ASX Announcement

4th April 2022

Multiple MLEM Anomalies Identified at Duketon North

HIGHLIGHTS

- Phase 1 of moving loop electro-magnetic (MLEM) survey completed –
    - First MLEM survey in the northern part of the greenstone belt since 2007
- **Multiple MLEM anomalies** identified at Duketon North Project (short strike length and mid to late times)
    - **Two at Cambridge –** supported by +1000ppm Ni and +100ppm Cu from auger Geochem. within the ultramafic above
    - **One at Albany –** ultramafics noted in historic drillhole logs, only assayed for gold
    - **Two at Camp Oven –** significant Ni and Cu in rock chips nearby
- Heritage survey/clearances over prospective ultramafic completed
- Awaiting PoWs before commencing drilling of MLEM anomalies and other regional targets
- RC rig continues to drill other regional targets

Figure 1: RC rig drilling at Rosie.

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Duketon Mining Limited **(ASX: DKM) ("Duketon" or "the Company")** is pleased to provide an exploration update on the Duketon North area.

The first phase of Moving Loop Electromagnetic (MLEM) has been completed and a number of anomalies have been identified. The MLEM survey covered Kendal, Cambridge, Albany and Camp Oven Prospects. A total of 48-line kilometres on 200-400m spaced lines, covering 17km^2 were completed. First order anomalies have been identified at Cambridge, Albany and Camp Oven. The anomalies at Camp Oven are on the northern most line of the Phase 1 program and remain open to the north. The second phase of MLEM will cover the area north of Camp Oven up to Dover and will commence once an EM crew is sourced.

Two discreet mid time anomalies have been identified at Cambridge. They are both located on the eastern edge of the ultramafic. There is no historic drilling in the area. Historic auger geochemistry highlights the ultramafic package with plus 1000ppm Ni and plus 100ppm Cu (see Figures 3 and 4).

At Albany a strong, late time anomaly is modelled at 2000 Siemens. The area has a thin layer of transported cover and there is no surface geochemistry. Historic drilling over the top of the anomaly was only assayed for gold but logging has recorded ultramafic within the drillholes and recent inspection of drill spoils has identified a sheared ultramafic 200m to the west (see Figures 3 and 5).

At Camp Oven two mid to late time anomalies were detected on the last line of the survey. One along the eastern edge of the ultramafic, the other just off the western edge. Anomalous rock chip geochemistry nearby is up to 0.86% Ni and 1.92% Cu (see Figures 3 and 6).

A Heritage survey was also completed over three days covering all nickel prospective areas in the Duketon North area.

Program of Works approvals have been submitted for these three prospects and a number of others and the current advice from DMIRS is that approval may take over 30 business days.

RC drilling is continuing. Twenty shallow holes were drilled into the oxide zone above the Rosie resource and a number of holes were drilled at the C2 deposit testing the northern and western extents of the mineralisation. A number of other targets have been tested, once

Programme of Works approvals have been granted drilling will continue in the north testing MLEM anomalies and other regional targets.

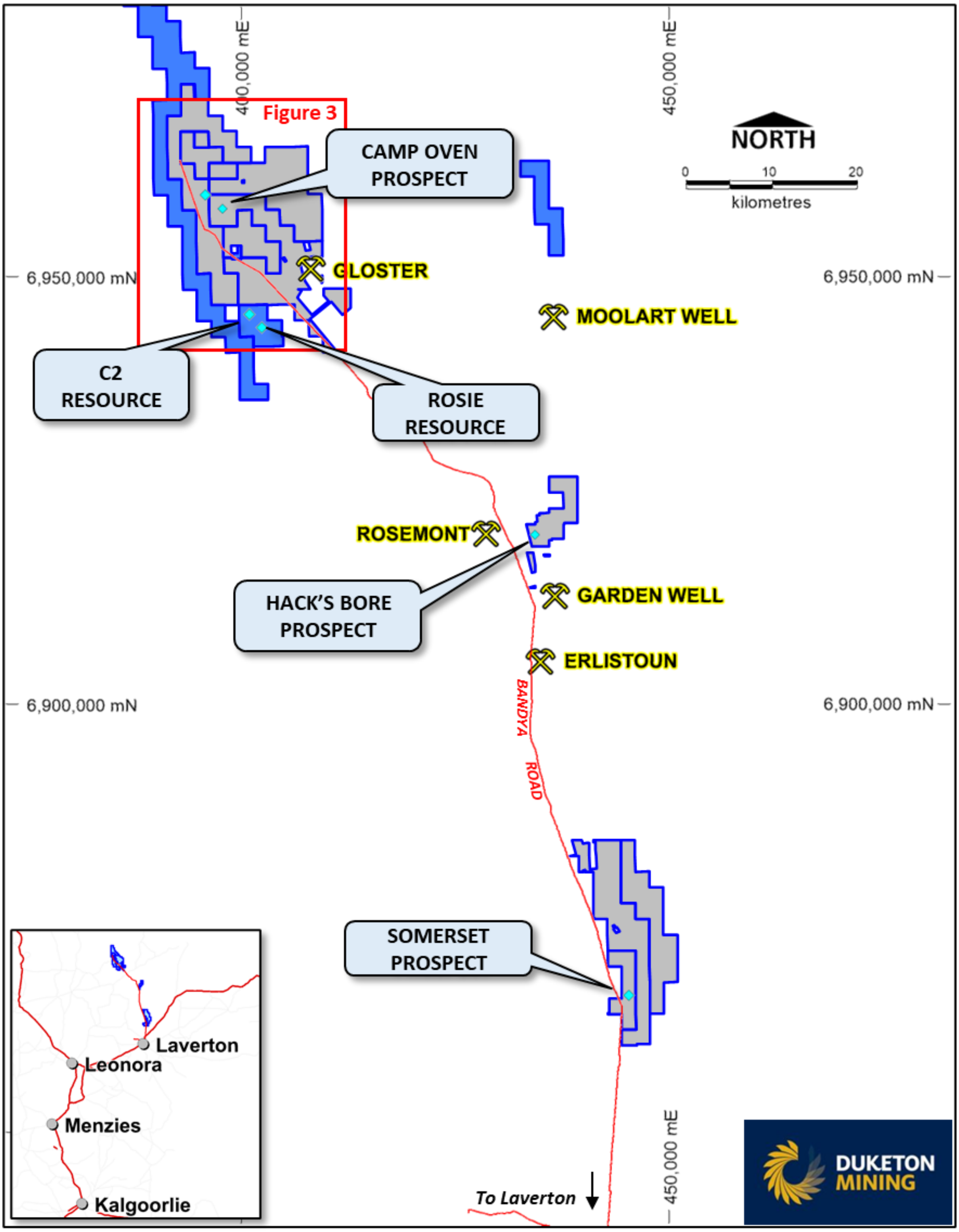

Figure 2: Plan of DKM Tenements showing, Nickel Resources and Prospects.

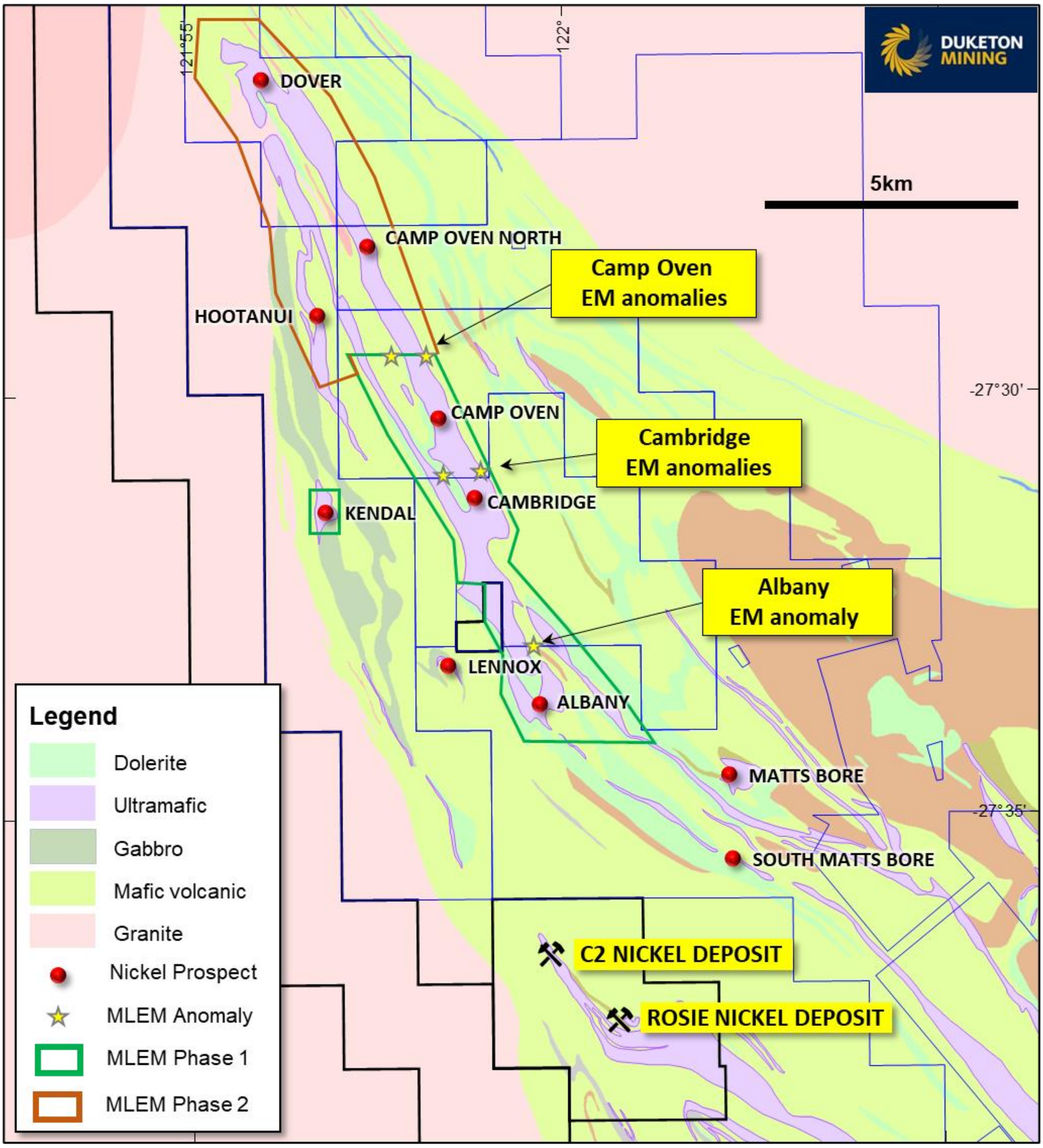

Figure 3: Duketon North Geology, Prospects and location of MLEM anomalies.

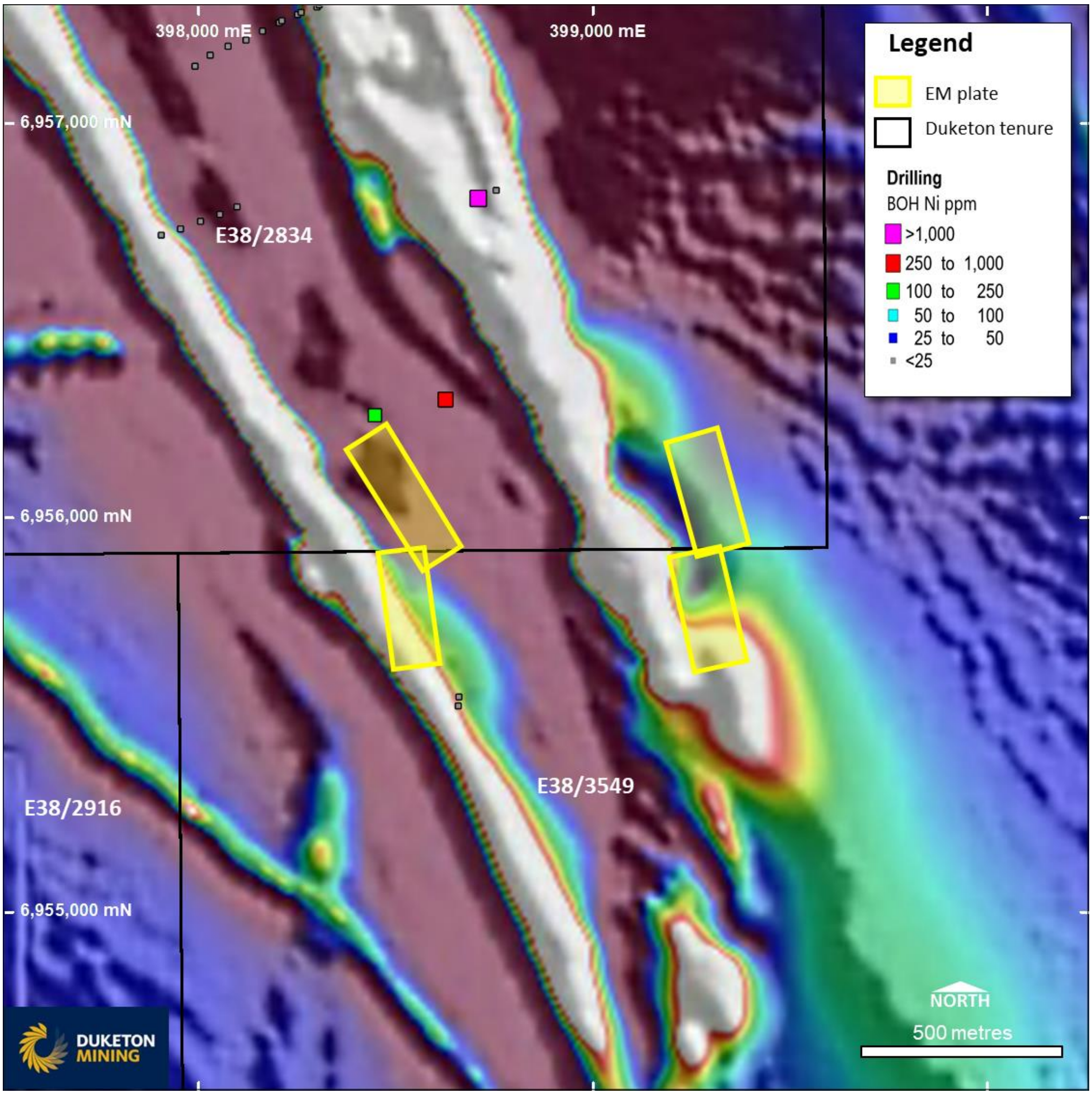

Figure 4: Cambridge Prospect showing MLEM anomalies and historic drilling over magnetics

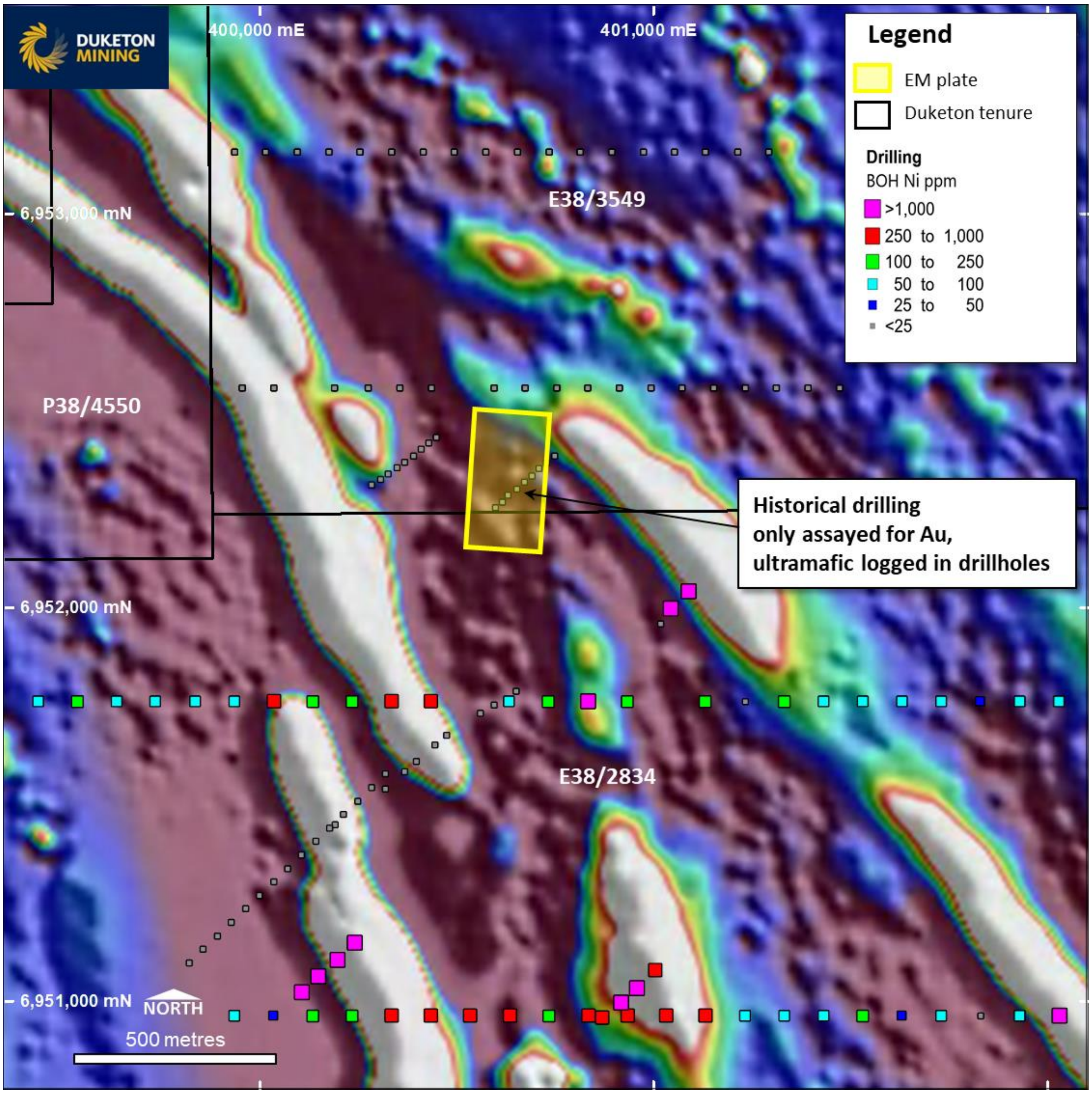

Figure 5: Albany MLEM Anomaly and historical drilling over magnetics

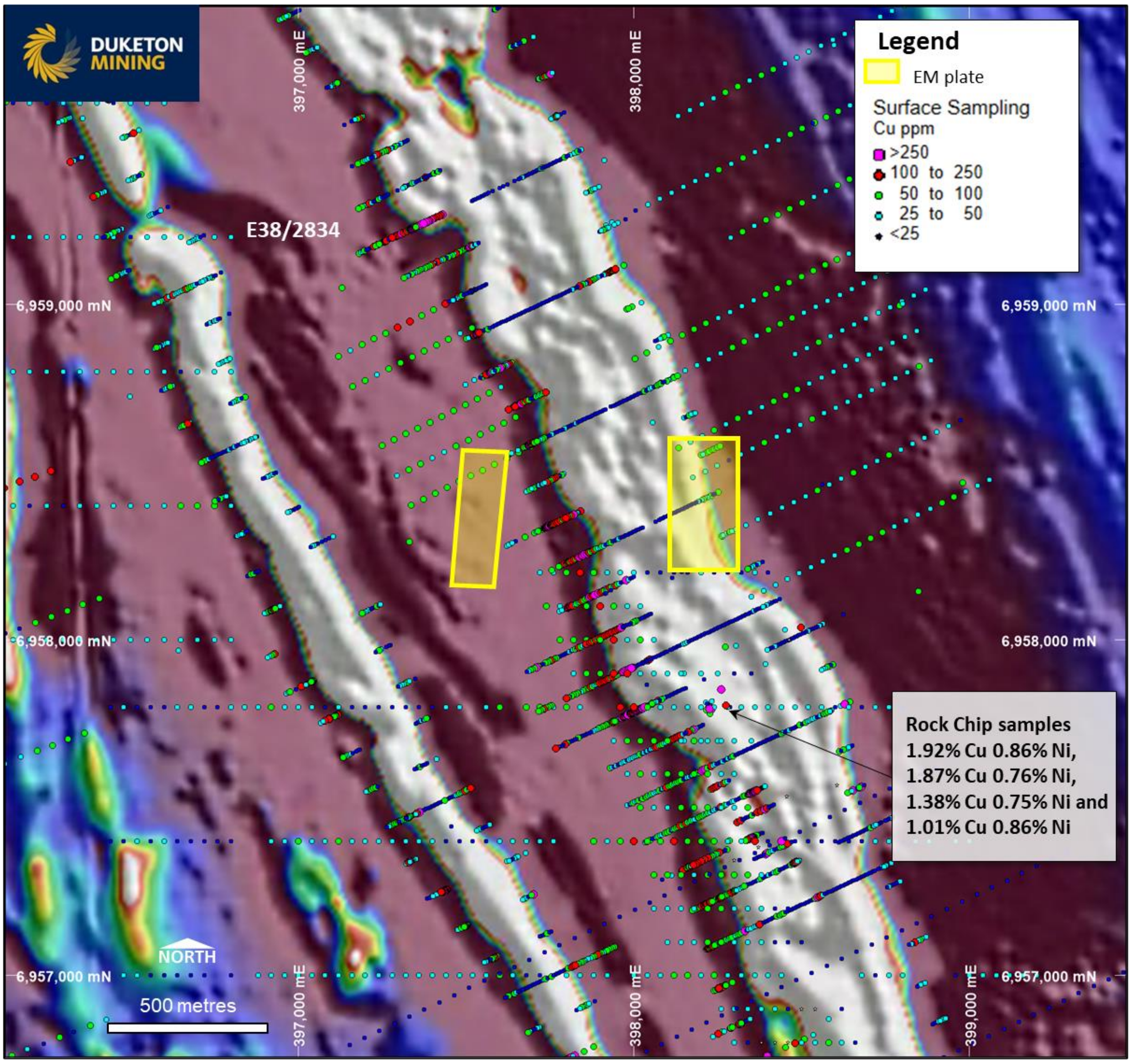

Figure 6: Camp Oven MLEM Anomalies and historical Cu geochemistry over magnetics

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Competent Person Statement:

The information in this report that relates to exploration results is based on information compiled by Ms Kirsty Culver, Member of the Australian Institute of Geoscientists (AIG) and an employee of Duketon Mining Limited. Ms Culver has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity that is being undertaken to qualify as a competent person as defined in the JORC Code 2012. Ms Culver consents to the inclusion in the report of the matters based on the information in the form and context in which it appears.

JORC Table 1

JORC Code, 2012 Edition – Table 1 report – Duketon Project

Section 1 Sampling Techniques and Data –Duketon North Historical Drilling, Regolith Geochemistry & MLTEM

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

Criteria	JORC Code explanation	Commentary
Sampling techniques	• *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.* • *Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.* • *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 (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.*	• Various drilling methods have been employed by previous workers in the historic data presented, including RAB, vacuum, RC and diamond drilling. • Drillholes have been sampled at various intervals which include multi and single metre composites. • The exact sampling methods cannot be determined, with confidence, from the historic data. •
Drilling techniques	• *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).*	• Various drilling methods have been employed by previous workers in the historic data presented, including RAB, vacuum, RC and diamond drilling.
Drill sample recovery	• *Method of recording and assessing core and chip sample recoveries and results assessed.* • *Measures taken to maximise sample recovery and ensure*	• Due to the historic nature of the data, recovery cannot be determined with confidence.

Criteria	JORC Code explanation	Commentary
	representative nature of the samples. • *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.*	
Logging	• *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.* • *Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.* • *The total length and percentage of the relevant intersections logged.*	• Not all geological data for historic drillholes is available. Where data is available, it has been compiled and entered into the company historic database. The data will be unsuitable for use in a Mineral Resource or more advanced study and is to be used as an exploration aid only.
Sub-sampling techniques and sample preparation	• *If core, whether cut or sawn and whether quarter, half or all core taken.* • *If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.* • *For all sample types, the nature, quality and appropriateness of the sample preparation technique.* • *Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.* • *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.* • *Whether sample sizes are appropriate to the grain size of the material being sampled.*	• The nature of the sub-sampling for the RAB, aircore and RC chips has not always been determined due to the historic nature of the data. • The sample preparation and sample size information is not always available due to the historic nature of the data.
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.* • *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.* • *Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels*	• QAQC protocols are not provided in the historic data and it is unlikely to be to the same level as current industry standards. • MLEM parameters: ➢ Loop Size – 200m x 200m (single turn) ➢ Transmitter – DRTX ➢ Sensor – 3-component B-field fluxgate magnetometer ➢ Receiver – SMARTem 24 ➢ Line Spacing – 200-400m ➢ Station Spacing – 100m

Criteria	JORC Code explanation	Commentary
	of accuracy (ie lack of bias) and precision have been established.	➢ Transmitter Frequency – 1Hz ➢ Current – 75A ➢ Stacks – 128 ➢ Readings – minimum 2 per station
Verification of sampling and assaying	• *The verification of significant intersections by either independent or alternative company personnel.* • *The use of twinned holes.* • *Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.* • *Discuss any adjustment to assay data.*	• The historic data cannot be verified and it has been collected from publicly available sources.
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 Resource estimation.* • *Specification of the grid system used.* • *Quality and adequacy of topographic control.*	• Some historic drillholes were reported on a local grid. Collars have been picked up using a handheld GPS and correlated with maps provided in reports.
Data spacing and distribution	• *Data spacing for reporting of Exploration Results.* • *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.* • *Whether sample compositing has been applied.*	• Holes were drilled at various spacing depending upon the holes drilled previously in the area of interest. • Hole spacing is appropriate for drilling at this early stage in the exploration process. • Sample compositing has been applied.
Orientation of data in relation to geological structure	• *Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.* • *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.*	• The historic data is a guide to future exploration and at face value has been collected in a manner that is sensible with respect to gross geological trends however more detailed interpretation would be required to assess this further.
Sample security	• *The measures taken to ensure sample security.*	• Due to the historic nature of the data presented, this cannot be determined.
Audits or reviews	• *The results of any audits or reviews of sampling techniques and data.*	• No external audits or reviews have been conducted apart from internal company review.

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Criteria	JORC Code explanation	Commentary

Section 2 Reporting of Exploration Results

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

Criteria	JORC Code explanation	Commentary
Mineral tenement 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 interests, historical sites, wilderness or national park and environmental settings.* • *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 tenements E38/2834, E38/2916, E38/3142 are owned by Regis Resources Limited (RRL) and tenements E38/3549, E38/3550 are owned by GCXplore Pty Ltd. Duketon Mining Limited have 100% of the nickel rights over the tenements. They are in good standing and there are no known impediments to obtaining a licence to operate in the area.
Exploration done by other parties	• *Acknowledgment and appraisal of exploration by other parties.*	• Previous drilling in this area was completed by Cominco, South Boulder Mines Ltd and Independence Group (IGO). • This work has been checked for quality as far as possible and formed the basis of the follow-up conducted as part of the drilling programme presented.
Geology	• *Deposit type, geological setting and style of mineralisation.*	• The anomalies presented in the historic data are sourced from typical Archaean Greenstone rocks of the Yilgarn Craton.
Drill hole Information	• *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:* ○ *easting and northing of the drill hole collar* ○ *elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar* ○ *dip and azimuth of the hole* ○ *down hole length and interception depth*	• Significant intercepts are provided in a table within the text of this announcement.

Criteria	JORC Code explanation	Commentary
	○ *hole length.*	
Data aggregation methods	• *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.* • *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.* • *The assumptions used for any reporting of metal equivalent values should be clearly stated.*	• No top-cuts have been applied when reporting results. • First assay from the interval in question is reported (i.e. Ni1) • Aggregate sample assays calculated using a length weighted average
Relationship between mineralisation widths and intercept lengths	• *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').*	• Mineralisation orientations have not been determined.
Diagrams	• *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 figures in document.
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.*	• All drillhole locations are reported and a table of significant intervals is provided in the release text.
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 contaminating substances.*	• Refer to document.
Further work	• *The nature and scale of planned further work (eg tests for lateral*	• Further work may involve drilling of holes, initially aircore and reverse

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	extensions or depth extensions or large-scale step-out drilling). • *Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.*	circulation (RC) and more ground geophysical surveys.