



ASX Announcement

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ASX:CUL

24 August 2022

Pegmatite rock chip assays, Barlee Project

BARLEE PROJECT, W.A. - targeting Penny - type Gold, prospecting for Lithium-in-Pegmatites (Cullen 100%)

Barlee is a “greenfield” project which extends from 10 - 55 km SSE of the Penny Gold deposit (previously “Penny West”) and the Youanmi greenstone belt, towards the NW tip of the Marda - Diemals greenstone belt. It covers significant strike of underexplored shear zones and numerous elongate and/or folded aeromagnetic anomalies (highs), which are greenstone (including mafics-ultramafics) intercalated within the granite terrane (ASX: CUL; 10-12-2021).

Trainers Rocks – Lithium Potential Identified

A short program of prospecting and rock chip sampling of pegmatites was completed in July prior to postponement due to rain. An initial suite of 17 samples was collected, mainly from the south-east corner of E77/2688 near Trainers Rocks where pegmatites have been mapped by the Geological Survey of Western Australia.

Assay results (Table 1) show elevated to anomalous levels of lithium and some indicator elements (Ta, Cs, Sn and Rb), which have identified a fertile environment for lithium-bearing pegmatites. A maximum value of **768 ppm Li₂O** was recorded, with 6 samples collected in the immediate area averaging 417ppm Li₂O. Moderately anomalous pegmatites were also sampled 6 km to the north on the same trend (see Fig. 1).

Conclusion

Cullen considers these assay results support the potential of the project for lithium in pegmatites given: the small sample suite assayed to date; and, the significant strike extent of granite-greenstone contacts within the project. The characteristic spatial zonation of minerals and elements typical of Lithium - Caesium -Tantalum (LCT)-type pegmatite fields, supports further investigation. A soil sampling program is planned to test alluvial- covered areas around Trainers Rock and also to the west, testing the interpreted granite-greenstone contact and fracture zones.

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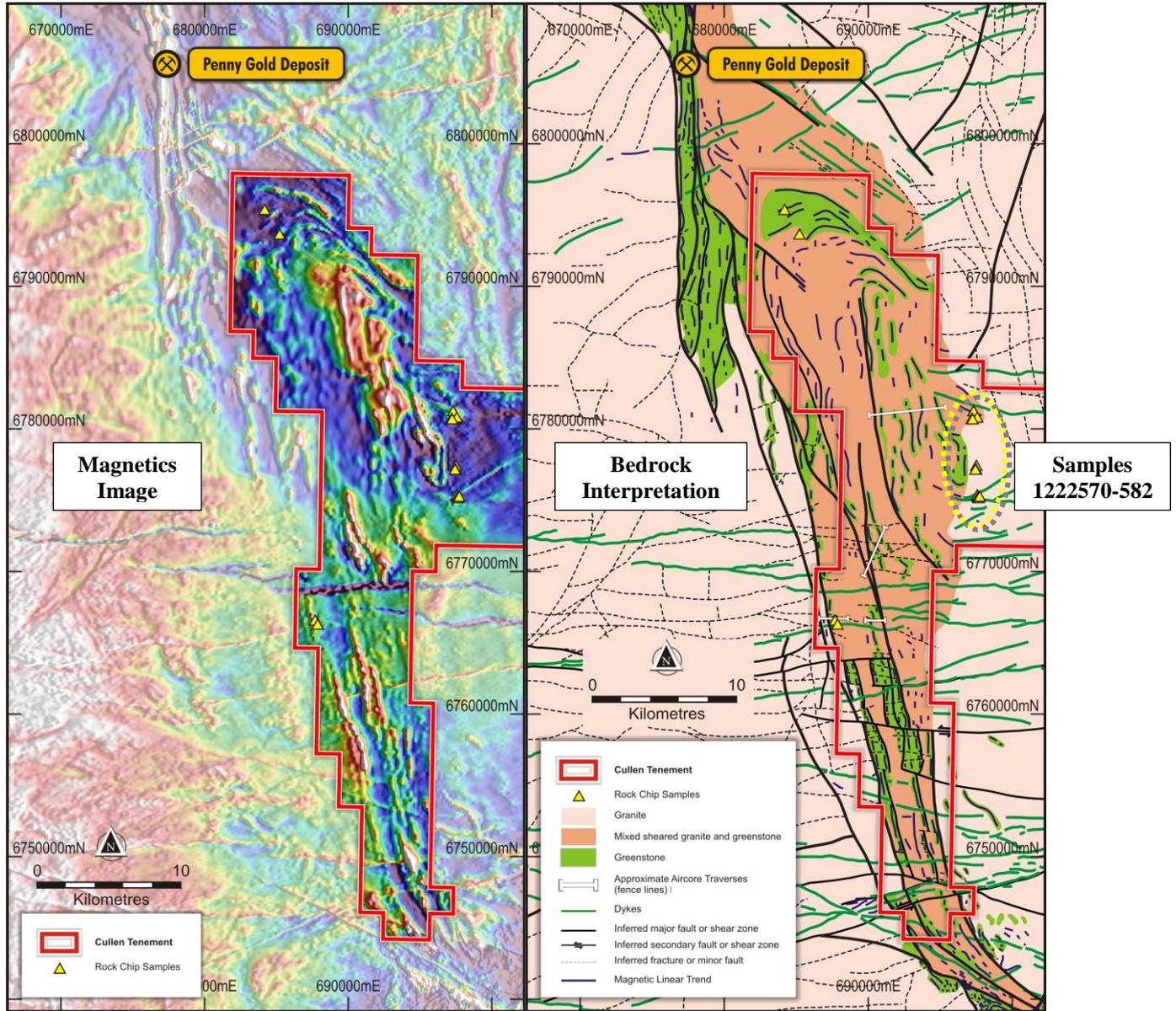


Fig. 1. Location of pegmatites rock chip samples with group of elevated lithium and associated elements highlighted. Note Cullen’s tenure includes new ELA77/2967 just east of samples **1222570-582**.

Table 1. Analyses of rock chip pegmatite samples (ppm), BD= Below detection

Sample	E	N	Be	Ce	Cs2O	Cs	Li2O	Li	Nb2O5	Nb	Rb2O	Rb	Sn	Ta2O5	Ta
1222564	684194	6795710	<1	6.7	0.2	0.21	4.3	2	BD	<10	171	156.7	<2	BD	<0.10
1222565	685235	6793981	<1	2.5	BD	<0.05	19.4	9	BD	<10	2	2	<2	0.2	0.15
1222570	697317	6781595	4	20	1.0	0.92	BD	<1	25.8	18	132	120.3	<2	2.6	2.17
1222571	697315	6781582	<1	1.2	BD	<0.05	10.8	5	BD	<10	20	18.2	<2	BD	<0.10
1222572	697574	6781143	<1	0.7	BD	<0.05	28.0	13	BD	<10	BD	<0.5	<2	0.7	0.6
1222573	697216	6781072	42	29.7	12.5	11.77	402.6	187	71.6	50	959	876.6	50	128.7	105.44
1222574	697509	6777758	5	12.4	5.7	5.38	45.2	21	31.5	22	325	297.2	<2	8.2	6.68
1222575	697493	6777494	4	7.6	10.2	9.62	56.0	26	45.8	32	864	789.4	7	44.3	36.25
1222576	697441	6777487	12	19.8	14.1	13.29	269.1	125	28.6	20	828	757.1	15	23.7	19.39
1222577	697244	6781017	4	20.7	7.8	7.36	34.4	16	BD	<10	367	335.4	<2	9.6	7.87
1222578	697594	6775623	5	14.1	13.0	12.31	387.5	180	63.0	44	807	737.5	10	8.3	6.79
1222579	697592	6775649	3	14.8	9.1	8.61	376.8	175	64.4	45	986	900.9	13	10.5	8.63
1222580	697569	6775690	3	26.1	3.9	3.66	232.5	108	54.4	38	652	595.9	6	6.4	5.22
1222581	697630	6775551	5	17.3	9.8	9.27	768.6	357	77.3	54	945	863.4	18	11.7	9.62
1222582	697662	6775492	2	13.4	3.2	3.01	521.0	242	67.3	47	521	476.5	19	5.2	4.29
1222583	697738	6775586	7	13.8	7.1	6.74	217.5	101	77.3	54	677	619	10	17.8	14.54
1222585	687874	6766611	2	5.1	BD	<0.05	10.8	5	BD	<10	14	12.8	<2	0.3	0.27

Gold Exploration

Further in-fill soil sampling was also completed on a 100 x 50m grid (64 samples) around the previously-reported gold-in-soil spot anomalies (**7 and 15 ppb Au** (background <1ppb)). No extension of these anomalies was located on the previous 400 x 100 m grid. These new soil samples will be analysed following collection of <2 micron Ultrafine fraction, and microwave digestion in Aqua Regia for gold and multi-elements. All assays pending.

WAMEX A 97620

Felderhof, S.; 2013: Lake Barlee West, Final Surrender Report, Orrex Resources Ltd.

WAMEX A 51189

Warne, S..B.; 1997, Barlee Project, Roebuck Resources.

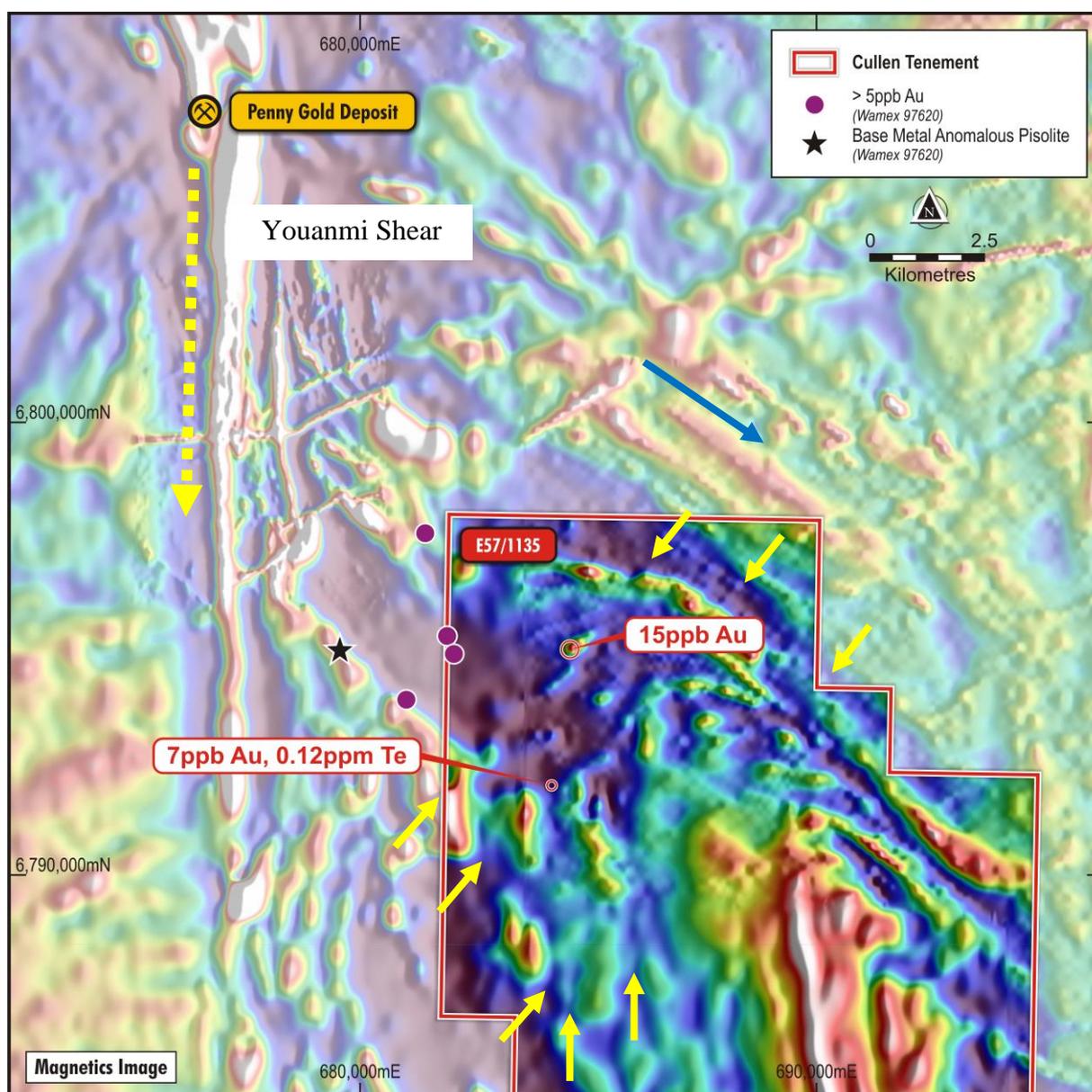


Fig. 2. Singular, previously-reported Au anomalies from soil sampling may be related to NE-SW, NW-SE and/or N-S structures.

Data description as required by the 2012 JORC Code - Section 1 and Section 2 of Table 1**Rock Chip Sampling – Barlee Project**

Section 1 Sampling 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.	17 rock chip samples as 8-12 chips selected from a ~ 5m ² area.
	Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used	The samples 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.	The samples (2-3kg) 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.).	No drilling completed.
Drill Sample recovery	Method of recording and assessing core and chip sample recoveries and results assessed	N/A
	Measurements taken to maximise sample recovery and ensure representative nature of the samples.	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.	N/A
	The total length and percentage of the relevant intersections logged	N/A
Sub-sampling techniques and sample preparation	If core, whether cut or sawn and whether quarter, half or all core taken.	Rock chip samples analyzed by sodium peroxide fusion at Minanalytical Laboratories (method FUSMS25). Adjustments to ppm element values to convert to oxides as follows : (Rb x 1.094); (Cs x1.06); (Nb x1.431); Ta x 1.221); (Li x 2.153)
	If non-core, whether riffles, tube sampled, rotary split, etc. and whether sampled wet or dry.	N/A
	For all sample types, quality and appropriateness of the sample preparation technique.	Rock chip samples by FUSMS – sodium peroxide fusion, nickel crucibles, 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.	No field duplicate samples were taken.
	Whether sample sizes are appropriate to the grain size of the material being sampled.	Considered appropriate for the purpose which is reconnaissance only, primarily aimed at establishing pegmatite geochemistry.
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.	Fusion method of considered appropriate for lithium and its pathfinders
	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.
	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.	Rock chip sampling by experienced contractors and a geologist. No verification of sampling and assaying
	The use of twinned holes	N/A

	Documentation of primary data, data entry procedures, data verification, data storage (physically and electronic) protocols.	N/A
	Discuss any adjustment to assay data.	N/A
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 Resources estimation.	N/A
	Specification of the grid system used.	The grids are in UTM grid GDA94, Zone50
	Quality and adequacy of topographic control.	N/A
Data spacing and distribution	Data spacing for reporting of Exploration Results.	Rock chip sampling along outcrop lines, no fixed sample spacing.
	Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Reserve and Ore Reserve estimation procedure(s) and classifications applied.	N/A.
	Whether sample compositing has been applied.	N/A
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.	N/A
	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.	N/A
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 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.	Barlee , E77/2688 – Cullen 100%
	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 been very limited historical exploration in this project area – key references listed

Geology	Deposit type, geological settings and style of mineralisation.	N/A
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:	N/A
	· <i>Easting and northing of the drill hole collar</i>	N/A
	· <i>Elevation or RL (Reduced level-elevation above sea level in metres) and the drill hole collar</i>	N/A
	· <i>Dip and azimuth of the hole</i>	N/A
	· <i>Down hole length and interception depth</i>	N/A
	· <i>Hole length</i>	N/A
	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.	See included figures.
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.	N/A
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 containing substances.	N/A – reported previously and/or referenced.
Further work	The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).	Further work is planned – likely to include follow-up sampling and air core drilling.
	Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, providing this information is not commercially sensitive.	See included figures.

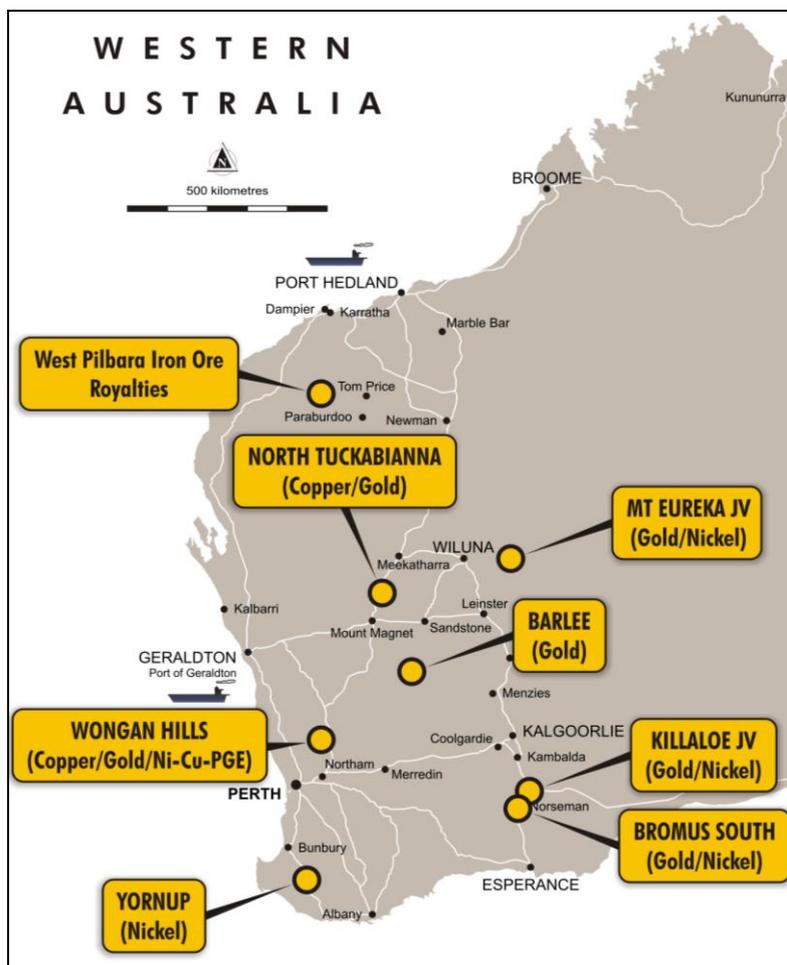
ATTRIBUTION: Competent Person Statement

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.

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 be accepted by Cullen or its directors, officers or advisers, as a result of any reliance upon any forward looking statement contained in this document.

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, Lachlan Star and Capella), 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 – from former tenure including 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 former Mt Stuart Iron Ore Joint Venture (Baosteel/MinRes/Posco/AMCI) tenements – E08/1135, E08/1330, E08/1341, E08/1292, ML08/481, and ML08/482 (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.



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