ALLOY
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Capital Structure

Alloy Resources Limited
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AYR

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Corporate Directory

Executive Chairman
Mr Andy Viner

Non-Exec Director
Mr Allan Kelly

Non-Exec Director/Co Sec
Mr Kevin Hart

Company Details

Email
info@alloyres.com

Website
www.alloyres.com

Principal Office
+61 (8) 9322 9903
Level 3, 35 Havelock St
West Perth WA 6005

Postal & Registered Office
+61 (8) 9316 9100
Suite 6, 7 The Esplanade
Mt Pleasant WA 6153

Big New Cobalt Targets From Ophara Soil Sampling

- **Extensive new Cobalt mineralisation trends defined by soil sampling over a 60 square kilometre area on the Ophara Project.**

- **Great Goulburn anomaly extended from 700m to over 3km**

- **Five new anomalies 2 km to 3 km long.**

- **Anomalies are open along strike to end of survey area.**

- **Infill and extension sampling to recommence shortly**

Summary

Australian Gold and Cobalt explorer **Alloy Resources Limited (ASX:AYR) (Alloy or the Company)** is pleased to announce that assays from a large soil sampling program at the Ophara Cobalt-Gold Project have now been received and interpreted.

The Ophara Project is located in the Broken Hill region of far west New South Wales in Australia. The project is adjacent to, and has the same geology as, the Thackaringa Cobalt deposit which has been defined by Cobalt Blue Holdings. Located 10 kilometres to the west is the Mutooroo copper-cobalt-gold project owned by Havilah Resources which also has similar geology to the Ophara project (Figure 1).

The program covered a 60 square kilometre area surrounding the known Great Goulburn cobalt-gold prospect and the aim was to define extensions and repetitions of the mineralisation. The area is generally covered in thin transported cover which has precluded geological mapping of mineralised trends which are inferred from aeromagnetics (Figure 2).

The program has been highly effective in defining a number of strongly anomalous zones within the survey area. The anomalies are extensive with individual trends being up to 3 kilometres in strike, and appear larger than the anomaly over Great Goulburn.

Executive Chairman Mr Andy Viner said " *We are very happy to say that it looks like the cobalt-gold mineralisation that outcropped at Great Goulburn is continuing under the soil cover over an extensive area. We believe there are extensions and repetitions of the mineralisation and infill sampling will quickly define new drill targets. Just as importantly the anomalies are not closed off and we have large areas of the project that now justify first pass soil sampling and there is a good chance we will locate more areas of mineralisation.*

The Company is planning to get personnel back into the field within the next two weeks to commence the infill sampling of the anomalies and inspection of any surface exposures of mineralisation. Details of this work will be defined and reported as it comes to hand.
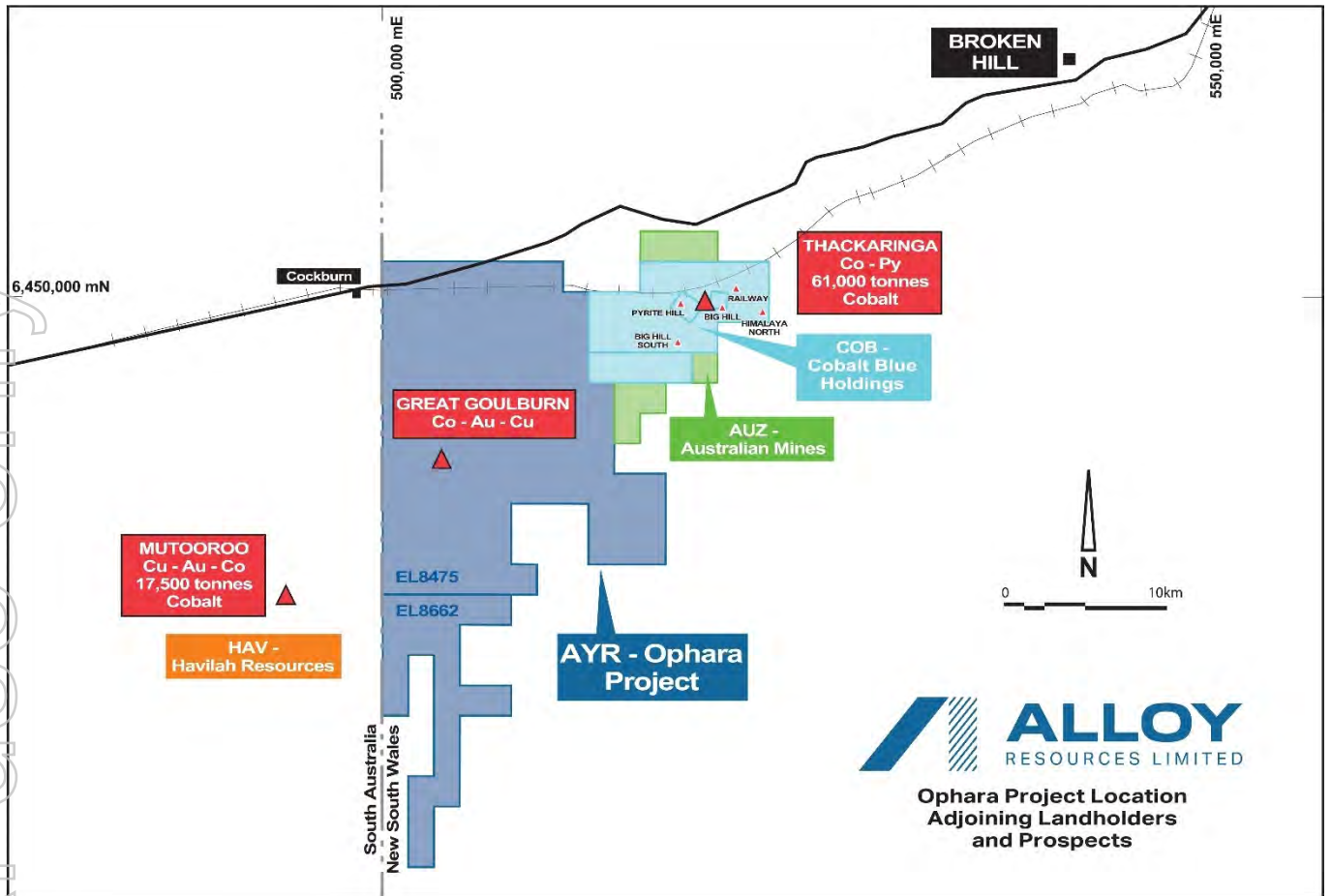
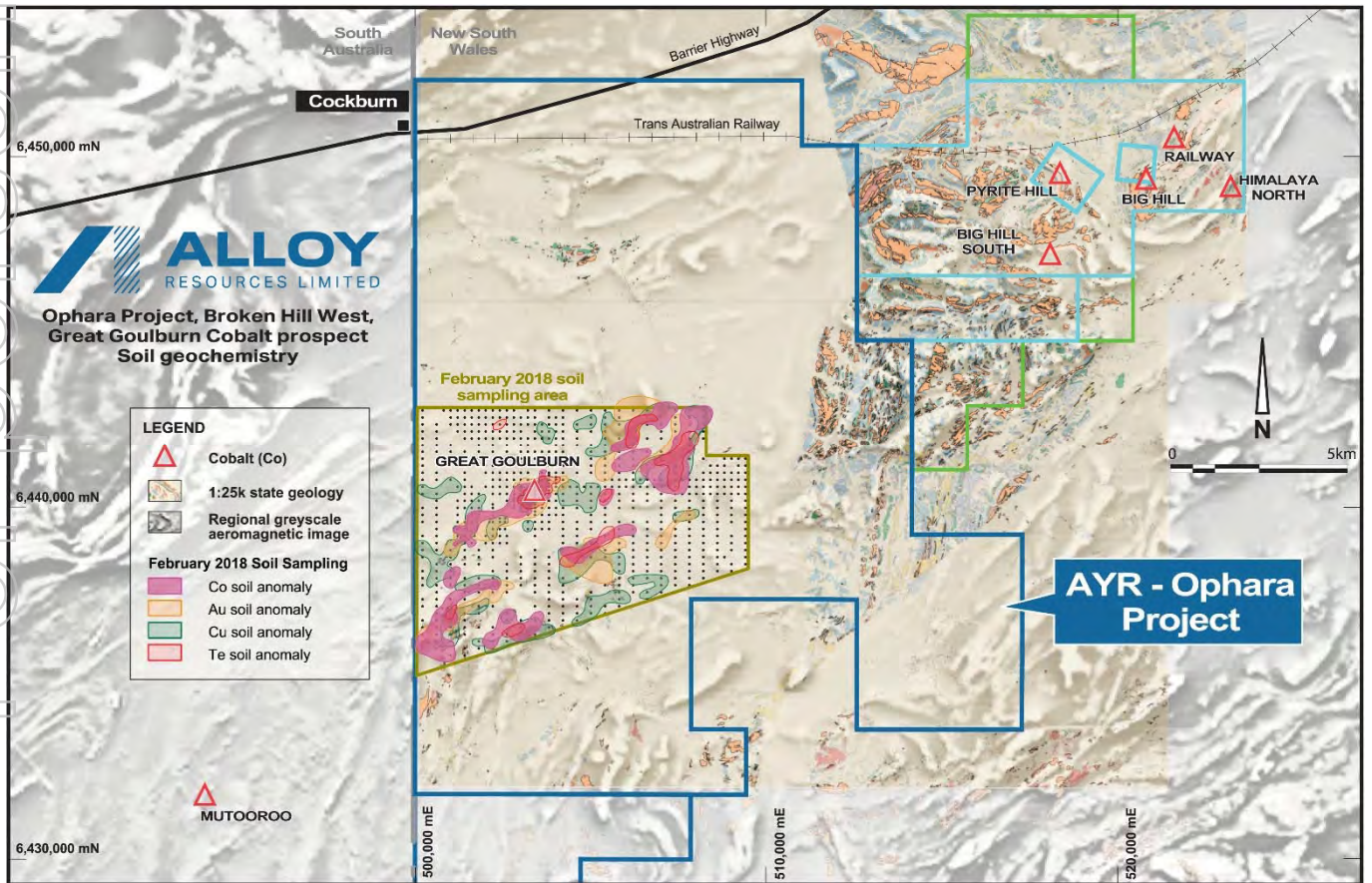**Figure 1**   *Regional location of Ophara Project near Broken Hill in far west NSW*

Figure 2   *Location of soil sampling area and anomalies on surface geology and aeromagnetic image*

Exploration Results

As previously reported a total of 792 soil samples were collected within a 60 km² area on a variable grid spacing including 200m x 100m around the Great Goulburn prospect, 400m x 200m more generally and some areas at 200m x 200m. Soil samples were submitted for low detection level analysis of 51 elements.

The Company has used the known pathfinder elements and geology associated with the Great Goulburn prospect to interpret anomalous trends of cobalt-gold within the assay results of the soil samples. An Independent Geochemist, Lulofs Management Services, analysed the data for statistically anomalous values and then contoured trends for elements which has been done with reference to any outcropping geology as well as magnetic rock units.

Figure 2 clearly shows the bulk of the Ophara project is masked by transported cover, particularly recent creek sediment and aeolian sand. Results have confirmed that Alloy's innovative use and interpretation of soil sampling has successfully detected mineralised trends in areas beneath shallow transported cover.

The generally broad spacing of sampling (200m x 400m and 200m x 200m) has worked remarkably well in defining coincident and coherent trends of anomalous geochemistry in soil including Co (>12ppm), Au (>4ppb), Cu (>30ppm) and Te (>32ppb) *as* shown in *Figure 3* below. The detailed sampling over the Great Goulburn prospect confirms that anomalies are not strong, even in good outcrop areas, so broader anomalies are highly significant and, if the regional anomalies defined by the 400m x 200m sampling were infilled to 200m x 100m (like the Great Goulburn area), they become quite significant.
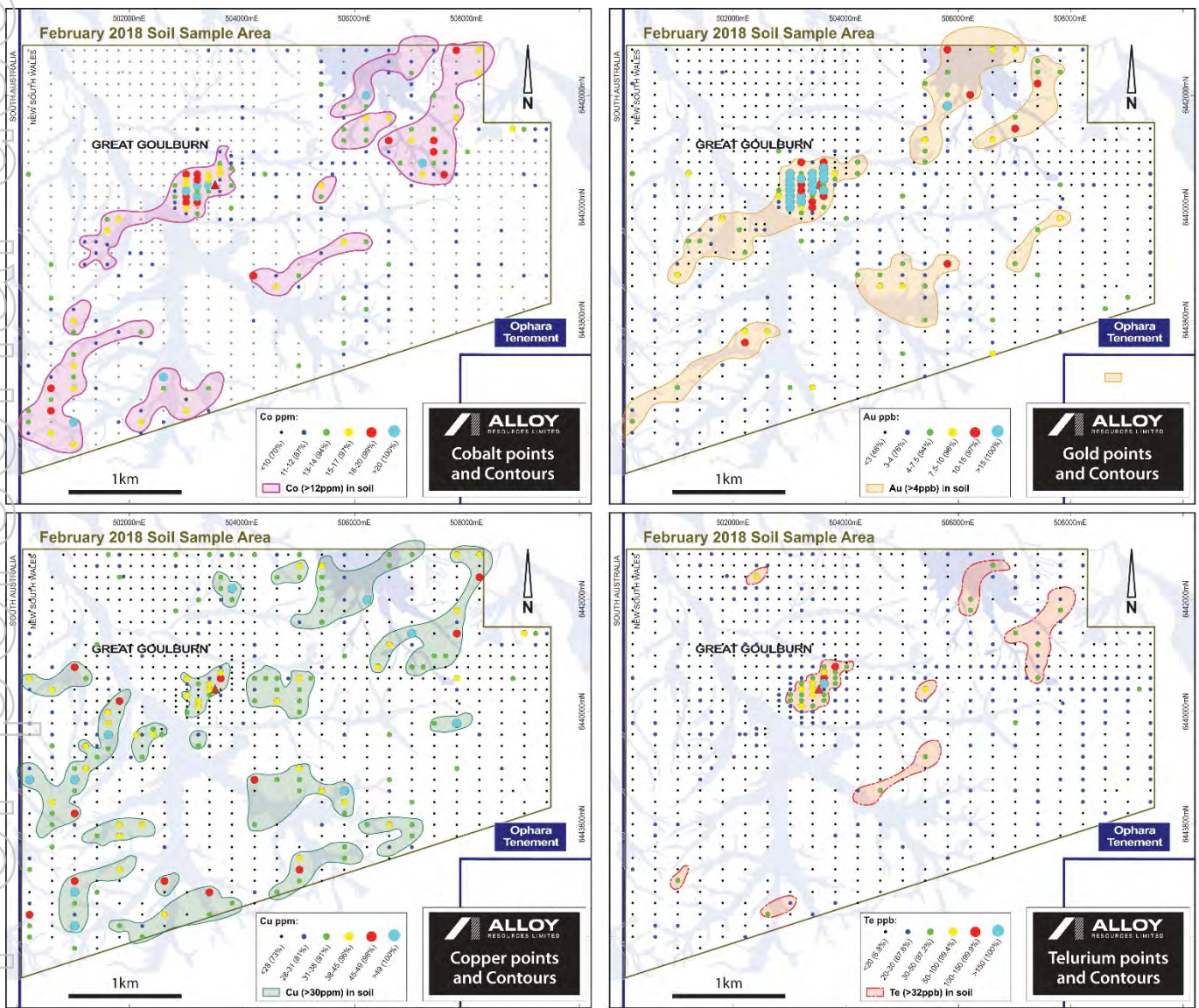

Figure 3   *Ophara soil sampling assays for four principal elements and interpreted anomalies*

There has been some mapped rock types called 'qf' for quartz-ironstone, and it is noted that these rock types are associated with the Great Goulburn mineralisation and also anomalies 2 and 5 on *Figure 4*. The anomalies broadly follow where these units are mapped offering a strong field target for infill soil and rock chip sampling to define early drill targets.
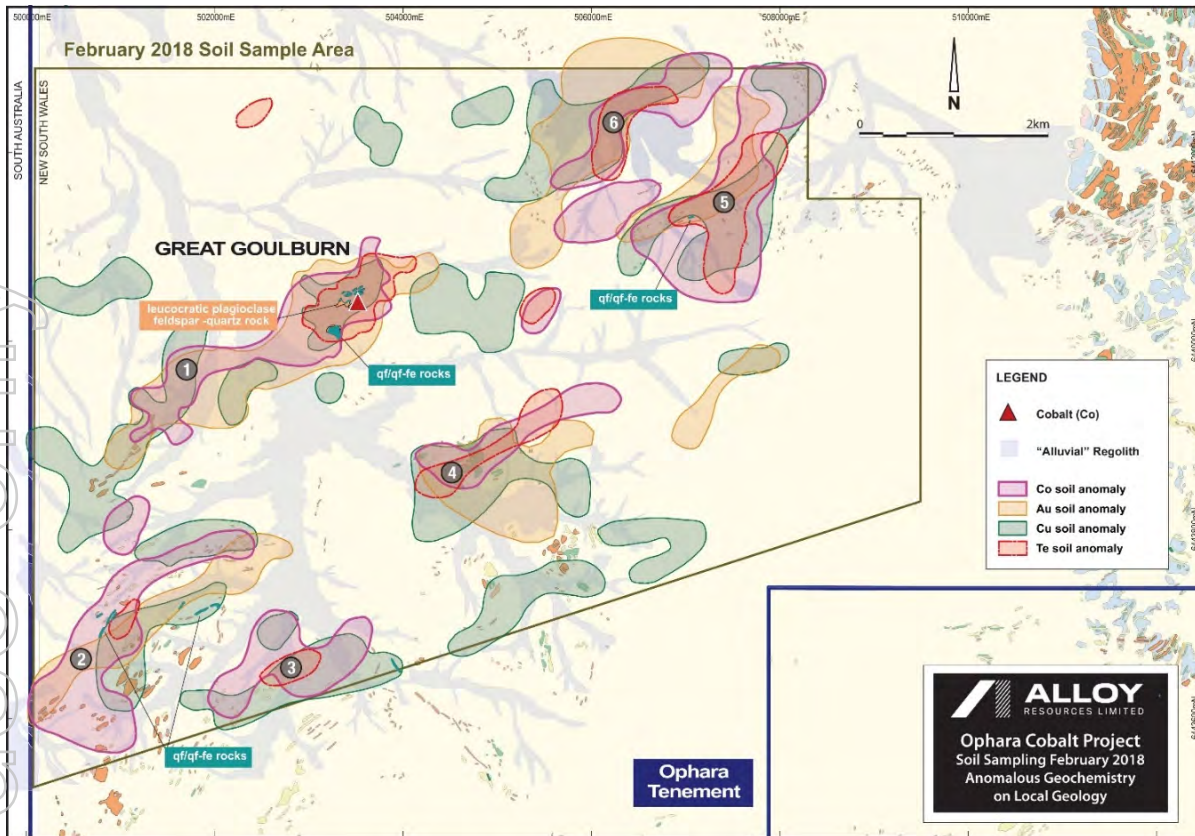
Figure 4 *Ophara soil sampling location showing anomalies on surface geology*

Where there is little or no outcrop an association between magnetic rock types and the anomalous trends is observable similar to that seen at Great Goulburn where a quartz-magnetite rock unit is the principle host to pyritic cobalt-gold mineralisation. *Figure 5* clearly shows an association with magnetic rocks at anomalies 2, 5 and 6. There is also some potential association at others. This gives extra confidence that the anomalies are likely to be of a style similar to Great Goulburn and hence contain cobalt-gold mineralisation.
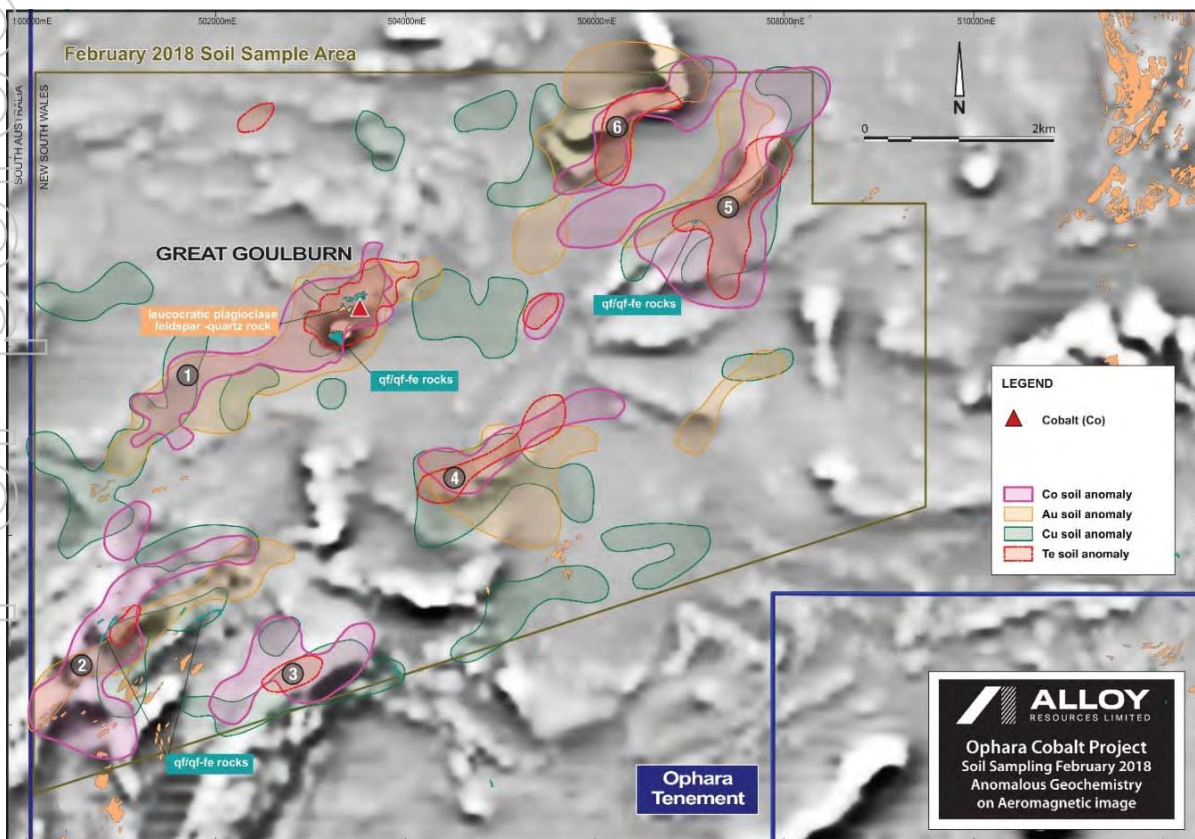

Figure 5 *Ophara soil sampling location showing anomalies on aeromagnetic image*

Planned Exploration

The Company will be returning to site within the next two weeks with a team to recommence infill sample of the existing anomalies at a spacing 200m x 100m.

A portable XRF machine will be trialled to see if this technique can define pathfinder elements quickly and refine the source position of the anomalies. It is likely that conventional soil samples will still be required to confirm the location of anomalies.

The field team will also look to locate and trace the mapped quartz-iron units that appear to be associated with the anomalies.

Full details of the program will be reported when finalised.

The aim of the follow-up sampling program is to define drill targets as quickly as possible.

For more information contact:

Andy Viner
Executive Chairman

Phone: +61 8 9322 9903
Or   +61 8 9316 9100

www.alloyres.com

Exploration Results

Information in this report which relates to Exploration Results is based on information compiled by Andrew Viner, a Director of Alloy Resources Limited and a Member of the Australasian Institute of Mining and Metallurgy, Mr Viner has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which they are 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." Mr Viner consents to the inclusion in the report of the matters based on this information in the form and context in which it appears. Mr Viner is a shareholder and option holder of Alloy Resources Limited

JORC Code 2012 Edition Summary (Table 1) – EL 8475 Ophara Prospect Soil Sampling February 2018

Section 1 Sampling Techniques and Data

(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.*	• Soil samples were collected over a 10 x 5km target area proximal to the Great Goulburn prospect. Samples were collected on a 100 x 200m grid within Great Goulburn prospect, 200 x 200m surrounding Great Goulburn Prospect and 400 x 200m grid in semi-regional areas of the survey. • The soil sampling program was specifically designed to avoid areas of transported cover (e.g. alluvium or aeolian sediments) likely to exceed 0.5m deep.
	• *Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.*	• Samples were collected from the top of the C-horizon, generally characterised by red-brown sub-angular blocky clay. • Sample depth ranged from 20 – 50cm. • 500 – 1000g of clay was sampled, gently pounded with hammer or pick to break up most fragments and then sieved to -2mm.
	• *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.*	• Soil samples were submitted to ALS in Orange in preparation for analysis. Samples were only sorted and dried. No pulverising or further sieving was requested prior to analysis. • All samples were forwarded to ALS in Brisbane for ME-TL43 analysis. • The analytical data reproduced was generated by ALS Minerals Laboratories using industry standard methods. • A 25g sample was subject to an Aqua Regia digestion with ICP-MS finish consisting of 51 elements.
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).*	• No drilling reported.
	• *Method of recording and assessing core and chip sample recoveries and results assessed.*	• No drilling reported.

Criteria	JORC Code explanation	Commentary
Drill sample recovery	• *Measures taken to maximise sample recovery and ensure representative nature of the samples.*	• No drilling reported.
	• *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.*	• No drilling reported.
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.*	• Basic description of the sampling location and soil sample was recorded in the field.
	• *Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.*	• All field descriptions are qualitative in nature.
	• *The total length and percentage of the relevant intersections logged.*	• No drilling reported.
Sub-sampling techniques and sample preparation	• *If core, whether cut or sawn and whether quarter, half or all core taken.*	• No core involved.
	• *If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.*	• No drilling reported.
	• *For all sample types, the nature, quality and appropriateness of the sample preparation technique.*	• In the field, soil samples were sampled with a shovel, gently pounded with hammer or pick to break up most fragments and sieved to -2mm. • At the laboratory, sample preparation only included sorting and drying. No pulverising or further sieving was requested prior to analysis.

	• *Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.*	• Field samplers were trained in best practice sampling techniques including:
		  o Avoiding contamination e.g. by cleaning sampling equipment between samples, avoid cross contamination between soil horizons and removing jewelery during sampling.
		  o Ensuring representivity of samples by taking several sub-samples at the base of hole, breaking up large soil fragments and sieving.
		• ALS adopts industry best practice to ensure there is no contamination during sample preparation. Field blanks were blindly inserted to monitor potential contamination within the laboratory.

	• *Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.*	• Field duplicates were collected (ratio of 3 per 100 samples) which consisted of a second sample, from a second hole in the same location (within 1m) and the same depth.
	• *Whether sample sizes are appropriate to the grain size of the material being sampled.*	• Sample size (0.5 – 1kg) was appropriate for grain size (-2mm) of sampled material and is accepted as general industry standard.

Criteria	JORC Code explanation	Commentary
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.*	• Aqua Regia is near-total digestion technique that is considered appropriate for detecting gold and base metals loosely bound in soil samples.
	• *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.*	• Not reported.
	• *Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.*	• Quality control procedures adopted the inclusion of QAQC samples including OREAS Standards (2 per 100 samples), Blanks (2 per 100 samples) and Field Duplicates (3 per 100 samples). • The laboratory analysed a range of internal and industry standards, blanks and duplicates as part of the analysis. All standards, blanks an duplicates were within acceptable levels of accuracy and precision.
Verification of sampling and assaying	• *The verification of significant intersections by either independent or alternative company personnel.*	• Due to the early stage of exploration and type of work completed to date, no verification of significant results has taken place at this time • Sampling was monitored by senior geological staff. Significant results were reviewed by senior geological staff and results obtained closely match historical sampling results by previous explorers (where the survey overlaps).
	• *The use of twinned holes.*	• No twinned holes have been drilled.
	• *Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.*	• Primary data has been recorded in Excel spreadsheets and hard copy log sheets in the field then imported to a digital database software package. • Photos of the sampling hole showing the soil profile have been taken at each sample point and digitally stored on the company server.
	• *Discuss any adjustment to assay data.*	• No adjustments made to assay data.
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.*	• Sample locations were recorded with a Garmin handheld GPS which has an expected relative accuracy of +/-5m.
	• *Specification of the grid system used.*	• Sample locations are located in MGA –GDA94 Zone 54.
	• *Quality and adequacy of topographic control.*	• Estimated RLs were measured with the GPS during the program and are considered sufficient for the work undertaken.
Data spacing and distribution	• *Data spacing for reporting of Exploration Results.*	• Samples were collected on a 100 x 200m grid within Great Goulburn prospect, 200 x 200m surrounding Great Goulburn Prospect and 400 x 200m grid in semi-regional areas of the survey.
	• *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.*	• The data spacing and distribution is not sufficient to establish the degree of geological and grade continuity appropriate for Mineral Resource estimation purposes.

Criteria	JORC Code explanation	Commentary
	• *Whether sample compositing has been applied.*	• Samples have not been composited.
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.*	• Based on the current information available at Ophara or as observed in the field, the sampling lines appear to be approximately perpendicular to the strike of the target mineralisation as defined by government mapping of outcrop and also trend of aeromagnetic anomalies related to stratigraphy.
	• *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.*	• No drilling reported. Refer previous ASX releases
Sample security	• *The measures taken to ensure sample security.*	• All samples were selected, bagged in tied numbered calico bags, loaded in to larger polyweave bags and cable tied. At the conclusion of the program, the polyweave bags were transported to Broken Hill, placed in pallet crates and transported overnight to a secure premises in Orange before delivery to ALS laboratory. This process was all done under the supervision of a senior geologist.
Audits or reviews	• *The results of any audits or reviews of sampling techniques and data.*	• No audits have been conducted at this stage.

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 Great Goulburn prospect is located within Exploration Licence 8475. Alloy has a 100% interest in the tenement. A land access agreement is current between Alloy and the holder/s of the Western Lands Lease.
Exploration done by other parties	• *Acknowledgment and appraisal of exploration by other parties.*	• Exploration prior to Alloy in the region was limited to occasional rock chip sampling, grid-based ground magnetic surveying and calcrete sampling, shallow RAB drilling and the drilling of four RC percussion and two cored holes, around the historic Great Goulburn workings. Some limited regional RAB drilling was completed. This early work was focused on gold and base metal exploration.
Geology	• *Deposit type, geological setting and style of mineralisation.*	• Great Goulburn is a metamorphosed quartz-magnetite hosted Au-Co-Cu deposit with similarities to the Mutooroo deposit a short distance to the west in South Australia and the Thackaringa cobalt-pyrite deposit 10 kilometres to the north-east.

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:*
	  o *easting and northing of the drill hole collar*
	  o *elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar*
	  o *dip and azimuth of the hole*
	  o *down hole length and interception depth*
	  o *hole length.*
	• *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.*
		• No drilling reported. Refer previous ASX releases

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.*	• No top-cuts have been applied when reporting results. • No metal equivalent values are used for reporting exploration results. • Soil geochemistry statistics and population breaks have been calculated using XLStat, Surfer and ArcGIS software. • Soil geochemistry has been gridded in Surfer software using 'minimum curvature' gridding. • Soil geochemistry has been contoured in Surfer software with

Criteria	JORC Code explanation	Commentary
	• *The assumptions used for any reporting of metal equivalent values should be clearly stated.*	manual validation according to geological and geophysical interpretation.
Relationship between mineralisation widths and intercept lengths	• *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').*	• No drilling reported. Refer previous ASX releases.
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 body of this announcement.
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.*	• No drilling reported. Refer previous ASX releases.
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.*	• All meaningful and material information has been included in the body of the text • Geochemical and geophysical surveys have been interpreted by expert Consultants in this field. • No metallurgical assessments have been completed at the date of this report.
Further work	• *The nature and scale of planned further work (eg tests for lateral 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.*	• The details of planned future exploration has not been defined at the time of this report. At a minimum soil anomalies will be inspected and some infill sampling and analysis undertaken.