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Diamond Drilling intersects "feeder" structure with massive copper-goldmagnetite mineralisation at the Burns Prospect, Hogan's Project, Western Australia

- Diamond drill hole confirms copper and gold associated with magnetite alteration
- Brecciated "feeder" structure intersected containing massive magnetite-copper-gold mineralisation
- Significant assay results include:
- 38.5 metres @ 0.5 g/t Au & 0.2 % Cu from 184.5 metres
- 55.95 metres @ 0.5 g/t Au & 0.2 % Cu from 229.85 metres inc. 0.9 metres @ 4.5 g/t Au & 2.6 % Cu from 256.4 metres inc. 10.35 metres @ 1.2 g/t Au & 0.6 % Cu from 273.3 metres
- Down hole electromagnetic survey defines six discrete conductors associated with copper, gold, and magnetite
- Potential for a large mineralised system
- Future exploration to focus on less magnetic and potentially more copper-rich areas of "feeder" structure



Photo 1. OBUDD001 (257m): Massive magnetite-copper-gold mineralisation





The Directors of Octagonal Resources Limited (ASX: ORS) ("**Octagonal**" or "**Company**") are pleased to announce the results from the first diamond drill hole completed at the Burns Prospect, Hogan's Project, in Western Australia.

Diamond hole OBUDD001 was drilled to 401.5 metres depth to test for the source of a strong magnetic anomaly, defined by 3D inversion modelling of ground magnetic data, that may be associated with copper and gold mineralisation.

The results of this drill hole have substantially improved the geological understanding of the Burns Prospect and intersected a 3.6 metre wide magnetite-chlorite breccia zone that is thought to be the main "feeder" structure or primary conduit of mineralising fluids at the Burns Prospect. This breccia zone also contains massive magnetite-copper-gold mineralisation at the footwall contact (Photo 1), with 0.9 metres grading 4.5 g/t Au and 2.6 % Cu.

The breccia zone is strongly magnetic and surrounded by a 90 metre thick zone of magnetic mafic and intermediate rocks that explain the targeted magnetic anomaly.

Other zones of mineralisation intersected in the drill hole (also associated with magnetite alteration) include 38.5 metres grading 0.5 g/t Au and 0.2 % Cu from 184.5 metres depth and 55.95 metres grading 0.5 g/t Au and 0.2 % Cu from 229.85 metres depth, including 10.35 metres grading 1.2 g/t Au and 0.6 % Cu from 273.3 metres depth.

A down hole electromagnetic survey completed in the drill hole identified six discrete moderate conductive zones associated with observed copper and magnetite mineralisation.

Future exploration at the Burns Prospect will focus to targeting less magnetic and dilational areas of the "feeder" structure that may contain broader zones of higher grade copper and gold.

Additional information relating to Octagonal and its various mining and exploration projects can be found on the Company's website: <u>www.octagonalresources.com.au</u>

For further enquiries, please contact:

Anthony Gray (Managing Director) +61 3 9697 9088.



Photo 2. Drilling diamond hole OBUDD001





Burns Prospect

The Burns Prospect is characterised by a discrete granite intrusive with associated low magnetic and gravity signatures that intrudes a thrust package of mafic, intermediate and meta-sedimentary rocks. The granite has caused doming of the greenstone sequence, creation of dilational jogs associated with northwest trending structures, and localised lithological and structural complexity that forms ideal sites for the deposition of gold. Evidence of intense fluid flow is further supported by a high-magnetic alteration halo that surrounds the granite.

In May 2011 Octagonal discovered significant gold and copper in regolith (weathered Archaean rock) anomalism at the Burns Prospect, with aircore drilling used to define a one square kilometre area of gold anomalism and a two kilometre long copper anomaly using a 40 metre by 160 metre spaced grid (Figure 2). The gold anomalism is unconstrained by drilling where it trends beneath salt lake cover to the north and east.

During 2012 Octagonal completed 33 RC holes, on four 40 metre spaced traverses in the southeast corner of the target area. This drilling intersected broad zones of gold and copper associated with magnetite-biotite alteration and hosted in fractured high-magnesian basalt and intermediate intrusive rocks.

Significant assay results included:

- 9 metres @ 1.5 g/t Au & 1.0 % Cu from 58 metres in OBURC002 inc. 2 metres @ 1.5 g/t Au & 4.2 % Cu from 65 metres
- 6 metres @ 4.9 g/t Au & 0.4 % Cu from 23 metres in OBURC003
- 12 metres @ 0.8 g/t Au & 1.7 % Cu from 48 metres in OBURC004 inc. 3 metres @ 2.1 g/t Au & 4.8 % Cu from 53 metres
- 4 metres @ 0.7 g/t Au & 2.0 % Cu from 40 metres in OBURC005
- > 1 metre @ 8.5 g/t Au & 6.7 % Cu from 123 metres in OBURC007
- 32 metres @ 1.7 g/t Au & 0.6 % Cu from 76 metres in OBURC011 inc. 6 metres @ 4.9 g/t Au & 2.1 % Cu from 83 metres
- 6 metres @ 4.9 g/t Au & 0.9 % Cu from 24 metres in OBURC012
- 50 metre @ 0.9 g/t Au & 0.5 % Cu from 24 metres in OBURC016
- 12 metres @ 1.5 g/t Au & 0.5 % Cu from 27 metres in OBURC021
- 19 metres @ 0.5 g/t Au & 1.0 % Cu from 44 metres in OBURC022
- 9 metres @ 1.0 g/t Au & 0.7 % Cu from 28 metres in OBURC025
- 3 metres @ 16.1 g/t Au & 0.5 % Cu from 35 metres in OBURC028
- > 9 metres @ 1.0 g/t Au & 1.5 % Cu from 115 metres in OBURC031
- > 12 metres @ 1.3 g/t Au & 0.8 % Cu from 163 metres in OBURC032

Analysis of samples collected in fresh rock or saprock (below 100 metres down hole depth) reveal that while there is no direct correlation between copper and gold, all very magnetic samples (returning greater than 250 x 10⁻³ SI units) also contain greater than 1.5 g/t Au and 2.5 % Cu (refer to ASX Announcement dated 23 May 2014).

This correlation between magnetite alteration and copper and gold suggests that magnetism could be used as an exploration tool for targeting mineralisation and during April and May 2014 Southern Geoscience Consultants completed 3D inversion modelling of ground magnetic data collected in 2013 to better understand the geometry of the strong magnetic anomaly and its spatial relationship with the previous RC drilling.

The inversion modelling suggested that the magnetic anomaly strikes northwest, dips steeply to the west, and plunges steeply to the southeast, with the highest magnetic part of the anomaly being approximately 190 metres long and 120 metres wide using a 90 x 10^{-3} SI isosurface (Figure 3).



These results also revealed that the highest magnetic part of the Burns magnetic anomaly had not been tested by RC drilling, with the magnetic body starting at 100 vertical metres depth and positioned to the west and below the existing drilling (Figures 3 and 4).



Figure 1: Hogan's Project: Tenement Location Plan







Figure 2: Burns Prospect: Gold and copper in regolith anomalism defined by aircore drilling on an aeromagnetic image

Legend-

Light green contour: + 0.1 % copper in regolith anomalism Orange contour: + 0.1 g/t gold in regolith anomalism

<u>Drill Holes</u> Black dots: aircore holes White dots: RC holes Red dot: location of diamond hole OBUDD001

Black dashed line: salt lake margin





Figure 3: Burns Prospect: 3D Inversion Model of ground magnetic data (red shape: 90 x 10⁻³ SI isosurface) with RC drilling (view from below surface and to the northeast)

Diamond Drilling

One diamond hole (OBUDD001), totalling 401.5 metres, was drilled at the Burns Prospect to test for copper and gold mineralisation associated with the high-magnetic anomaly defined by 3D inversion modelling of ground magnetic data.

An HQ pre-collar was drilled to 35 metres depth using a blade bit and cased off before completing the remainder of the hole using diamond drilling with NQ2 sized rods.

This drill hole intersected strongly fractured high-magnesian pillow basalt between 35.0 and 268.25 metres depth with minor feldspar-porphyritic intermediate intrusive rocks. A broad feldspar-porphyritic intermediate intrusive was intersected between 268.25 and 337.9 metres depth, before entering chlorite altered high-magnesian pillow basalt intruded by feldspar-porphyritic intermediate rocks (Figure 4).

Between 191 and 284 metres depth variably strong magnetic rocks are observed that are interpreted to correlate with the targeted high-magnetic anomaly. This magnetism occurs within both mafic and intermediate rocks. A 3.6 metre wide zone of very high magnetism from 253.7 to 257.3 metres depth correlates with a mafic-dominant (chlorite-magnetite) breccia zone that contains intermediate intrusive clasts and a zone of massive magnetite-chalcopyrite mineralisation at the footwall contact. This structure dips steeply to the west and is interpreted to be the main northwest trending magnetic structure observed in aeromagnetic data. Further, as it is the only major structure observed in the drill hole it is also interpreted to be the likely "feeder" structure or conduit of copper and gold bearing fluids at the prospect.

The only other structures observed in the drill hole are discrete zones of moderate to strong biotite-chlorite shearing in mafic rocks (with minor chalcopyrite) located at the contact with intermediate intrusive rocks. Most of these contacts and shears also strike northwest and dip steeply to the west.

Widespread disseminated copper mineralisation was observed in the drill hole. In the upper part of the hole secondary chalcocite occurs on joint surfaces (Photo 3) and within epidote-rich pillow margins (Photo 4) (with minor native copper on joint surfaces (Photo 5)). This transitions into primary chalcopyrite at around 175 metres depth.

The main copper-rich zones include part of the breccia zone from 253.7 to 257.3 metres depth and a heavily degraded zone of intermediate intrusive rock between 278.9 and 282.65 metres depth (Photo 6). This heavily degraded zone contains minor massive sulphide mineralisation between 282.65 and 283.2 metres depth. The drill hole contains little copper mineralisation below this area.





Assay results from the drill hole returned three broad zones of low to moderated grade copper and gold mineralisation, with higher grade areas associated with the breccia zone and heavily degraded intermediate intrusive zone discussed above (Figure 4).

All significant assay results are listed in Table 1 and include:

- 38.5 metres @ 0.5 g/t Au & 0.2 % Cu from 184.5 metres
- 55.95 metres @ 0.5 g/t Au & 0.2 % Cu from 229.85 metres inc. 0.9 metres @ 4.5 g/t Au & 2.6 % Cu from 256.4 metres inc. 10.35 metres @ 1.2 g/t Au & 0.6 % Cu from 273.3 metres

A down hole electro-magnetic (EM) survey was completed in the drill hole to test for off-hole conductors associated with the copper and magnetite mineralisation.

This survey identified six localised EM sources ranging in areal size from ~10x10m to ~25x25m with moderate conductance levels. These conductive sources are situated between 200 and 340 metres down hole depth and clearly correlate with magnetite and/or sulphide bearing units. The conductive sources appear to be sub-vertical.

Discussion

Diamond hole OBUDD001 has substantially improved the geological understanding of the host rocks and mineralisation style at the Burns Prospect, with the most significant outcome being the discovery of a chlorite-magnetite breccia zone that appears to strike northwest and correlate with;

- 1. The main high-magnetic anomaly and magnetic trend observed at the prospect, and
- 2. A two kilometre long copper in regolith anomaly defined by aircore drilling at the prospect.

This zone is interpreted to be the main "feeder" structure or primary conduit of mineralising fluids at the prospect and contains massive magnetite-chalcopyrite mineralisation with potentially economic grades of copper and gold.

Secondary controls on the distribution of copper and gold appear to be permeable zones along fractured pillow basalt margins, sheared mafic-intermediate rock contacts, factures within the intermediate intrusive rocks, and remobilisation of copper and gold due to weathering processes.

The "feeder" structure presents a two kilometre long discrete planar structure for future drill testing.

It should be noted that drill hole OBUDD001 was designed to target the most magnetic area of the Burns Prospect as defined by 3D inversion modelling. It is however likely that the most copper and gold rich areas of the prospect will not be as magnetic as the area targeted because copper bearing minerals will be more concentrated than the magnetite.

Future exploration at the Burns Prospect will therefore focus on targeting less magnetic and dilational areas of the "feeder" structure that may contain broader zones of higher grade copper and gold.

Competent Persons Statement

The information in this report that relates to Exploration Targets, Exploration Results, Mineral Resources or Ore Reserves is based on information compiled by Anthony Gray, a Competent Person who is a Member of the Australian Institute of Geoscientists. Mr Gray is a full-time employee of the company. Mr Gray has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being 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 Gray consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.



			Table 1.			
Burns Prospect: Significant Assay Results						
Hole ID	From (m)	То (m)	Interval (m)	Au (g/t)	Cu (%)	AuEq* (g/t)
OBUDD001	57.00	76.55	19.55	0.1	0.1	0.3
inc.	73.25	73.55	0.30	2.0	0.3	2.4
	98.75	102.00	3.25	0.2	0.1	0.3
	174.65	175.40	0.75	0.1	0.8	1.5
	184.50	223.00	38.50	0.5	0.2	0.7
inc.	185.30	195.20	9.90	0.7	0.4	1.3
inc.	189.20	194.20	5.00	1.2	0.4	1.9
inc.	207.20	215.00	7.80	1.1	0.2	1.5
inc.	214.20	215.00	0.80	4.1	0.9	5.6
	229.85	285.80	55.95	0.5	0.2	0.9
inc.	256.40	257.30	0.90	4.5	2.6	8.8
inc.	273.30	283.65	10.35	1.2	0.6	2.3
inc.	278.40	283.65	5.25	1.4	1.0	3.1
	332.00	341.20	9.20	0.2	0.1	0.3

Notes:

- Half core samples collected over 0.15 metre to 1.5 metre intervals from 35.0 277.3 metres and 283.65 401.5 metres down hole depth. 1.
- Whole core samples collected over 0.45 metre to 0.65 metre intervals from 277.3 283.65 metres down hole depth. 2.
- З. All samples analysed for Au, Ag, As, Cu, Fe, Mo, Pb, S, Zn.
- Gold analysis conducted by Inspectorate KalAssay (Kalgoorlie Laboratory) using a 40 gram Fire Assay Digest with AAS Finish. 4.
- Multi-element analysis conducted by Inspectorate KalAssay (Kalgoorlie Laboratory) using a Four Acid Digest with ICP-OES Finish. 5. 6.
- "inc." denotes "including", and "AuEq" denotes "gold equivalent grade".
- Gold equivalent grade is provided for indicative purposes only and is based on the following assumptions; gold price: A\$1,400/oz, 7. copper price: A\$7,500/t, 100% metal recovery

(no metallurgical test work has been completed on the Burns Prospect mineralisation)

			Table 2.			
Burns Prospect: Diamond Drill Hole Details						
Hole Number	Northing (MGA)	Easting (MGA)	Elevation (mRL)	Azimuth (MGA)	Dip	Depth (m)
OBUDD001	6549745.110	407197.858	289.945	93.27	-62.22	401.5



Photo 3. Secondary chalcoclte on joint surface





Figure 4. Burns Prospect: 6549730mN Cross-Section

Legend-

<u>Geology</u> Light green: high-magnesian basalt (Archaean) Grey: intermediate intrusive rocks (Archaean) Orange: weathered rocks (Archaean) Light blue: transported cover sediments (Recent and Tertiary) <u>Drill Holes</u> Blue: 0 – 0.1 g/t AuEq Green: 0.1 – 0.5 g/t AuEq Yellow: 0.5 – 1.0 g/t AuEq Red: 1.0 – 5.0 g/t AuEq Cyan: > 5.0 g/t AuEq

Purple polygon: high-magnetic target (90 x 10³ SI isosurface defined by 3D inversion modelling) Cyan histogram: down hole magnetic anomalism (peaks to the right indicate very magnetic zones) Dark green dashed line: interpreted copper-magnetite breccia zone

23 denotes RC hole number OBURC023 DD01 denotes diamond hole number OBUDD001 0.9(4.5, 2.6) denotes 0.9 metres grading 4.5 g/t Au and 2.6 % Cu AuEq denotes gold equivalent grade - Gold equivalent grade is provided for indicative purposes only and is based on the following assumptions; gold price: A\$1,400/oz, copper price: A\$7,500/t, 100% metal recovery





Photo 4. Chalcoclte, chalcopyrite, and pyrite in pillow margin



Photo 5. Native copper on joint surface



Photo 6. Degraded intermediate intrusive with chalcocite, chalcopyrite, and pyrite



Photo 7. PVC laid out on ground ahead of running down the hole for down hole electromagnetic survey



JORC Code, 2012 Edition – Table 1 Report: Burns Prospect Diamond Drilling

Section 1 Sampling Techniques and Data

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

Criteria	Commentary
Sampling techniques	Diamond core hole drilled using NQ2 sized rods. Half core cut and samples collected over 0.15 metre to 1.5 metre intervals from 35.0 – 277.3 metres and 283.65 – 401.5 metres down hole depth. Whole core samples collected over 0.45 metre to 0.65 metre intervals from 277.3 – 283.65 metres down hole depth due to degraded core.
Drilling techniques	HQ sized pre-collar drilled to 35.0 metres depth using a blade bit with open hole – no samples collected from this interval. Diamond core hole drilled using NQ2 sized bit and rods from 35.0 to 401.5 metres depth (end of hole).
Drill sample recovery	Lost core was noted by the drillers on core blocks, reconciled by the geologist, and noted on the geological logging sheets. Copper mineralisation on joint surfaces may have been eroded during core cutting. The interval 277.3 – 283.65 metres down hole was whole core sampled due to the degraded nature of the core.
Logging	The entire drill hole was logged visually in detail by a qualified geologist. Geological logs are qualitative in nature.
Sub- sampling techniques and sample preparation	Half core cut and samples collected over 0.15 metre to 1.5 metre intervals from 35.0 – 277.3 metres and 283.65 – 401.5 metres down hole depth. Whole core samples collected over 0.45 metre to 0.65 metre intervals from 277.3 – 283.65 metres down hole depth due to degraded core. The Company did not submit duplicate or standard samples and relied on laboratory QAQC.
	Sample pulps have been retained and half core is retained for most of the drill hole.
Quality of assay data and laboratory tests	Samples routinely analysed for gold using the 40 gram Fire Assay Digest technique with an AAS finish and for Ag, As, Cu, Fe, Mo, Pb, S, Zn using the Four Acid Digest technique with ICP-OES finish The Fire Assay and Four Acid Digest techniques are considered to be a near total digest for the relevant elements being analysed
Verification	The results have been reviewed by alternative company personnel and no errors identified.
of sampling and assaying	Sampling data is recorded in hard copy format and entered into a digital database. Digital assay data and hard copy data provided by the laboratory is matched against sample numbers in the digital database.
Location of data points	Drill hole collar location was surveyed by a qualified surveying contractor and reported in GDA94, MGA Zone 51 coordinates.
	A down hole gyroscopic survey was completed in the drill rods due to the magnetic intensity of the target area. Data was collected over the entire hole length at 5 metre intervals.
Data spacing and distribution	One diamond hole was drilled 60 metres to the west of where previous RC drilling was completed on four 40 metre spaced traverses with approximately 20 metre spaced holes.
Orientation of data in relation to geological structure	The main magnetic trend strikes northwest. The drill hole was oriented -60 degrees to the east to provide the opportunity to identify north-south, northwest, and northeast oriented structures. There is no known bias in the orientation of this sampling.
Sample security	Drill sample pulps and drill core are retained by the Company in Kalgoorlie.
Audits or reviews	No audits or reviews of the sampling technique or data have been completed.





Section 2 Reporting of Exploration Results (Criteria listed in the preceding section also apply to this section.)

Criteria	Commentary
Mineral tenement and land tenure	The Burns Prospect is located on exploration licence E15/1097 that is owned 100% by Octagonal Resources (WA) Pty Ltd, a wholly owned subsidiary of Octagonal Resources Limited.
status	The tenement is current and in good standing.
Exploration done by other parties	Modern exploration within the area of exploration licence E15/1097 has been completed by WMC Resources Limited and Newmont Exploration Pty Ltd.
	The Burns Prospect was discovered by Octagonal Resources Limited in 2011.
Geology	The Burns Prospect is located within the Eastern Goldfields Province of Western Australia and positioned in the southern part of the Norseman - Wiluna Greenstone Belt within the Kalgoorlie Terrane, near the triple junction of three crustal units; the Parker and Boorara domains of the Kalgoorlie Terrane and the Bulong Domain of the Kurnalpi Terrane, each of which is bounded by regionally persistent faults with long histories of reactivation.
	The deposit is unique in the area, consisting of copper and gold mineralisation, associated with magnetite-biotite alteration, and hosted in fractured high-magnesian basalt and intermediate intrusive rocks with little quartz veining.
Drill hole Information	See Table 2.
Data	All reported grades have been length weighted.
aggregation methods	Samples returning greater than 0.1 g/t Au or 0.1 % Cu have been composited for reporting (internal dilution of samples containing less than 0.1 g/t Au and 0.1 % Cu are included within mineralised zones).
	Gold equivalent grade is provided for indicative purposes only and is based on the following assumptions; gold price: A\$1,400/oz, copper price: A\$7,500/t, 100% metal recovery (no metallurgical test work has been completed on the Burns Prospect mineralisation).
Relationship between mineralisation widths and intercept lengths	Down hole lengths are reported as the true width cannot be determined with confidence at this stage.
Diagrams	See Figures 2 and 4.
Balanced reporting	Significant assay results are provided in Table 1 for the entire drill hole.
Other substantive exploration data	A down hole electro-magnetic (EM) survey was completed in the drill hole by Outer-Rim Exploration Services Pty Ltd to test for off-hole conductors associated with the copper and magnetite mineralisation.
	Interpretation of the data was completed by Southern Geoscience Consultants.
	This survey identified six localised EM sources ranging in areal size from ~10x10m to ~25x25m with moderate conductance levels. These conductive sources are situated between 200 and 340 metres down hole depth and clearly correlate with magnetite and/or sulphide bearing units. The conductive sources appear to be sub-vertical.
Further work	Additional RC and diamond drilling is required to better define the geometry and distribution of mineralisation at the prospect.