



magnetic resources^{NL}

ASX Release

ASX code: MAU

17 February 2017

Ground Floor
22 Delhi Street
West Perth WA 6005
PO Box 1388
West Perth WA 6872
Telephone 08 9226 1777
Facsimile 08 9321 6571
www.magres.com.au

ABN 34 121 370 232

**EXPLORATION UPDATE FOR
MT JUMBO EAST, WHEEL OF FORTUNE AND MT JUMBO**

Mt Jumbo East

Reconnaissance mapping and sampling at the recently acquired Mt Jumbo East tenements south of Laverton (see MAU ASX release of 17 November 2016) has confirmed gold mineralisation in banded formation (BIF) at Horseshoe Pass. Three rock samples taken from BIF outcrop over a 180m strike length returned grades of between 1.8g/t Au and 3.2g/t Au, confirming historical rock sampling on the BIF in this area. Horseshoe Pass comprises a 600m strike length of BIF horizons which is cut and offset by a series of NW-trending faults. Historical geochemical sampling by both Carpentaria Exploration Company and Western Mining Corporation outlined significant geochemical anomalies (DMP open file reports a9822 and a37938). WMC completed one traverse of drill holes at Horseshoe Pass without significant result however this was not targeted on the BIF. A subsequent drill hole was sited down dip of a 4.6 g/t Au BIF rock sample but did not reach the target depth so this section of the BIF remains untested. The Company is continuing to compile the historic drilling results over this area to facilitate 3D modelling of the data.

It is recognised that gold mineralisation of the Mt Jumbo East is associated with the intersection of NW-trending faults with the BIF horizons. The BIF sequence at Horseshoe Pass is structurally complex and warrants further work to elucidate the structural controls of mineralisation. To this end a detailed ground magnetic survey is being prepared, with the aim of identifying favourable structural targets for drilling.

Wheel of Fortune

7km NW of Mt Jumbo, reconnaissance mapping at the historic Wheel of Fortune gold prospect on application E38/3127 identified a cluster of diggings on quartz veins in mafic volcanics and porphyry with evidence of quartz stockworks in porphyry nearby. Quartz veins in mafic volcanic can be traced in diggings over a 250m strike length. Detailed soil sampling and ground magnetics is currently in progress to assist in drill targeting, particularly for bulk tonnage styles of mineralisation in the porphyry. Also of interest here is a circular intrusive style aeromagnetic anomaly just south of a Proterozoic EW dyke associated with the numerous workings (Figure 1).

For personal use only

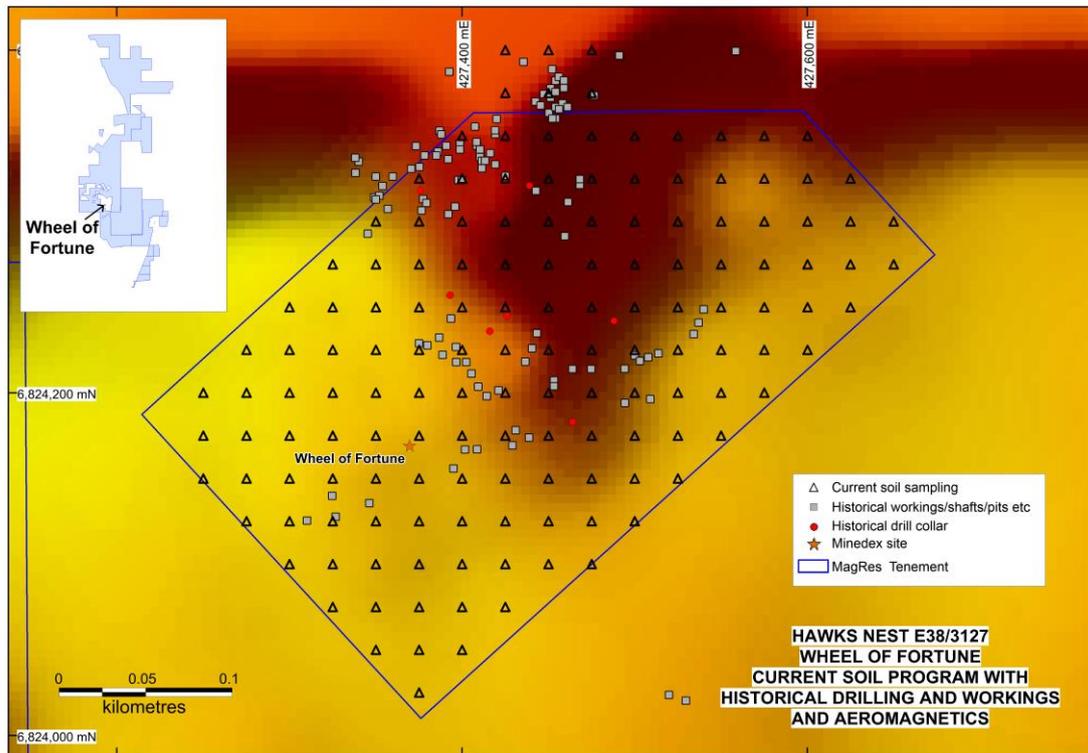


Figure 1. Wheel of Fortune soil sampling program over aeromagnetics and historical workings

Mt Jumbo Shear Zone

As previously reported (MAU December 2016 ASX Quarterly Report), Magnetic completed four drill holes (including two with diamond tails) over a 700m strike length of the Mt Jumbo shear zone to the west of the Mt Jumbo East tenements (Table 1). The drilling intersected a deeply weathered sequence of altered mafic volcanics, ironstones, pyritic carbonaceous shales and ultramafics, with two of the holes bottoming in a massive carbonate unit (Figure 2 and 3).

Core recoveries in MMJRC-01 were highly variable because of the weathered and altered nature of the bedrock. 14 samples of the water return were taken at the collar of the hole for the poor recovery section in pyritic carbonaceous shale and secondary ironstone between 173.0-190.9m and filtered to form sludge samples. The sludge samples contain highly anomalous silver values in excess of 100g/t but gold values are uniformly low. Owing to the nature of the sludge samples they are considered to give only a general indication of grade because of mixing of the drilling fluid in the drill string, however the results do suggest that the core loss material is enriched in silver.

There is evidence of silica-pyrite alteration in some of the carbonaceous shale horizons within the core with high silver grades ranging from 10.7 to 116g/t Ag together with some anomalous molybdenum and tungsten values (up to 46ppm Mo and 304ppm W) occur in MMJRCD-01 as shown in Table 2. The high silver values are associated with pyritic carbonaceous shale, secondary ironstone and weathered mafic volcanics in a zone of variable core recovery. Gold values are low with a

maximum of 0.7m @ 0.11 g/t Au from 182.2m in MMJRCD-01 and 2m @ 0.14 g/t Au from 162m in MMJRCD-02

Table 1.
Mt Jumbo Drill Hole Locations

Hole ID	Collar Coordinates MGAz51		RL	Azimuth	Dip	Depth m	Type
	E	N					
MMJRCD-01	432164	6819098	425	290	-60	231.7	RC/DD
MMJRCD-02	432082	6818912	425	290	-60	224.8	RC/DD
MMJRC-03	432199	6819297	425	290	-60	137.0	RC
MMJRC-04	431948	6818642	425	290	-60	197.0	RC

Table 2
MMJRCD-01 Intercepts in Drill Core

From m	To m	Interval m	Ag g/t	Au g/t
167.9	172.5	4.6	22	0.005
172.5	173.9	1.4	24	0.047
178.0	178.4	0.4	15	0.019
180.4	181.1	0.7	42	0.068
180.4	181.1	0.7	47	0.013
185.9	186.8	0.9	116	0.022
191.9	192.7	0.8	10.7	0.016

The Mt Jumbo structure trends SW into the Company's exploration licence application E38/3127 as evidenced by historical gold drill intersections. Further work is being planned to test both the gold and silver potential of this strike extension.

For personal use only

For personal use only

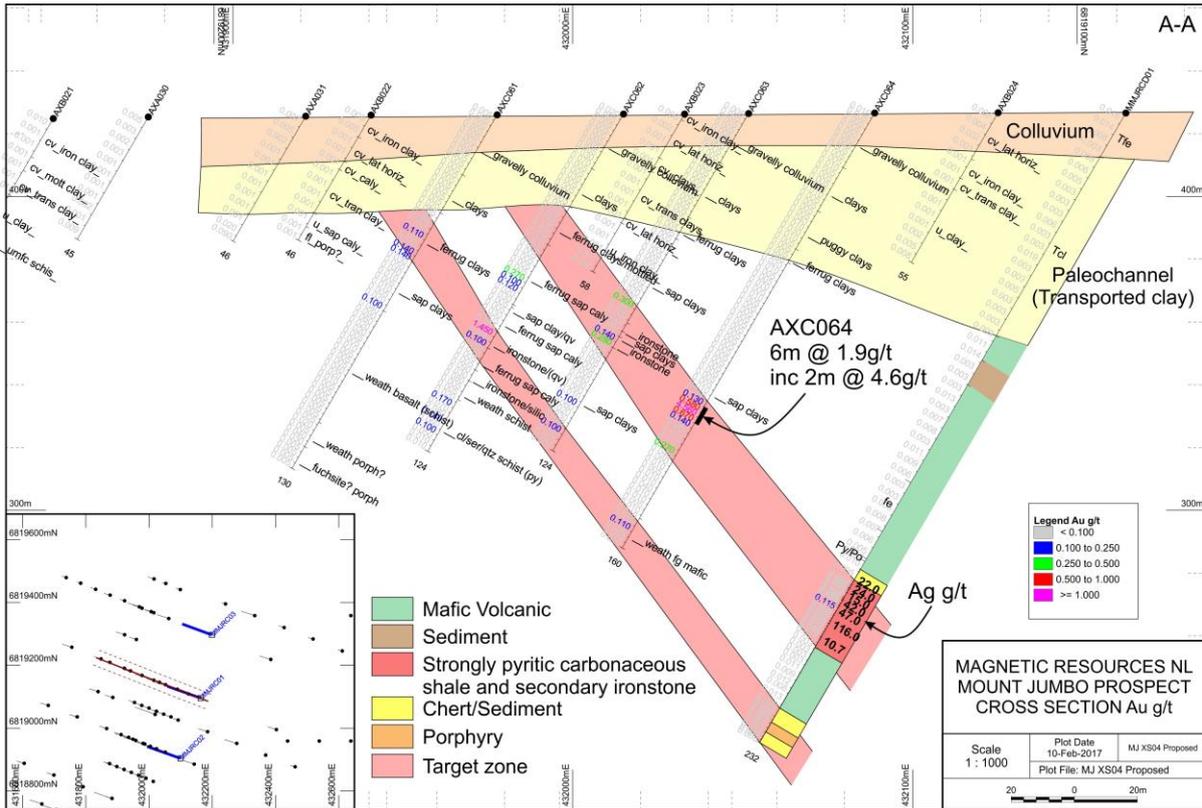


Figure 2. MMJRC-01 Cross Section

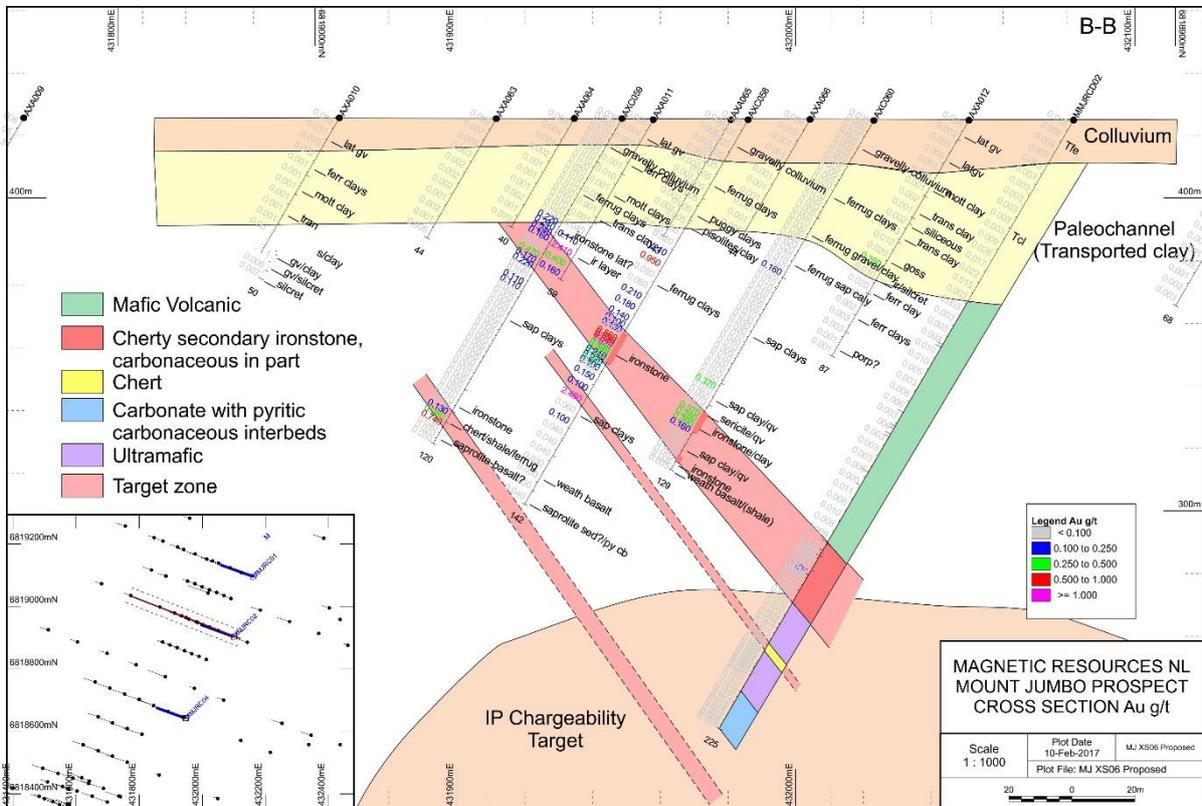


Figure 3. MMJRC-02 Cross Section

For further information, please contact:

George Sakalidis

Executive Director

M+61411640337

george@magres.com.au

COMPETENT PERSON'S STATEMENT

Information in this report that relates to Exploration is based on information reviewed or compiled by George Sakalidis BSc (Hons) who is a member of the Australasian Institute of Mining and Metallurgy. George Sakalidis is a director of Magnetic Resources NL. He has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking 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'. George Sakalidis consents to the inclusion of this information in the form and context in which it appears in this report.

For personal use only

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 style="list-style-type: none"> • <i>Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.</i> • <i>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</i> • <i>Aspects of the determination of mineralisation that are Material to the Public Report.</i> • <i>In cases where ‘industry standard’ work has been done this would be relatively simple (eg ‘reverse circulation drilling was used to obtain 1 m samples from which 3 kg 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.</i> 	<p>Reverse circulation (RC) drilling was used to obtain 1m samples of approximately 3kg from a cyclone in an inline injection box. When the shutter separating the injection box from the cyclone was closed off the sample was dropped through a cone splitter and collected in a calico bag. The bulk sample was discharged from the cyclone directly into green UV-resistant plastic bags for storage on site. The RC drilling method is considered to be industry standard with QA/QC procedures implemented to ensure adequate sample representivity.</p> <p>Diamond drilling was used to obtain NQ2 or NQ3-size core samples which were sawn in half using an Almonte automatic core saw and bagged for assay preparation. Core recovery was measured and marked in plastic core trays using core blocks.</p> <p>Rock chip sampling at Mt Jumbo East was random rock chips across outcropping Banded Iron Formation (BIF). Rock chip sampling at Wheel of Fortune was random rock chip across quartz veins in porphyry.</p>
Drilling techniques	<ul style="list-style-type: none"> • <i>Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).</i> 	<p>RC drilling was carried out by Orbit Drilling Pty Ltd using a Hydco 350 8x8 Tatra rig with a 350psi/1250cfm air capacity and a support 900psi/1800cfm booster compressor. RC drilling was carried out using a 140mm face sampling hammer.</p> <p>Diamond drilling was carried out by Orbit Drilling Pty Ltd using a Boart Longyear LF70 rig using a standard NQ2 tube in drill</p>

Criteria	JORC Code explanation	Commentary
<i>Drill sample recovery</i>	<ul style="list-style-type: none"> • <i>Method of recording and assessing core and chip sample recoveries and results assessed.</i> • <i>Measures taken to maximise sample recovery and ensure representative nature of the samples.</i> • <i>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.</i> 	<p>hole MMJRCD-01 and NQ3 triple tube in drill hole MMJRCD-02.</p> <p>RC samples were visually assessed for recovered volume and any significant loss of sample was recorded. Generally the sample volume was consistent and the sample recovery was good although in some wet sections a reduced sample recovery was noted. Sample recovery was maximized by pulling back the hammer at the completion of each metre of advance and the 1m sample blown back through the rod string. RC drill samples are occasionally wet which may have resulted in sample bias due to preferential loss/gain of fine/coarse material</p> <p>The diamond drilling encountered very difficult drilling conditions, with highly variable rock quality ranging from soft clay to hard siliceous material. The core from each run was measured and the core recovery recorded, with the recovery in hole MMJRCD-01 averaging 63%. Recoveries in hole MMJRCD-02 were improved by using a triple tube core barrel, resulting in an average recovery of 87%. Measures taken to improve sample recovery included drilling short runs of 0.5-1m and switching to the use of a triple tube core barrel. In the case of MMJRCD-01 sludge samples were taken from the drilling fluid return at the drill collar for each run of the poor core recovery zone, air dried and dispatched for assay to compare with the core assays.</p> <p>Insufficient drilling and geochemical data is available at the present stage to evaluate potential sample bias.</p>
<i>Logging</i>	<ul style="list-style-type: none"> • <i>Whether core and chip samples have been geologically and</i> 	<p>RC samples were logged and recorded in individual metres recording colour, lithology, oxidation state, sulphide</p>

Criteria	JORC Code explanation	Commentary
	<p><i>geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.</i></p> <ul style="list-style-type: none"> <i>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</i> <i>The total length and percentage of the relevant intersections logged.</i> 	<p>occurrence, veining, alteration, sample interval and depth. Data is physically and electronically stored. Representative drill chips for each metre are phographed and stored in chip trays. The level of logging detail is considered appropriate for exploration drilling. Diamond core was logged by lithological unit recording colour, lithology, oxidation state, sulphide occurrence, veining, alteration, sample interval and depth. Data is physically and electronically stored. The core trays were phographed. The logging is qualitative in nature. All drill holes were logged in full.</p>
<p><i>Sub-sampling techniques and sample preparation</i></p>	<ul style="list-style-type: none"> <i>If core, whether cut or sawn and whether quarter, half or all core taken.</i> <i>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</i> <i>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</i> <i>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</i> <i>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.</i> <i>Whether sample sizes are appropriate to the grain size of the material being sampled.</i> 	<p>4m composite RC samples were taken by spear sampling the 1m bulk sample using a sampling tube to form a 3kg sample for assay. Wet samples were allowed to dry before sampling. Follow up sampling of geochemically anomalous zones anomalous used the 3kg 1m splits from the cone splitter. The RC sub sampling method is considered appropriate for exploration drilling. Diamond core was sawn in half and sampled at intervals of between 0.4m and 2m. All the drilling completed was sampled and assayed. No duplicate samples were taken at this stage other than the sludge samples from the poor recovery zone in MMJRCD-01. Rock sampling at Mt Jumbo East comprised 2-3kg samples. The RC, Diamond core and rock sample sizes are considered appropriate for gold mineralization.</p>
<p><i>Quality of assay data and laboratory</i></p>	<ul style="list-style-type: none"> <i>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</i> <i>For geophysical tools, spectrometers, handheld XRF</i> 	<p>4m composite RC samples, 1m follow up RC samples, Diamond core samples and the sludge samples were analysed for Au using a 50g lead collection fire assay with an AAS finish. Fire assay is considered to be a total digestion technique. Diamond drill sludge samples and the Mt Jumbo East rock samples were analysed for</p>

Criteria	JORC Code explanation	Commentary
tests	<p><i>instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.</i></p> <ul style="list-style-type: none"> • <i>Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.</i> 	<p>Ag, Cu, Pb, Zn, Ni, As, Bi, Sb, Mo, Te and W using a 10g aqua regia digestion with an ICP/MS finish. This method gives a near total digestion. The rock samples were also analysed for Au using this method. No geophysical tools were used to determine any element concentrations. Certified reference standards were inserted into the sample sets. Sample preparation checks were carried by the laboratory as part of their internal procedures to ensure the grind size was 85% passing 75 micron was being attained. Laboratory QA/QC involved the use of internal lab standards using certified reference material, blanks, splits and replicates as part of the in house procedures.</p>
Verification of sampling and assaying	<ul style="list-style-type: none"> • <i>The verification of significant intersections by either independent or alternative company personnel.</i> • <i>The use of twinned holes.</i> • <i>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</i> • <i>Discuss any adjustment to assay data.</i> 	<p>The Company's consulting geologist has visually verified significant intersections. No twinned holes have been drilled on the project to date. Primary data was collected manually and transposed into Excel templates. The information was sent to a database contractor for validation and compilation into the Company's in house database. No adjustments or calibrations were made to any of the assay data reported.</p>
Location of data points	<ul style="list-style-type: none"> • <i>Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.</i> • <i>Specification of the grid system used.</i> • <i>Quality and adequacy of topographic control.</i> 	<p>Drill hole collars and rock sample locations were surveyed by hand held GPS with an accuracy of +/- 5m. The diamond drill holes were surveyed using a downhole camera. No downhole surveys were completed on the RC drill holes. The grid system used at Mt Jumbo is GDA94 (MGA), zone 51. Topographical data is based on historic maps, which in flat terrain such as at Mt Jumbo is considered adequate.</p>
Data spacing and distribution	<ul style="list-style-type: none"> • <i>Data spacing for reporting of Exploration Results.</i> • <i>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</i> 	<p>Data spacing is currently defined by the geological criteria regarded appropriate to determine the extent of mineralisation. RC drill samples were composited as described above.</p>

Criteria	JORC Code explanation	Commentary
	<p><i>estimation procedure(s) and classifications applied.</i></p> <ul style="list-style-type: none"> <i>Whether sample compositing has been applied.</i> 	
<i>Orientation of data in relation to geological structure</i>	<ul style="list-style-type: none"> <i>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</i> <i>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.</i> 	The drilling is not necessarily drilled perpendicular to the orientation of the mineralisation. All reported intervals are downhole intervals and not calculated true width. At this stage it is not known if the relationship between drilling orientation and mineralised structures has introduced a sampling bias.
<i>Sample security</i>	<ul style="list-style-type: none"> <i>The measures taken to ensure sample security.</i> 	RC samples and rock samples in calico bags were sealed in polyweave bags for delivery to Toll Ipec in Laverton for transport to MinAnalytical laboratory in Perth. Bagged cut core samples prepared by the Company's consultant were delivered directly to the MinAnalytical laboratory in Perth.
<i>Audits or reviews</i>	<ul style="list-style-type: none"> <i>The results of any audits or reviews of sampling techniques and data.</i> 	A review of the sample quality as recorded by the geologist on the drill rig against assay results has been carried out. The issue of high silver and anomalous tungsten and molybdenum in the core sludge samples is dealt with in the text of the release.

Section 2 Reporting of Exploration Results

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

Criteria	JORC Code explanation	Commentary
<i>Mineral tenement and land tenure status</i>	<ul style="list-style-type: none"> <i>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</i> 	The Mt Jumbo prospect is situated within Exploration Licence E38/3100, 100% owned by Magnetic Resources NL. E38/3100 is situated on Mt Weld pastoral lease. The project is not subject to any native title interests. The tenement is in good standing with no known impediments to obtaining a licence to

Criteria	JORC Code explanation	Commentary
	<p><i>environmental settings.</i></p> <ul style="list-style-type: none"> <i>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.</i> 	<p>operate.</p> <p>The Mt Jumbo East tenements comprise applications for P38/4317-4324 held 100% by Magnetic Resources NL, subject to a 2% gross royalty interest by Ucabs Pty Ltd, applicable after the first 20,000ozs of gold production.</p> <p>Wheel of Fortune is situated on EL application E38/3127 held 100% by Magnetic Resources.</p>
<p><i>Exploration done by other parties</i></p>	<ul style="list-style-type: none"> <i>Acknowledgment and appraisal of exploration by other parties.</i> 	<p>During the period 1993-1996 Normandy Exploration Ltd carried out a programme of geochemical surveys, RAB, Aircore, RC and Diamond drilling at Mt Jumbo to define a 1.3km strike length of mineralised ironstones and gossans within a deeply weathered sequence of mostly mafic volcanics, in part obscured by a paleochannel of transported clay and gravel. Some 78 RC and Diamond holes were completed with intersections including 15m @ 2.4g/t Au from 97m (hole AXC13), 4m @ 7.2g/t Au from 104m (hole AXC48) and 2m @ 4.6g/t Au from 110m (hole AXC64). Some of these intersections remained open at depth and were the target of the current drilling programme.</p> <p>Carpentaria Exploration Company carried out rock chip sampling geological mapping and drilling at Mt Jumbo East during the period 1980-1989. This was followed by further drilling carried out by Western Mining Corporation during the period 1990-1993.</p> <p>Limited historic drilling has been carried out at Wheel of Fortune but does not appear to have been targeted at the porphyry.</p>
<p><i>Geology</i></p>	<ul style="list-style-type: none"> <i>Deposit type, geological setting and style of mineralisation.</i> 	<p>The Mt Jumbo prospect is situated in the hinge area of the Mt Margaret Anticline, a regional fold structure in the Laverton area, in a sequence of mafic and ultramafic rocks between the Garden Well and Gladiator BIF sequences. The mineralisation</p>

Criteria	JORC Code explanation	Commentary
		<p>outlined by Normandy Exploration is associated with secondary ironstone and gossan within a deeply weathered mafic/ultramafic sequence. Owing to the deeply weathered nature of this mineralised zone the nature of the gold mineralisation is not yet fully understood.</p> <p>The Mt Jumbo East prospect is situated over the Gladiator BIF sequence on the eastern limb of the Mt Margaret Anticline. Gold mineralisation is largely hosted by BIF, particularly where cut by NW trending fault structures.</p>
<p><i>Drill hole Information</i></p>	<ul style="list-style-type: none"> • <i>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:</i> <ul style="list-style-type: none"> ○ <i>easting and northing of the drill hole collar</i> ○ <i>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</i> ○ <i>dip and azimuth of the hole</i> ○ <i>down hole length and interception depth</i> ○ <i>hole length.</i> 	<p>Refer to Appendix 2 for details of the drilling.</p>
<p><i>Data aggregation methods</i></p>	<ul style="list-style-type: none"> • <i>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.</i> • <i>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.</i> 	<p>All reported assays have been length weighted, with no minimum or maximum grade truncations. No metal equivalent values have been used for reporting exploration results.</p>

Criteria	JORC Code explanation	Commentary
	<ul style="list-style-type: none"> The assumptions used for any reporting of metal equivalent values should be clearly stated. 	
<i>Relationship between mineralisation widths and intercept lengths</i>	<ul style="list-style-type: none"> These relationships are particularly important in the reporting of Exploration Results. If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported. If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known'). 	Drilling at Mt Jumbo was oriented at an azimuth of 290° at -60°. The orientation of the target zone is a strike direction of 020° dipping 45-50° SE. The intersection angles of the majority of the drilling were in the range 75-80°, making the downhole intersections about 90% of the true width of the intersection.
<i>Diagrams</i>	<ul style="list-style-type: none"> 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. 	Refer to the text and figures of the release.
<i>Balanced reporting</i>	<ul style="list-style-type: none"> 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. 	Refer to the text of the release.
<i>Other substantive exploration data</i>	<ul style="list-style-type: none"> 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. 	Geological observations reported for Mt Jumbo are taken from historical drilling reports by Normandy Exploration Ltd. Geological observations for Mt Jumbo East are taken from historical reports by Carpentaria Exploration Company and Western Mining Corporation.
<i>Further work</i>	<ul style="list-style-type: none"> The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out 	Compilation of historical drill data on the SW strike extension of the Mt Jumbo shear zone into the Company's application for

Criteria	JORC Code explanation	Commentary
	<p><i>drilling).</i></p> <ul style="list-style-type: none"><i>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</i>	<p>E38/3127 is planned once the tenement is granted.</p> <p>Further compilation of historical drill data at Mt Jumbo East is in progress.</p> <p>Geochemical sampling and a ground magnetic survey are planned at Wheel of Fortune.</p>