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# ASX ANNOUNCEMENT / MEDIA RELEASE

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# High-Grade Nickel, Cobalt and Manganese

ABM Resources NL ("ABM" or "the Company") is pleased to provide an update on surface geochemical sampling and geological research from the Warumpi margin project, which is part of the Lake Mackay Regional Project alliance with Independence Group NL.

### Du Faur prospect, part of the Warumpi margin project

- Rock sample from the Du Faur prospect returns high-grade results:
  - o **1.60% nickel**
  - 1.61% cobalt
  - o 38.5% manganese
- 7km by 5km nickel anomaly in soil sampling with peak value of 1300 parts per million (ppm) nickel in soils.
- **Oval shaped body** largely coincident with soil geochemistry, represented in magnetic geophysical data and also visible as a landform / vegetation anomaly in satellite imagery data inferred to be a mafic / ultramafic intrusion.
- Mapped **gabbronorite and norite intrusive rocks** a rock type closely associated with magmatic nickel-copper-cobalt sulphide deposits.
- Located in the Northern Territory, 400km west of Alice Springs, 9km north of the Gary Junction Road; and 30 km north east of the town of Kintore.

### Surrounding area to Du Faur prospect / Warumpi margin project

- West Arunta region on the margin of the Warumpi and Aileron Provinces.
- Several other nickel-copper-zinc and gold anomalies identified in soil sampling.
- Ultramafic / mafic intrusive suite of rocks highlighted by Geoscience Australia with high sulphur saturation with potential for magmatic nickel-copper-cobalt deposits analogous to the Voisey Bay project in Canada.
- ABM holds 518km<sup>2</sup> of granted exploration license (EL 24915) surrounding the Du Faur prospect and has recently lodged 3600km<sup>2</sup> of exploration license applications covering large regional gravity anomaly.
- Part of the Lake Mackay Regional Project agreement with Independence Group NL.

Darren Holden, Managing Director of ABM Resources said, "As ABM moves closer to the development of the Old Pirate High-Grade Gold Deposit it is important that we also keep momentum on our exploration and business development activities, including our regional exploration projects. These latest results, whilst early stage, present possible nickel-copper-cobalt and manganese targets and warrant follow up work."

# Du Faur Prospect Area & wider EL24915

In the second half of 2014, Independence Group NL (IGO), in alliance with ABM, conducted broad spaced soil sampling throughout EL 24915. During this program a single rock sample was collected and returned results including 1.60% nickel, 1.61% cobalt and 38.5% manganese. The Northern Territory Geological Survey (NTGS)<sup>1</sup> maps in this area show this area consists of a laterite (a surficial weathering rock) covering nearly 40 km<sup>2</sup>. Furthermore, there are also nearby mapped outcrops of gabbronorite and norite which are mafic intrusive rocks often associated with magmatic nickel sulphide ore bodies around the world. The elemental suite assayed in the rock sample is shown in Appendix 1.

Broad spaced (800m by 800m grid) geochemistry soil sampling was undertaken over the entire 518 km<sup>2</sup> of exploration license EL24915 and has revealed a 7km by 5km nickel anomaly in soils (Figure 1) with a peak value of 1300ppm nickel. This survey also identified several other anomalies with nickel, copper, zinc and gold associations. Manganese and cobalt assays were not conducted as part of this soil survey. ABM has recently lodged, and had accepted, exploration license applications for the adjoining ground to add a further 3600 km<sup>2</sup> of licenses.

The Du Faur geochemistry anomaly is broadly coincident with an oval shaped magnetic anomaly and a surface / vegetation anomaly visible in satellite data. There are three target models for potential mineralisation in this area:

- 1. Magmatic nickel-copper-cobalt sulphide deposits postulated based on published research, presence of sulphur rich gabbronorite / norite, and recent geochemistry results.
- Lateritic nickel-cobalt deposits postulated as a target based on high-grade sample returned from outcrop, NTGS mapping of extensive laterite and extent of soil geochemistry anomalism.
- 3. Lateritic manganese deposits postulated from the single high-grade sample collected, and NTGS mapping of extensive laterite.

The Du Faur prospect is located 400km west of Alice Springs and 9km north of the Gary Junction Road (a road linking Central Australia to the Canning Stock Route Road in Western Australia). The town of Kintore is located 32km to the south west.

<sup>&</sup>lt;sup>1</sup> MEIXNER T, CLOSE DF, SCRIMGEOUR IR, EDGOOSE CJ, 2004. Mount Rennie, Northern Territory (First Edition). 1:250 000 interpreted geological map series, SF 52-15. Northern Territory Geological Survey.



Figure 1. Du Faur prospect. Top image - gravity data (with white areas being gravity highs); with soil sampling (black dots). Middle image – analytical signal of magnetics highlighting the oval shape in magnetic data inferred to represent a gabbronorite intrusive centre. Bottom image is a satellite image showing the oval shaped vegetation / landform anomaly.



Figure 2. Soil geochemistry contours on EL 24915 underlain by bouguer gravity geophysical map. Nickel soil contours (blue lines) range 20 to 220ppm nickel with a 20ppm interval (peak value 1300ppm); copper contours (green lines) range 20 to 80ppm copper with 10ppm interval; zinc contours (grey lines) with 25 to 50ppm zinc with 5ppm intervals; gold contours (yellow lines) bleg (low level detection) 0.8 to 2.6ppb range with 0.2ppb intervals).

#### Background and Geology of the Warumpi margin project

The Arunta geological terrane is represented by Proterozoic metamorphosed sediments and intrusions consisting of provinces including the Tanami, Aileron and Warumpi Provinces. In the 1990s and early 2000s Geoscience Australia (formerly AGSO) highlighted the potential that the ultramafic and mafic intrusions on the margin of the Warumpi and Aileron provinces have high sulphur saturation and are analogous to the host rocks of world-class Voisey Bay nickel-cobalt deposit in Canada<sup>2</sup>. These intrusions occur sporadically in natural outcrop for more than 300km in strike length across the northern margin of the Warumpi and the Aileron Province. In 1999 BHP Billiton flew an airborne electromagnetic survey over the region and in the mid-2000s actively explored several prospect areas and focussed around the Andrew Young Hills located 150km to the east of ABM prospects. Whilst there was some work undertaken in the western areas (where ABM's prospects lie), ABM has been unable to find any previous work suggesting the nickel-cobalt anomalism comparable to that released in this announcement.

ABM has recently acquired a further 3600km<sup>2</sup> of exploration license applications (Figure 3) that cover over 140km of strike length of a pronounced geophysical gravity ridge. These exploration license applications form part of the alliance agreement with Independence Group. The Du Faur prospect is located at the western end of this gravity ridge. The regional gravity anomaly is coincident with the intrusions (including the mafic and ultramafic intrusions), and is inferred to represent a mantle discontinuity along the margin of the Warumpi and Aileron Provinces forming a target area for magmatic nickel-copper-cobalt mineralisation.

<sup>&</sup>lt;sup>2</sup> Hoatson, DM., 2001. Metallogenic Potential of the ultramafic-mafic intrusions of the Arunta province, Central Australia. AGSO Research News 38, May 2001. Geoscience Australia reference GA12180 available on line http://www.ga.gov.au/image\_cache/GA12180.pdf



Figure 3. Gravity geophysical map (bouguer anomaly) and ABM's recent ELAs (Exploration license applications)

#### About ABM

ABM is developing several gold discoveries in the Central Desert region of the Northern Territory of Australia. The Company has a multi-tiered approach to exploration and development with a combination of high-grade production scenarios such as the Old Pirate High-Grade Gold Project, large scale discoveries such as Buccaneer, and regional exploration discoveries such as the Hyperion Gold Project. In addition, ABM is committed to regional exploration programs throughout its extensive holdings including the alliance with Independence Group NL at the regional Lake Mackay Project.



Figure 4. ABM's land position in the Central Desert. Warumpi margin project and Du Faur Prospect labelled in the south

Signed

Darren Holden – Managing Director

#### **Competent Persons Statement**

The information in this announcement relating to recent results from the Lake Mackay Project is based on information compiled by Independence Group NL and reviewed / checked by Mr Darren Holden who is a Member of The Australasian Institute of Mining and Metallurgy. Mr Holden is a full time employee of ABM Resources NL and 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 Exploration Results, Mineral Resources and Ore Reserves". Mr Holden consents to the inclusion in the documents of the matters based on this information in the form and context in which it appears.

### Appendix 1:

Table A.1. Rock Sample result from Du Faur

Sample ID	Easting	Northing	RL	Cobalt (%)	Chrome (Cr2O3) %	Copper (%)	Fe2O3 (%)	Manganese (%)	Nickel (%)	Sulphur (SO3) (%)
LMRC0064	567,450	7,444,775	465	1.613	0.33	0.007	17.7	38.5	1.605	0.13%

# JORC Code, 2012 Edition – Table 1

# Section 1 Sampling Techniques and Data

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul> <li>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.</li> <li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li> <li>Aspects of the determination of mineralisation that are Material to the Public Report.</li> <li>In cases where 'industry standard' work has been done this would be relatively simple (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.</li> </ul>	<ul> <li>The project is reconnaissance soil sampled on a nominal 800m x 800m grid spacing. The sample is uniformly collected from the surface to 20cm depth.</li> <li>The samples are sieved through 0.4mm on site to reduce the sample size.</li> <li>The sample positions are determined by a handheld GPS which records the sample number at the time of sample collection.</li> <li>Sample holes are backfilled upon completion of the sample.</li> <li>A sample description is recorded to specify if it is taken from an area with soil, lag or outcrop in close vicinity to the sample site.</li> <li>Follow up sampling is conducted on more detailed grid spacing using the same sampling technique.</li> <li>The samples are dried and sieved to recover a representative 30g of material at a sample preparation laboratory.</li> <li>A 10g sub-sample is used for analysis by BLEG with an MS finish for Au and Ag. A 0.5g sub-sample is used for analysis by Aqua Regia with ICP-MS finish for As, Bi, Ca, Cu, Fe, Ni, Pb and Zn.</li> <li>Additional material is available for check assaying of either BLEG or Aqua Regia analysis.</li> <li>Rock chip sampling was undertaken by the soil sampling crews whilst sampling and also by geologists during the ground truthing of soil anomalies and mapping.</li> <li>Rock chip samples are collected by geologists as part of targeted or follow-up work, full geological details are logged.</li> <li>Where samples are collected by soil sampling crews, critical details on the nature of the sample location, and the nature of the regolith at the sample site, are recorded.</li> <li>The sample positions are determined by a handheld GPS which records the sample number at the time of sample collection.</li> <li>Rock samples are then subjected to a Cyanide (for precious metals) or Aqua Regia (base metals and other elements of interest) digest. Four acid digest has also been utilised locally.</li> <li>Element concentrations are determined by either Mass Spectroscopy or by</li></ul>
Drilling techniques	<ul> <li>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).</li> </ul>	No drilling reported.
Drill sample recovery	<ul> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> <li>Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> </ul>	No drilling reported.

Criteria	JORC Code explanation	Commentary
	<ul> <li>Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.</li> </ul>	
Logging	<ul> <li>Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.</li> <li>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</li> <li>The total length and percentage of the relevant intersections logged.</li> </ul>	No drilling reported.
Sub-sampling techniques and sample preparation	<ul> <li>If core, whether cut or sawn and whether quarter, half or all core taken.</li> <li>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</li> <li>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> <li>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</li> <li>Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.</li> <li>Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>	<ul> <li>Field duplicate samples are collected every 50 samples, with the material collected from the same sample site.</li> <li>Fine fraction material is utilised to attempt to reduce the diluting effect of the transported sand cover at surface. This is not industry standard but is being attempted to try and utilise surface geochemistry in areas that were previously considered unsuitable for soil sampling.</li> <li>For rock chip samples, field duplicates are not collected; however lab duplicates are analysed as part of the sampling protocols.</li> <li>Preparation methods utilised for rock chip samples are appropriate for the samples taken and the selected analyses.</li> <li>A minimum 2kg sample is considered a sufficient size for the lithologies encountered in the sampling carried out.</li> </ul>
Quality of assay data and laboratory tests	<ul> <li>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</li> <li>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.</li> <li>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.</li> </ul>	<ul> <li>Both BLEG and Aqua Regia are partial digestion techniques</li> <li>BLEG should be suitable for reconnaissance Au exploration at a lower detection limit than Aqua Regia.</li> <li>Aqua Regia should be suitable for base metal exploration and for Au pathfinder elements</li> <li>Laboratory QAQC involves the use of internal lab standards and blanks using certified reference materials.</li> <li>Independence Group also provides reference samples that are inserted every 50 samples.</li> </ul>
Verification of sampling and assaying	<ul> <li>The verification of significant intersections by either independent or alternative company personnel.</li> <li>The use of twinned holes.</li> <li>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</li> </ul>	<ul> <li>The sample coordinates are record on the GPS and recorded on the sample sheet. This is entered in to excel and reviewed by the project manager prior to being submitted to the acquire database.</li> <li>No adjustments or calibrations have been made to the assay data used in this report.</li> </ul>

Criteria	JORC Code explanation	Commentary
	Discuss any adjustment to assay data.	
Location of data points	<ul> <li>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.</li> <li>Specification of the grid system used.</li> <li>Quality and adequacy of topographic control.</li> </ul>	<ul> <li>Sample points were recorded using Garmin handheld GPS. Expected accuracy is + or - 5m for easting and northing.</li> <li>The grid system is MGA_GDA94 (zone 52), local easting and northing are in MGA.</li> <li>Handheld GPS is adequate for soil and rock chip sampling.</li> </ul>
Data spacing and distribution	<ul> <li>Data spacing for reporting of Exploration Results.</li> <li>Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.</li> <li>Whether sample compositing has been applied.</li> </ul>	<ul> <li>The nominal soil sample spacing for reconnaissance is 800m x 800m. This is intended to identify a large mineralized system.</li> <li>Collection of rock samples from observed areas of subcrop and outcrop is deemed sufficient for exploration purposes in the area.</li> <li>No sample compositing has been applied to the soil samples.</li> </ul>
Orientation of data in relation to geological structure	<ul> <li>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</li> <li>If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.</li> </ul>	<ul> <li>The soil and rock chip sampling is only intended to provide a surface soil sample.</li> <li>The initial grid sampling should not have any sample bias.</li> </ul>
Sample security	• The measures taken to ensure sample security.	The soil and rock samples are transported from the field to the sample preparation laboratory in Alice Springs by Independence Group personnel. Once the samples are sieved they are transported to Perth using the laboratories standard chain of custody procedure.
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	• A review of initial BLEG results concluded that Au and Ag were the only elements appropriate for BLEG analysis in the Lake Mackay environment.

# Section 2 Reporting of Exploration Results

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	<ul> <li>Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.</li> <li>The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.</li> </ul>	<ul> <li>The Lake Mackay Project currently consists of the following granted tenements:</li> <li>EL9343, EL9442, EL9449, EL10305, EL10306, EL24299, EL24492, EL24567, EL24858, EL24915, EL24949, EL25630, EL25632, EL25866, EL27780, EL27872, EL27906, EL28028, EL29459, EL29460, EL29483</li> <li>The tenements are in good standing and no known impediments exist.</li> <li>ABM and Independence Group NL ("IGO") entered into a multi-phase agreement covering the Lake Mackay Project on 21 August 2013.</li> <li>Phase1 – Option Phase (ABM retains 100% interest). IGO earns the right to proceed to Phase 2 by spending \$1.6 million on exploration expenditure within 2 years.</li> <li>Phase 2- IGO has the option to enter into a farm-in and joint venture agreement with ABM to earn a 70% interest in the project. This would involve making a \$1M cash payment to ABM or subscribing for \$1.5M ABM shares in placement with a 6 month escrow period and spending \$6M on exploration on the project over 4 years.</li> </ul>

Criteria	JORC Code explanation	Commentary
Exploration done by other parties	<ul> <li>Acknowledgment and appraisal of exploration by other parties.</li> </ul>	<ul> <li>Historically, large parts of the Lake Mackay project area have been moderately explored since 1996 by Newmont Ptl Ltd and then Tanami Gold NL. Hundreds of surface samples were collected and Vacuum-RAB-AC drill holes completed, mainly within the areas of residual soils close to known intercepts.</li> <li>BHPB flew a GEOTEM survey in 1999 and subsequently followed up 10 priority targets with Ground TEM (Moving Loop EM) and tested 8 targets with drilling. These targets are not coincident with the recently recognized Ni anomaly on EL24915.</li> <li>A number of prospects were identified from this work and more moderate levels of shallow RAB, and various geophysical surveys were completed. This exploration identified some sub-economic gold (Au) occurrences, although follow-up work was not completed at that time.</li> <li>ABM followed up these anomalies and conceptual targets in 2011 with targeted and reconnaissance RC drilling, this verified the Tekapo Au and Cu anomalism.</li> </ul>
Geology	<ul> <li>Deposit type, geological setting and style of mineralisation.</li> </ul>	<ul> <li>The region is considered having potential for a range of commodities and mineralising styles. These type of deposits include:</li> <li>IOCG / orogenic gold</li> <li>Porphyry/intrusion related gold and base metals (including IRG)</li> <li>Ultramafic intrusion related Ni-Cu-PGE</li> </ul>
Drill hole Information	<ul> <li>A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes: <ul> <li>easting and northing of the drill hole collar</li> <li>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</li> <li>dip and azimuth of the hole</li> <li>down hole length and interception depth</li> <li>hole length.</li> </ul> </li> <li>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.</li> </ul>	No drilling reported.
Data aggregation methods	<ul> <li>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.</li> <li>Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.</li> <li>The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> </ul>	No data aggregation methods employed

Criteria	JORC Code explanation	Commentary
Relationship between mineralisation widths and intercept lengths	<ul> <li>These relationships are particularly important in the reporting of Exploration Results.</li> <li>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</li> <li>If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').</li> </ul>	Not applicable. Results presented are surface geochemistry.
Diagrams	<ul> <li>Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.</li> </ul>	Maps and diagrams included in the body of this document.
Balanced reporting	<ul> <li>Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.</li> </ul>	All results are reported, with geochemistry reported via gridded displays and contouring.
Other substantive exploration data	<ul> <li>Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.</li> </ul>	• Gravity, magnetics and geological outcrop maps included in the body of this document.
Further work	<ul> <li>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale stepout drilling).</li> <li>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</li> </ul>	<ul> <li>Further work programs are being designed to follow up. Will likely consist of surface sampling and mapping along with drilling if drill targets are generated.</li> </ul>