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# Ophara Results Indicate Potential for Extensive Cobalt Mineralisation

- Results received from the final 9 holes of a 12 hole infill and extension drilling program at the Great Goulburn Prospect.
- Drilling returns more strong mineralisation:
  - AORC002 8 metres @ 0.14% Cobalt and 0.43 g/t Gold, from within 15m @ 0.12% Co and 0.30 g/t Au.
  - ➤ AORC008 3 metres @ 0.13% Cobalt and 0.37 g/t Gold, from within 8m @ 0.11% Co and 0.27 g/t Au, and a further 3 metres @ 0.12% Cobalt and 0.36 g/t Au.
- Mineralisation in new geological areas associated with quartz veining and associated pyrite which has similarities to the nearby Mutooroo deposit.
- Historical geophysical data indicates high probability of numerous and stronger sulphide conductors in the area.
- Exploration to focus on target definition around Great Goulburn, with planned aerial EM surveying and follow up drill testing of priority areas.

## **Summary**

Alloy Resources Limited (ASX: **AYR**, **Alloy** or the **Company**) is pleased to advise results from the recently completed RC drill program at the Ophara Project located 50 kilometres west of Broken Hill in New South Wales.

A 12 hole RC drill program on lines 100 metres apart for a total of 1,208 metres was designed to define the strike and depth potential of the known cobalt-gold mineralisation at the Great Goulburn prospect.

Results continue to indicate the potential for widespread gold-cobalt mineralisation within the Great Goulbourn Project area. Drilling has shown that mineralisation is strongest where a quartz magnetite unit is intersected by sulphide rich fluids, however there also appears to be quartz vein related mineralisation away from these units.

A continuing review of historical data has recently yielded aerial electromagnetic survey data from 1991 completed by BHP Minerals. The Great Goulburn prospect is only one anomaly amongst numerous within the area. There has been little or no drill testing of these other EM anomalies offering excellent targets for future exploration.

### Great Goulburn RC drill program

#### Drill hole locations

Drilling was planned to test the inferred quartz-magnetite geological host units to mineralisation. This interpretation was based on compilation of the historical geological mapping, rock chip sampling, geophysical surveys and six previous drill holes.

Figure 1 shows the location of holes and intersections from old holes and the nine recently assayed new holes. The base image is from Alloy's recent Ground magnetic survey where the brighter red-purple-white areas are highly magnetic and define the subsurface location of the prospective quartz-magnetite geological unit.

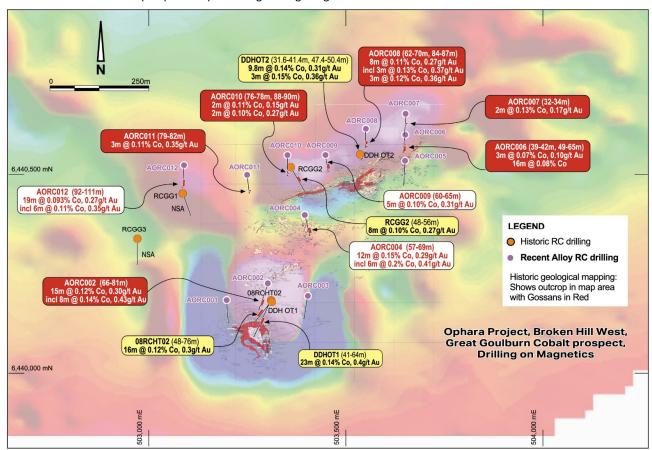


Figure 1 RC drill hole locations with assay intersections on an image of November 2016 ground magnetic survey.

#### Drill hole sample results

A total of 809 samples have been analysed for Gold, Cobalt, Copper, Lead, Zinc, Silver, Arsenic, Iron and Sulphur at a laboratory in Orange, New South Wales. This report is for the final 590 samples received, with the initial 219 already released to the market on 22 February 2017.

Significant results are shown below in Table 1.

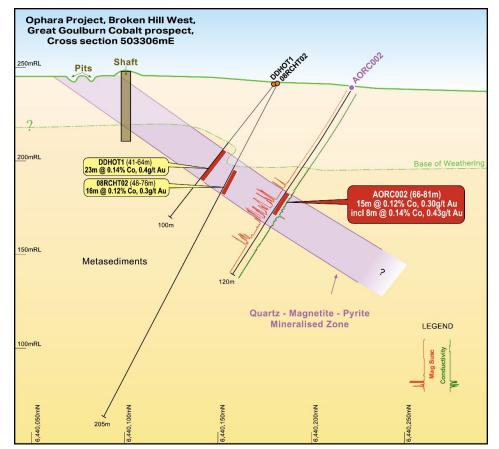
#### Geological Interpretation

Executive Chairman Mr Viner commented "Our interpretation has been greatly enhanced following this drill program. The results are telling us that we have a combination of strata-bound mineralised quartz-magnetite units, but also there are areas where mineralisation is more related to faults and quartz veins with sulphide. This combination is exciting as it is related to similar controls as seen at the Mutooroo deposit located 10 kilometres to the south west."

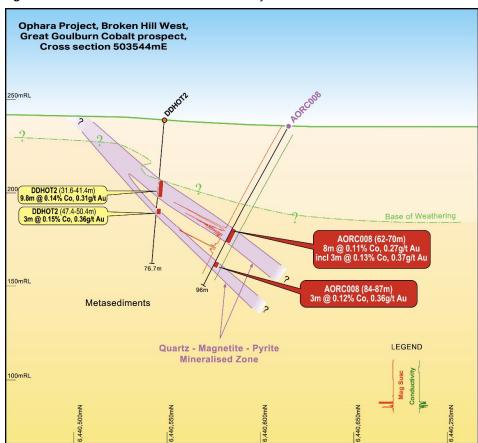
At Great Goulburn mineralisation has been shown to vary in strength both along strike and down dip, with pods of higher grade mineralisation focussed in certain areas such as fold hinges or adjacent to cross-cutting structures.

Figures 2 and 3 show cross-sections of stronger mineralisation.





**Figure 2** AORCO02 drill hole cross-section from Great Goulburn.



**Figure 3** AORCO08 drill hole cross-section from Great Goulburn.

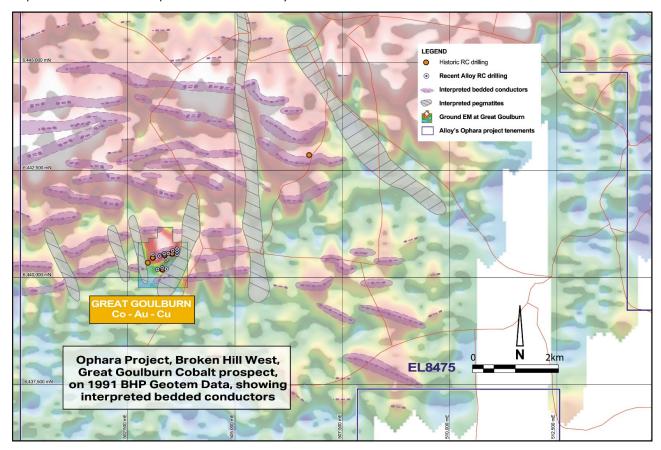
#### Other Exploration

The Company has continued to review all available historical data and has retained Consultants to assist with activities related to geophysical exploration data and interpretation. This has been successful in locating historical aeromagnetic and electromagnetic surveys.

Most recently the Company has obtained GEOTEM data flown by BHP in 1991 over the western half of the project. Importantly the Company already had a small Fixed Loop EM ground EM survey completed in 2001 for correlation with this bigger airborne survey.

Whilst the GEOTEM data is relatively coarse at 300 metre line spacing and less powerful and accurate compared to modern techniques, it does appear appropriate for locating conductors in this particular terrain, albeit with poor definition.

The Company believes it is clear that Great Goulburn does show up as a GEOTEM anomaly and by comparison to other anomalies in the area, suggests that there are distinct conductor trends both along strike and parallel to Great Goulburn (Figure 4). The relative merits of each anomaly is difficult to define from the data, however it is highly likely that extensive sulphide rich conductors are present under the mostly thin sand covered terrain.



**Figure 4** GEOTEM Channel 12 N shade Image with interpreted conductive units.

#### **Further Work**

The Company believes that the Great Goulburn Prospect has only advanced as a prospect because of some limited areas of outcrop of mineralisation that has been obvious to early explorers. This illustrates the great potential for location of extensive Cobalt-Gold-Copper mineralisation in the region under areas of cover.

Detailed aerial electromagnetic surveying offers an excellent technique to define new areas of Cobalt-Gold-Copper mineralisation. The Company is reviewing the cost and timing to complete a detailed new survey of approximately 500 line kilometres which would provide direct drill targets when combined with aeromagnetic anomalies.

Field checking of GEOTEM anomalies is warranted and some areas may be suitable for rock chip and/or soil sampling.

Following definition of co-incident EM-Magnetic targets, RAB drill testing will be the most effective way to define the areas of strongest Cobalt-Gold-Copper mineralisation.



#### **Andy Viner**

**Executive Chairman** 

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#### **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.



 $\textbf{Table 1} \quad \textit{Significant Mineralisation Intersections from last 9 RC drill holes at Great Goulburn}$ 

Hole No	Depth	Depth	Au	Со
	from	to	ppm	ppm
AORC002	66	67	0.15	1125
AORC002	67	68	0.15	1470
AORC002	68	69	0.13	691
AORC002	69	70	0.27	1045
AORC002	70	71	0.16	640
AORC002	71	72	0.11	523
AORC002	72	73	0.09	708
AORC002	73	74	0.43	1000
AORC002	74	75	0.7	2850
AORC002	75	76	0.41	624
AORC002	76	77	0.28	1375
AORC002	77	78	0.26	1200
AORC002	78	79	0.24	892
AORC002	79	80	1	1910
AORC002	80	81	0.12	1465
AORC002	85	86	0.15	941
AORC002	86	87	0.22	844
AORC005	89	90	0.12	393
AORC005	90	91	0.12	586
AORC005	91	92	0.34	1135
AORC005	92	93	0.15	810
AORC005	93	94	0.11	484
AORC005	97	98	0.12	359
AORC005	98	99	0.13	431
AORC005	99	100	0.18	624
AORC005	100	101	0.13	520
AORC005	101	102	0.16	640
AORC006	39	40	0.14	1025
AORC006	40	41	0.05	542
AORC006	41	42	0.11	1230
AORC006	49	50	0.07	756
AORC006	50	51	0.08	1085
AORC006	51	52	0.08	899
AORC006	52	53	0.21	1430
AORC006	53	54	0.05	930
AORC006	54	55	0.1	847
AORC006	55	56	0.05	827
AORC006	56	57	0.03	515
AORC006	57	58	0.05	520
AORC006	58	59	0.12	1100
AORC006	59	60	0.02	651
AORC006	60	61	-0.01	320
AORC006	61	62	0.01	661
AORC006	62	63	0.12	912

AODCOOC	(2)	CA	0.03	012
AORCO06	63	64	0.03	813
AORC006	64	65	0.02	586
AORC007	32	33	0.21	1560
AORC007	33	34	0.13	1020
AORC008	62	63	0.33	1045
AORC008	63	64	0.17	1190
AORC008	64	65	0.09	851
AORC008	65	66	0.15	663
AORC008	66	67	0.28	818
AORC008	67	68	0.28	1140
AORC008	68	69	0.44	1670
AORC008	69	70	0.38	1060
AORC008	73	74	0.07	948
AORC008	74	75	0.31	764
AORC008	75	76	0.19	1040
AORC008	82	83	0.17	1055
AORC008	83	84	0.07	371
AORC008	84	85	0.57	1580
AORC008	85	86	0.26	1165
AORC008	86	87	0.25	951
AORC010	76	77	0.15	1245
AORC010	77	78	0.15	993
AORC010	78	79	0.04	177
AORC010	79	80	0.38	754
AORC010	80	81	0.29	730
AORC010	87	88	0.08	729
AORC010	88	89	0.36	1080
AORC010	89	90	0.17	899
AORC010	90	91	0.14	408
AORC011	72	73	0.59	892
AORC011	73	74	0.15	667
AORC011	74	75	0.1	716
AORC011	75	76	0.22	343
AORC011	79	80	0.29	854
AORC011	80	81	0.55	821
AORC011	81	82	0.21	1755
AORC011	82	83	0.03	337
AORCO11	83	84	0.11	608
		_ ·	5.11	300

#### Notes:

- Greater than 0.1 g/t Au and/or 900ppm Co
- Maximum 2 metres internal dilution
- Hole survey locations in ASX release 2 February 2017



# JORC Code 2012 Edition Summary (Table 1) – EL 8475 Ophara Prospect RC Drilling January - February, 2017

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.	Reverse circulation (RC) percussion drill chips collected through a cyclone and riffle splitter at 1m intervals; assayed samples were at 1m intervals in logged mineralised zones and 4m speared composites elsewhere.
	Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.	<ul> <li>Splitter was cleaned regularly during drilling.</li> <li>Splitter was cleaned at the end of each hole.</li> </ul>
	Aspects of the determination of mineralisation that are Material to the Public Report.	Mineralisation determined qualitatively through rock type, sulphide, magnetite and quartz content and presence of alteration.     Mineralisation determined quantitatively via assay (four-acid digestion followed by ME-ICP61 for multi-element data, and 50g Fire Assay and AAS determination for gold
	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.	<ul> <li>RC samples pulverized to 85% -75 μm</li> <li>All samples analysed by four-acid digestion, followed by ICP for multi-element data and 50g Fire Assay and AAS determination for gold</li> </ul>
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).	132mm Reverse Circulation to a maximum vertical depth of ~110m.
Drill sample recovery	Method of recording and assessing core and chip sample recoveries and results assessed.	Sample recoveries were generally high, dropping to <50% in wet samples.
	Measures taken to maximise sample recovery and ensure representative nature of the samples.	RC Drilling: sample splitter was cleaned at the end of each rod to ensure no sample hang-ups have occurred. Assay sample weights are recorded and in general were approximately 2kg.

Criteria	JORC Code explanation	Commentary
		Wet samples due to excess ground water were noted when present.
	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.	As sample recoveries are generally high, there is no known relationship between sample recovery and grade.
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.	Holes logged to a level of detail to support future mineral resource estimation: lithology; alteration; mineralization; structural.
	Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.	<ul> <li>Qualitative: lithology, alteration, foliation</li> <li>Quantitative: vein quartz percentage; mineralization (sulphide) and magnetite percentage; assayed for gold;</li> <li>Standard reference chip samples collected at 1m intervals for all holes, and archived.</li> </ul>
	The total length and percentage of the relevant intersections logged.	All holes logged for the entire length of hole.
Sub-sampling techniques and	If core, whether cut or sawn and whether quarter, half or all core taken.	No core involved
sample preparation	If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.	RC chips riffle split, sampled dry where possible and wet when water flows encountered. Sample condition (wet, dry or damp) was recorded at the time of logging.
	For all sample types, the nature, quality and appropriateness of the sample preparation technique.	<ul> <li>The entire ~3kg RC sample was pulverized to 75μm (85% passing). This is considered best practice and is standard throughout the industry.</li> </ul>
	Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.	Pulp duplicates taken at the pulverising stage and selective repeats conducted at the laboratory's discretion.
	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.	Two duplicate samples per drill hole were inserted randomly in the sample stream.
	Whether sample sizes are appropriate to the grain size of the material being sampled.	Sample size was appropriate for grain size of sampled material.
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.	Fire assay and four-acid are total digestion techniques and are considered appropriate for gold and base metals.
	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.	Magnetic susceptibility measurements were taken continually downhole by a geophysical surveyor.

Criteria	JORC Code explanation	Commentary
	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.	<ul> <li>Certified reference material standards:2 per drillhole inserted randomly; in some holes a quartz sand blank was substituted for one of the CRMs.</li> <li>Blanks: One quartz sand blank per hole, inserted randomly.</li> <li>Lab: Random pulp duplicates are taken on average 1 in every 10 samples.</li> </ul>
Verification of sampling and	The verification of significant intersections by either independent or alternative company personnel.	Sampling was monitored by senior geological staff. Significant intersections were reviewed by senior geological staff.
assaying	The use of twinned holes.	No twinned holes were drilled during this drill program.
	Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.	A combination of logging on to Excel spreadsheets and hard copy logsheets in the field.
	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 downhole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.	<ul> <li>Collars: surveyed with Trimble DGPS with expected relative accuracy of approximately 20cms.</li> <li>Downhole: surveyed continuously with in-rod gyro tool.</li> </ul>
	Specification of the grid system used.	Holes are located in MGA Zone 54.
	Quality and adequacy of topographic control.	Estimated RLs were measured accurately with the DGPS during the programme.
Data spacing and distribution	Data spacing for reporting of Exploration Results.	Holes the subject of this announcement were drilled on a collar spacing of 50m or greater on section, with sections spaced 90 to 130m along strike.
	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.	Mineralisation at Ophara has not yet been demonstrated to be sufficient in both geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications to be applied.
	Whether sample compositing has been applied.	Samples taken on a 1m basis in logged mineralised zones, and 4m composites elsewhere.
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, the drill sections appear to be approximately perpendicular to the strike of the target mineralisation.
	• 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.	In general it is thought drilling is close to perpendicular to bedded mineralisation. There may be unknown fault or vein controls as well.
Sample security	The measures taken to ensure sample security.	All samples were selected, cut and bagged in tied numbered calico bags, loaded in to larger polyweave bags and cable tied. At the conclusion of the programme, the polyweave bags were transported to Broken Hill, placed in pallet crates and transported overnight to RME's secure premises in Orange.

Criteria	JORC Code explanation	Commentary
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	<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>	The Ophara 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 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 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. This early work was focused on gold and base metal exploration.
Geology	Deposit type, geological setting and style of mineralisation.	Ophara is a metamorphosed quartz-magnetite hosted Au-Co-Cu deposit with similarities to the Muturoo deposit a short distance to the west in South Australia.
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>	Refer to tabulations in the body of this announcement and previous releases by Alloy Resources during 2016 and 2017.
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> </ul>	<ul> <li>No top-cuts have been applied when reporting results.</li> <li>The intervals referred to in this announcement are taken as values &gt; 0.1g/t Au, &gt; 900ppm Co and with a maximum 2m internal dilution.</li> <li>No metal equivalent values are used for reporting exploration results.</li> </ul>

Criteria	JORC Code explanation	Commentary
	The assumptions used for any reporting of metal equivalent values should be clearly stated.	
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>	Broad geological and mineralisation features have been interpreted from generally wide spaced drilling sections. Based on the current information at Ophara, the sections presented here appear to be approximately perpendicular to the strike of the target structure, therefore true widths may potentially be inferred from the sections.
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.	All significant intercepts and a summary of drill hole assay information are presented in this announcement. Representative higher grade intervals have been presented in the section and plan.
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.	<ul> <li>All meaningful and material information has been included in the body of the text</li> <li>Geophysical surveys have been interpreted by expert Consultants in this field</li> <li>No metallurgical assessments have been completed at the date of this report.</li> </ul>
Further work	<ul> <li>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out 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>	The company is continuing to review past and current results before defining exact exploration plans, as mentioned in this report.