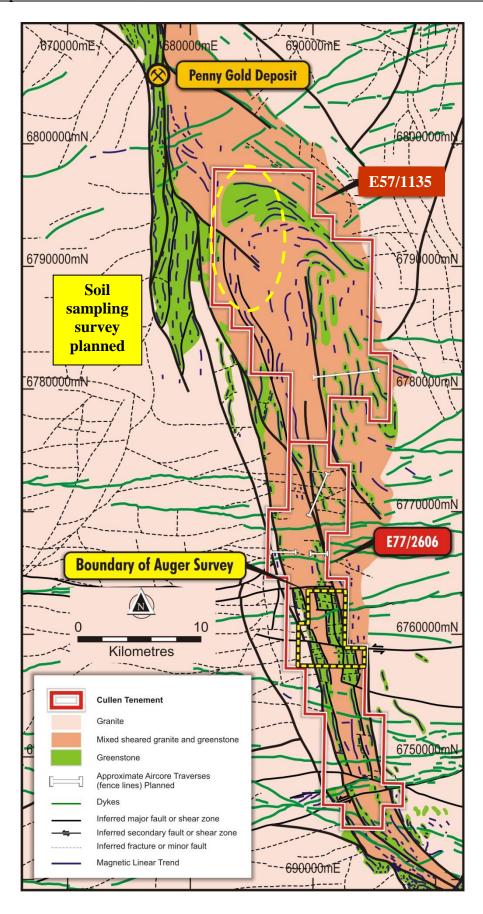


Fig.1. Interpretation of air magnetics data, south east of the Youanmi greenstone belt.

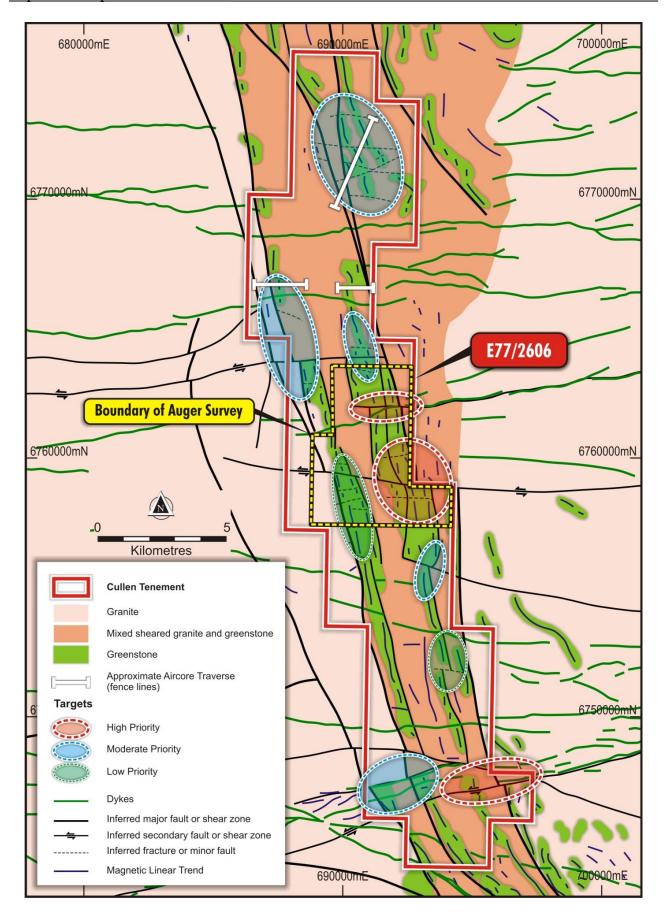


Fig.2. Target areas in E2606 as identified from of air magnetics data and now supported by positive auger sample assays.

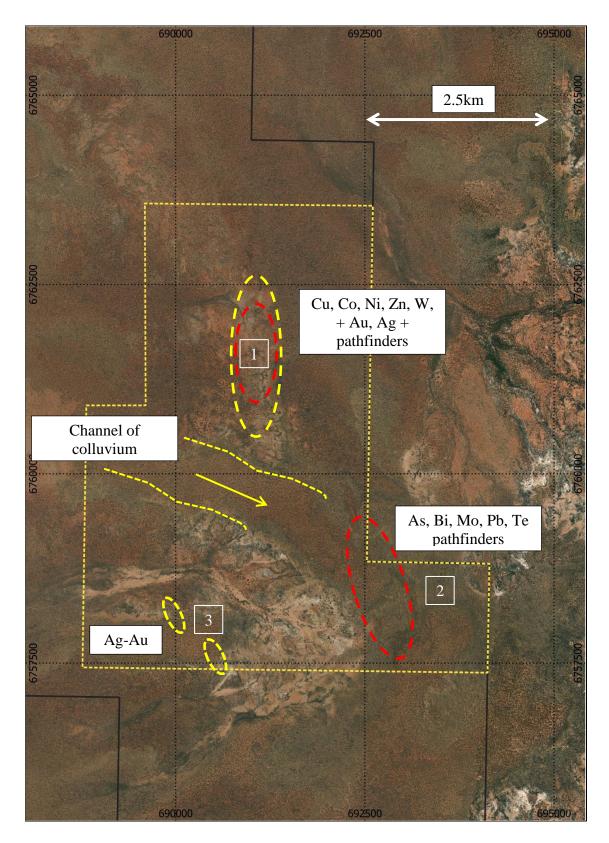


Fig.3. Outlines of zones of interpreted, significant target areas from auger sampling shown on aerial photography for priority follow-up.

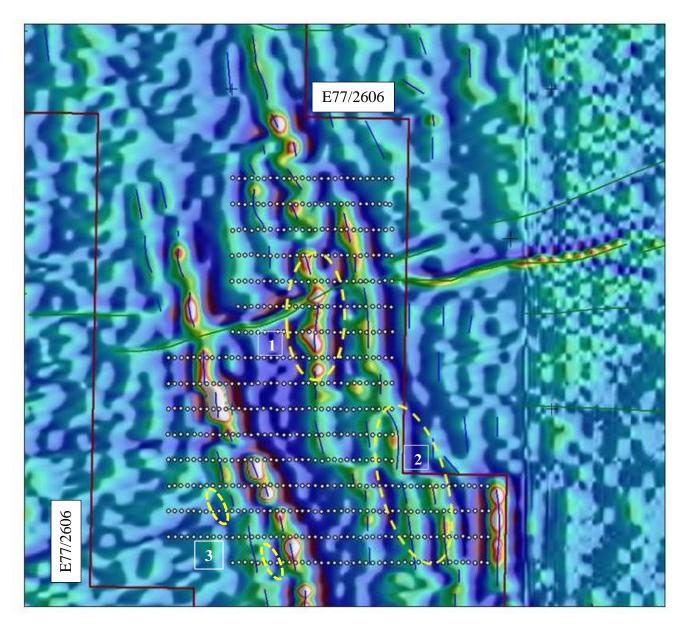
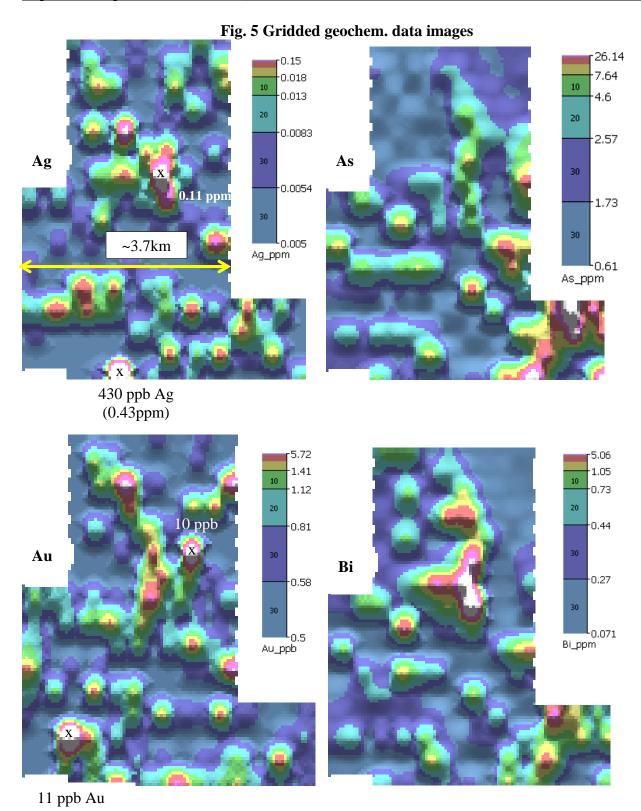
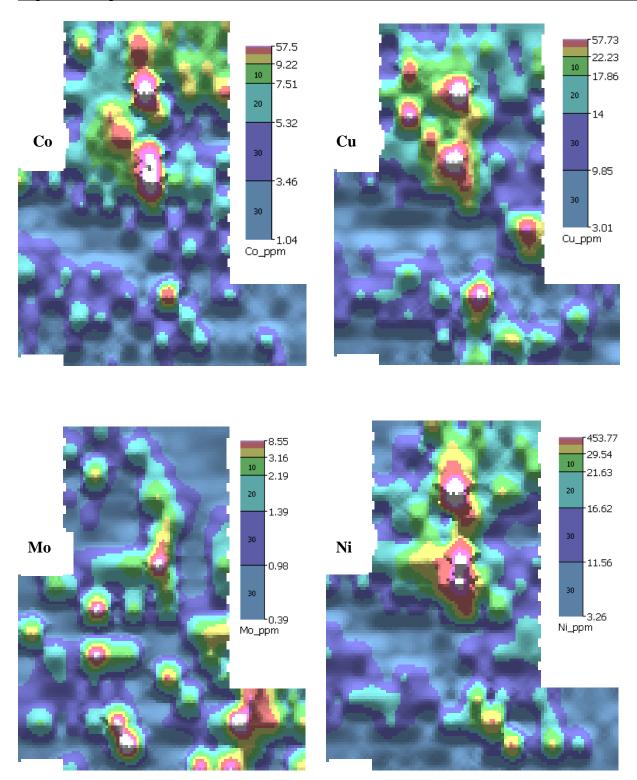
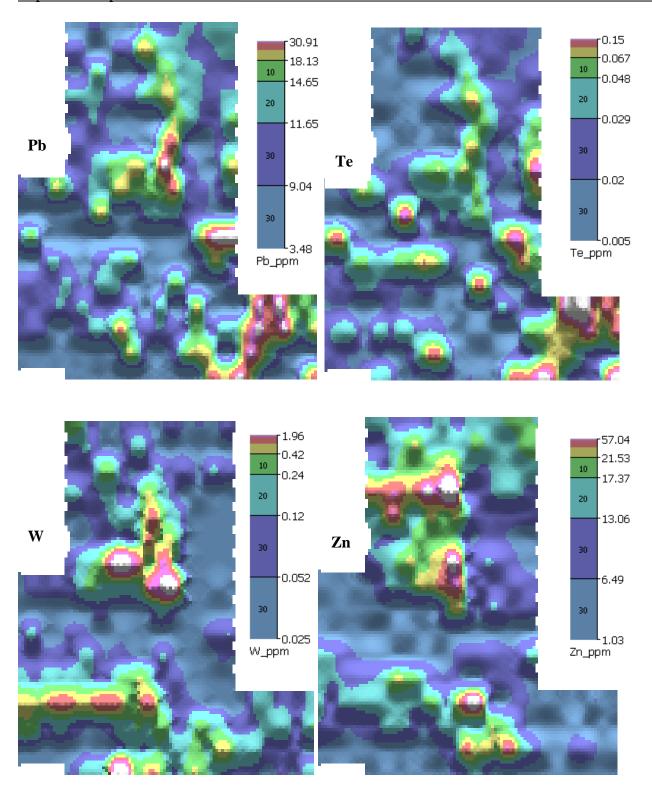


Fig.4. Outlined zones of interpreted, significant target areas on air magnetics image.



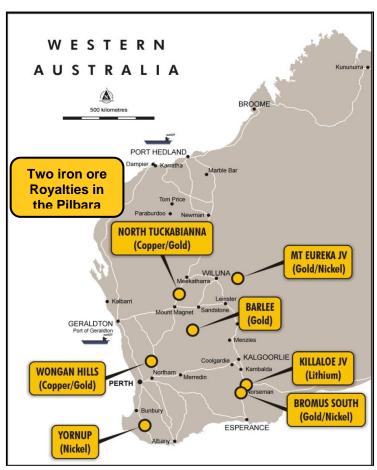




Lab Elements	Ag	As	Au	Bi	Co	Cu	Mo	Ni	Pb	Sb	Te	W	Zn
Unit Codes	ppm	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
LDETECTION	0.01	0.5	1	0.01	0.1	0.5	0.05	0.2	0.2	0.5	0.01	0.05	2
UDETECTION	100	10000	4000	10000	10000	10000	10000	10000	10000	10000	500	10000	10000
BD - Below													
MAX VALUE	0.43	38.6	11	8.35	144.3	101.2	15.27	1123.2	43.2	BD	0.19	5.04	123

Assays by aqua regia digest with ICP-MS finish

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**Project Location Map** 

#### Further Information - 2020 ASX Releases

- 1. 29-1-2020 : Quarterly activities Report
- 2. **07-2-2020** : Exploration Update
- 3. 10-2-2020 : Share Purchase Plan
- 4. 12-2-2020: Investor presentation
- **5.** 03-3-2020 : Key Tenement Granted
- 6. 28-4-2020: Quarterly Report, March 2020
- 7. 19-6-2020: Barlee Update
- **8. 22-6-2020:** Exploration Update
- 9. 15-7-2020: Exploration Update
- 10. 23-7-2020: Quarterly Report, June 2020
- 11. 21-8-2020: Exploration Update
- 12. 29-10-2020: Quarterly Report, September 2020
- 13. 4-12-2020: Investor Presentation
- **14.** 9-12-2020: Exploration Update

### **Further Information - 2021 ASX Releases**

- 1. 28-1-2021: Quarterly Report, December 2020
- **2. 18-2-2021: Exploration Update**
- 3. 2-3-2021: Exploration Update Wongan Hills

## **ATTRIBUTION:** Competent Person Statement

The information in this report that relates to exploration activities is based on information compiled by Dr. Chris Ringrose, Managing Director, Cullen Resources Limited who is a Member of the Australasian Institute of Mining and Metallurgy. Dr. Ringrose is a full-time employee of Cullen Resources Limited. He has sufficient experience which is relevant to the 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 by the 2012 edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Dr. Ringrose consents to the report being issued in the form and context in which it appears. Information in this report may also reflect past exploration results, and Cullen's assessment of exploration completed by past explorers, which has not been updated to comply with the JORC 2012 Code. The Company confirms it is not aware of any new information or data which materially affects the information included in this announcement.

**ABOUT CULLEN:** Cullen is a Perth-based minerals explorer with a multi-commodity portfolio including projects managed through a number of JVs with key partners (Rox, Fortescue and Liontown), and a number of projects in its own right. The Company's strategy is to identify and build targets based on data compilation, field reconnaissance and early-stage exploration, and to pursue further testing of targets itself or farm-out opportunities to larger companies. Projects are sought for most commodities mainly in Australia but with selected consideration of overseas opportunities. Cullen has a **1.5% F.O.B. royalty** up to 15 Mt of iron ore production from the Wyloo project tenements, part of Fortescue's Western Hub/Eliwana project, and will receive \$900,000 cash if and when a decision is made to commence mining on a commercial basis – E47/1649, 1650, ML 47/1488-1490, and ML 08/502. Cullen has a **1% F.O.B. royalty** on any iron ore production from the following tenements – E08/1135, E08/1330, E08/1341, E08/1292, ML08/481, and ML08/482 (former Mt Stuart Iron Ore Joint Venture – Baosteel/Aurizon/Posco/AMCI) and will receive \$1M cash upon any Final Investment Decision. The Catho Well Channel Iron Deposit (CID) has a published in situ Mineral Resources estimate of 161Mt @ 54.40% Fe (ML 08/481) as announced by Cullen to the ASX – 10 March 2015.

### FORWARD - LOOKING STATEMENTS

This document may contain certain forward-looking statements which have not been based solely on historical facts but rather on Cullen's expectations about future events and on a number of assumptions which are subject to significant risks, uncertainties and contingencies many of which are outside the control of Cullen and its directors, officers and advisers. Forward-looking statements include, but are not necessarily limited to, statements concerning Cullen's planned exploration program, strategies and objectives of management, anticipated dates and expected costs or outputs. When used in this document, words such as "could", "plan", "estimate" "expect", "intend", "may", "potential", "should" and similar expressions are forward-looking statements. Due care and attention has been taken in the preparation of this document and although Cullen believes that its expectations reflected in any forward looking statements made in this document are reasonable, no assurance can be given that actual results will be consistent with these forward-looking statements. This document should not be relied upon as providing any recommendation or forecast by Cullen or its directors, officers or advisers. To the fullest extent permitted by law, no liability, however arising, will e accepted by Cullen or its directors, officers or advisers, as a result of any reliance upon any forward looking statement contained in this document.

Authorised for release to the ASX by: Chris Ringrose, Managing Director, Cullen Resources Limited.

# Data description as required by the 2012 JORC Code - Section 1 and Section 2 of Table 1 Auger Sampling – E77/2606

	Section 1 Sampling	g techniques and data			
Criteria	JORC Code explanation	Comments			
Sampling technique	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 XRF instruments, etc.). These examples should not be taken as limiting the broad meaning of sampling.	Sampling was by Toyota-mounted auger drill rig taking samples from 0.5 to 1.5m depth. Drilling was a first pass sampling program targeting areas of interpreted geological and/or geophysical interest for gold mineralisation.  579 samples at 400 x 100m spacing – vertical holes.			
	Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used	The sample positions were located using handheld GPS units with an approximate accuracy of +/- 5 m.			
	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 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.	Notes taken of depth of sample and colour observations.  Samples (~500g) were sent to Perth laboratory Minanalytical for analysis.			
Drilling technique	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.).	Auger blade			
Drill Sample recovery	Method of recording and assessing core and chip sample recoveries and results assessed	Auger sampling filed notes provided in Excel sheet.			
	Measurements taken to maximise sample recovery and ensure representative nature of the samples.	Not Applicable (N/A)			
	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.	N/A			

Logging	Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining and metallurgical studies.	N/A.
	Whether logging is qualitative or quantitative in nature. Core (or costean, channel etc.) photography.	Logging of samples for colour and any reaction to hydrochloric acid (indicating calcrete) was qualitative.
	The total length and percentage of the relevant intersections logged	Each auger hole described for colour and compostion.
Sub- sampling techniques and sample preparation	If core, whether cut or sawn and whether quarter, half or all core taken.	N/A
	If non-core, whether riffles, tube sampled, rotary split, etc. and whether sampled wet or dry.	Samples were collected in geochem bags.
	For all sample types, quality and appropriateness of the sample preparation technique.	All samples to be pulverised to produce a homogenous representative sub-sample for analysis. A grind quality target of 85% passing 75µm is established and is relative to sample size, type and hardness.
		Planned analysis of all drill samples: Gold (Au), Silver (Ag,) Arsenic (As), Bismuth (Bi) Copper (Cu), Cobalt (Co), Molybdenum (Mo), Nickel (Ni), Lead (Pb), Antimony (Sb), Tellurium (Te), Tungsten (W) and Zinc (Zn)) was analyzed by Aqua Regia digest with ICP-MS finish.
	Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.	Duplicates certified reference materials and blanks are inserted by the laboratory and reported in the final assay report. Check analyses to be undertaken by the laboratory.
	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.	Field duplicate samples were taken each 25m and standards and blanks were submitted with Gyro generated samples.
	Whether sample sizes are appropriate to the grain size of the material being sampled.	The sample size is considered appropriate for the purpose, which is reconnaissance only, primarily aimed at establishing presence of any geochemical anomalies.
	The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.	N/A

	T	T
	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.	N/A.
Quality of assay data and laboratory tests	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.	International standards, blanks and duplicates to be inserted by the laboratory.
Verification of sampling and assaying	The verification of significant intersections by either independent or alternative company personnel.	Contractor Gyro Drilling handled sample collection and dispatch to Perth via Kalgoorlie.
	The use of twinned holes  Documentation of primary data, data entry procedures, data verification, data storage (physically and electronic) protocols.	N/A  All primary auger data is recorded manually on log sheets and transferred into digital format.
	Discuss any adjustment to assay data.	
Location of data points	Accuracy and quality of surveys used to locate drill holes (collar and downhole surveys), trenches, mine workings and other locations used in Mineral Resources estimation.	Drill collar survey by handheld GPS. Several measurements (2-3) at different times are averaged; the estimated error is +/-5 m. RL was measured by GPS.
	Specification of the grid system used.	The grid are in UTM grid GDA94, Zone50
	Quality and adequacy of topographic control.	There is currently no topographic control and the RL is GPS (+/-5m).
Data spacing and distribution	Data spacing for reporting of Exploration Results.	The drilling tested interpreted stratigraphy and structures.
	Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Reserve and Ore Re4serve estimation procedure(s) and classifications applied.  Whether sample compositing has been	N/A N/A
	applied.	

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.	The drilling is reconnaissance level and designed to test geophysical and geological targets, to assist in mapping.
	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.	N/A
Sample security	The measures taken to ensure sample security.	All auger samples are handled, transported and delivered to the laboratory contractor Gyro Drilling. All samples were accounted for.
Audits or reviews	The results of and audits or reviews of sampling techniques and data.	No audits or reviews of sampling techniques and data have been conducted to date.
	Section 2 Reporting	g of exploration results
Mineral tenements 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 interest, historical sites, wilderness or national park and environmental settings.	The drill targets are located on E77/2606 owned 100% by Cullen Exploration Pty Ltd (a wholly-owned subsidiary of Cullen Resources Limited). Cullen has completed a review of heritage sites, and found no issues. Particular environmental settings have been considered when planning drilling.
	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.	The tenure is secure and in good standing at the time of writing.
Exploration done by other parties	Acknowledgement and appraisal of exploration by other parties.	There has not been any previous drilling or systematic gold exploration.
Geology	Deposit type, geological settings and style of mineralisation.	The targeted mineralisation is shear-hosted Au mineralisation.
Drill hole information	A summary of all information material for 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 levelelevation above sea level in metres) and the drill hole collar	See included figures for auger sample locations.

	Discoulation of California	
	· Dip and azimuth of the hole	
	· Down hole length and interception depth	N/A
	· Hole length	
	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.	N/A
Data aggregation methods	In reporting Exploration results, weighing 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.	N/A
	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.	N/A
	The assumptions used for any reporting of metal equivalent values should be clearly stated.	N/A
Relationship between mineralisation widths and intercept lengths	These relationships are particularly important in the reporting of Exploration Results.	N/A
	If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.	N/A
	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')	N/A
Diagrams	Appropriate maps and sections (with scales) and tabulations of intercepts would 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.	N/A

Balanced	Where comprehensive reporting of	N/A
	Where comprehensive reporting of	IN/A
reporting	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.	
Other	Other exploration data, if meaningful	N/A – no specific previous historical exploration.
substantive	and material, should be reported	
exploration	including (but not limited to):	
data	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	
7 1	or containing substances.	
Further work	The nature and scale of planned	Further work is planned.
	further work (e.g. tests for lateral	
	extensions or depth extensions or	
	large-scale step-out drilling).	
	Diagrams clearly highlighting the	See included figures.
	areas of possible extensions,	
	including the main geological	
	interpretations and future drilling	
	areas, providing this information is	
	not commercially sensitive.	

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