



Adelaide Resources Limited
ABN: 75 061 503 375

Corporate details:

ASX Code: ADN
Cash: ~\$0.68 million
(at 30 September 2016)
Issued Capital:
405,767,063 ordinary shares

Directors:

Colin G Jackson
Non-Executive Chairman

Chris Drown
Managing Director

Nick Harding
Executive Director and
Company Secretary

Jonathan Buckley
Non-Executive Director

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Fact:

The historical high grade Hatches Creek tungsten deposit is located 60km northwest of EL31211. Mining undertaken at Hatches Creek between 1915 and 1957 produced an estimated 2,840 tonnes of tungsten concentrates with a grade of 65% WO₃.



ASX announcement

29 November 2016

Davenport Ranges project (100% owned), Northern Territory

Significant tungsten rock chip results

Summary

Ore grade tungsten values up to 1.41% WO₃ have been recorded in a preliminary low impact rock chip sampling programme on exploration licence application EL31211 "Newlands Creek", which covers an area of 540 km² in the Davenport Province in the Northern Territory.

- The exploration licence application was lodged to secure ground that showed potential to host hard rock lithium-tungsten-tantalum-niobium mineralisation.
- No lithium is present in the rock chip samples, however significant tungsten mineralisation occurs in an outcropping shear hosted quartz-tourmaline-tungsten-tantalum vein at the Juggler prospect.
- The outcropping vein trends northwest, is up to 1 metre wide, and persists for over 50 metres before disappearing beneath colluvial cover to the southeast and soil cover to the northwest.
- Anomalous tantalum and niobium are also present, reaching maximums of 54ppm and 100ppm respectively.
- A trial FPXRF soil survey found anomalous tungsten coincident with the vein outcrop, suggesting this low cost method can be used effectively as an exploration tool.
- Whether the Company pursues this opportunity in its own right or with a qualified partner is yet to be determined.

Chris Drown
Managing Director

Direct enquiries to Chris Drown. Ph (08) 8271 0600 or 0427 770 653.

Introduction

The Company applied for EL31211 “Newlands Creek” in the Davenport Ranges area of the Northern Territory earlier in 2016. The tenement is wholly owned by an Adelaide Resources’ subsidiary company and covers an area of 540km².

The tenement application was pegged in response to a study by the Northern Territory Geological Survey (NTGS) which identified the historical Juggler and Trew Creek tungsten-tantalum-niobium occurrences in the region (Figure 1). Tungsten, tantalum and niobium are metals that commonly accompany hard rock lithium mineralisation.

The Juggler prospect is described by the NTGS as a small abandoned tungsten-tantalum mine where mineralisation occurs in narrow quartz-tourmaline-muscovite veins hosted in pegmatite. The pegmatites at Juggler are likely genetically associated with the Elkedra Granite which crops out in the southern part of EL31211.

The Trew Creek prospect is described as a small eluvial tantalite deposit derived from the weathering of an east-west trending shear zone controlled quartz vein.

Preliminary exploration results

The Northern Territory Mining Act (2010) includes provisions allowing the completion of “preliminary exploration”, being limited low impact exploration activities such as rock chip and soil sampling, prior to tenement grant.

Accordingly, the Company completed a modest programme of rock chip and Field Portable X Ray Fluorescence (FPXRF) soil sampling to confirm if the target metals were present before advancing the tenement application.

A total of 26 rock chip samples and 63 FPXRF soil analyses were taken at five targets, including Juggler and Trew Creek, across the central portion of the tenement (Figure 2).

Significant tungsten, tantalum, niobium, bismuth and molybdenum were recorded in samples taken from quartz-tourmaline veins at Juggler, reaching maximums of 1.41% WO₃, 53.9ppm Ta, 100ppm Nb, 262ppm Bi and 2340ppm Mo respectively (Table 1 and Figure 3). No significant lithium is present in the assayed samples.

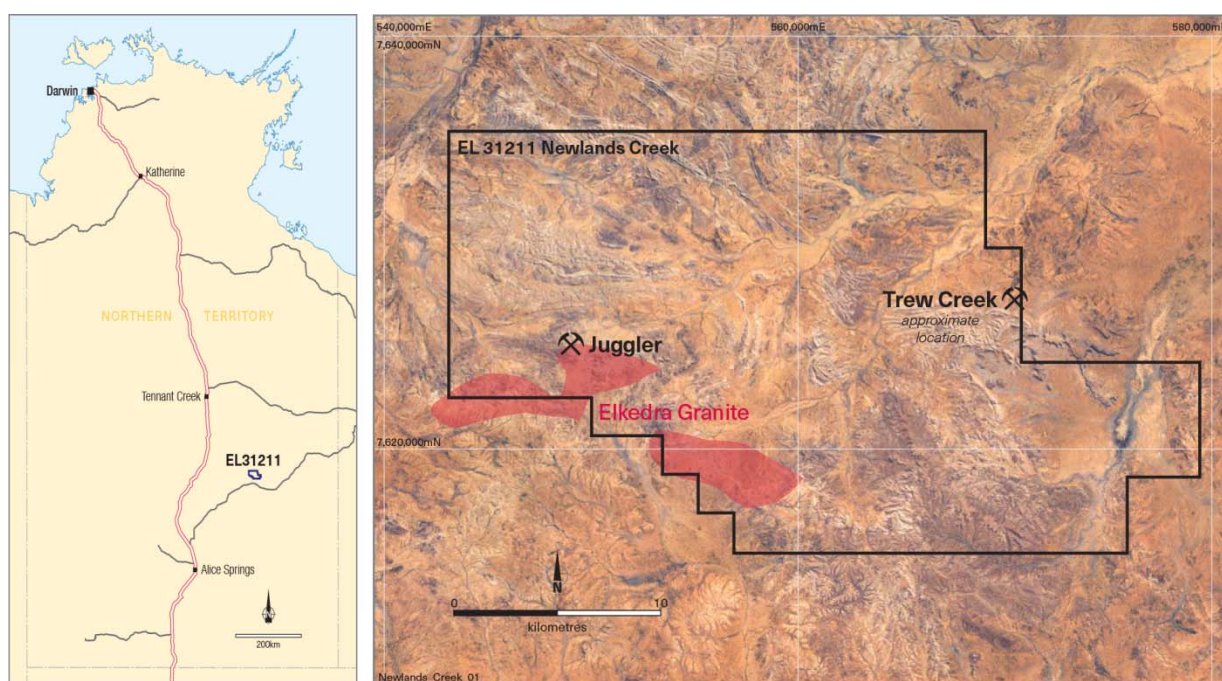


Figure 1: EL31211 “Newlands Creek” location plan

For reference, WO_3 grades in excess of around 0.2% (2000ppm) are considered to be potentially of ore grade.

FPXRF soil analyses at Juggler also recorded anomalous tungsten, tantalum, niobium, and bismuth, confirming the technique can be effectively employed in future exploration.

Next steps

Based on the positive tungsten results, the Company will progress EL31211 to grant. Future on-ground exploration is expected to comprise geological mapping, low cost FPXRF soil surveying, and rock chip sampling concentrating on outcropping veins and pegmatites associated with the Elkedra Granite and specifically the Juggler prospect.

Whether the Company pursues this opportunity in its own right or with a qualified partner is yet to be determined.

About Tungsten

Tungsten is a greyish-white lustrous metal that has the highest melting point and lowest vapor pressure of all metals, and at

temperatures over 1650°C has the highest tensile strength. It has excellent corrosion resistance.

The tungsten market has a number of primary end users with the main sectors comprising hard metals (56%), mill products (17%), steel and alloys (20%) and other uses such as light bulb filaments (7%). Global tungsten consumption is approximately 100,000 tonnes per annum.

Mined tungsten is sold as 65% WO_3 concentrates and represents 70-80% of global supply, with the balance coming from scrap recycling. Currently 65% WO_3 concentrates are selling for around A\$13,500/tonne.

The global market is dominated by China, which produces ~80% of the world's mined tungsten and has restricted exports of unprocessed tungsten. The Chinese export policy has in part led to the current strong demand for tungsten concentrates.

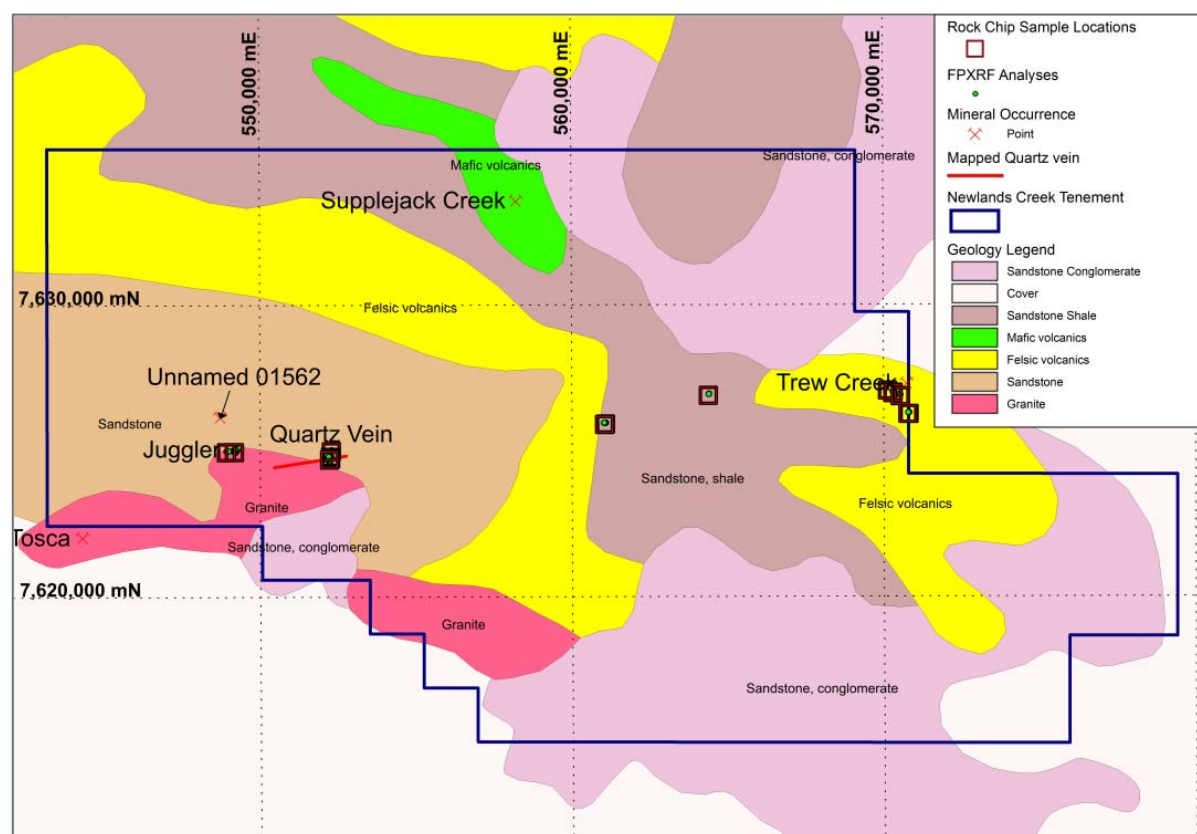


Figure 2: Rock chip sample points and FPXRF analysis sites



Figure 3: Juggler workings looking south east.

Table 1: Newlands Creek reconnaissance rock chip results

Prospect	Sample No.	Easting MGA94 Z53	Northing MGA94 Z53	WO ₃ ppm	Ta ppm	Nb ppm	Bi ppm	Mo ppm	Sn ppm	Li ppm
Trew Creek	DR005	570180	7627090	<0.5	<0.1	<0.5	0.1	1.0	1.0	<10
Trew Creek	DR006	570185	7627095	<0.5	<0.1	<0.5	<0.1	<0.5	0.2	<10
Trew Creek	DR007	570785	7626296	<0.5	<0.1	<0.5	<0.1	<0.5	0.2	<10
Trew Creek	DR008	570815	7626302	<0.5	<0.1	<0.5	<0.1	1.0	0.2	<10
Trew Creek	DR009	570280	7627020	<0.5	<0.1	<0.5	<0.1	<0.5	0.5	<10
Trew Creek	DR010	570282	7627018	1	<0.1	1.0	0.3	1.0	0.4	<10
Trew Creek	DR011	570284	7627016	1	0.1	3.0	0.2	1.0	1.2	<10
Trew Creek	DR012	570286	7627014	<0.5	<0.1	<0.5	<0.1	1.0	0.3	<10
Trew Creek	DR013	570288	7627012	<0.5	<0.1	1.0	0.4	1.0	0.4	<10
Trew Creek	DR014	570510	7626910	<0.5	<0.1	<0.5	<0.1	<0.5	0.2	<10
Quartzite QV	DR015	564395	7626940	<0.5	<0.1	1.5	<0.1	<0.5	0.4	10
Gossan	DR016	561083	7625958	2	<0.1	2.5	1.0	6.5	1.2	<10
Gossan	DR017	561045	7625947	3	<0.1	3.5	0.7	3.0	1.9	<10
Gossan	DR018	561046	7625946	<0.5	<0.1	1.0	0.2	1.5	0.2	<10
Colloform Qtz Vein	DR019	552296	7625035	1	0.2	2.0	0.5	1.0	0.8	130
Colloform Qtz Vein	DR020	552221	7624774	4	3.1	8.0	1.9	1.0	4.4	120
Colloform Qtz Vein	DR021	552225	7624759	6	3.3	9.5	1.9	<0.5	5.9	110
Colloform Qtz Vein	DR022	552224	7624742	4	1.9	5.5	0.5	1.0	3.0	150
Colloform Qtz Vein	DR023	552207	7624722	4	2.3	7.0	0.5	1.0	3.4	180
Juggler	DR024	548927	7625013	42	53.9	98.0	0.4	1.0	5.4	40
Juggler	DR025	549171	7625023	4297	23.6	100.0	262.0	18.0	4.9	40
Juggler	DR026	549174	7625023	14112	5.5	13.0	257.0	2340.0	23.7	40
Juggler	DR027	549175	7625024	1575	20.8	49.0	39.1	16.0	12.8	30
Juggler	DR028	549175	7625024	3654	17.2	64.0	56.0	352.0	15.9	30
Juggler	DR029	549175	7625024	378	6.0	14.0	26.4	4.0	9.7	20
Juggler	DR030	549175	7625024	2003	22.2	40.5	14.6	33.0	18.5	40

Assaying by multi acid digest followed by ICP-AES and ICP-MS determination.

Introduced blanks, standards and duplicates indicate acceptable analytical quality.

Competent Person Statement

The information in this report that relates to Exploration Targets, Exploration Results, Mineral Resources or Ore Reserves is based on information compiled by Chris Drown, a Competent Person, who is a Member of The Australasian Institute of Mining and Metallurgy. Mr Drown is employed by Drown Geological Services Pty Ltd and consults to the Company on a full time basis. Mr Drown has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken 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 Drown consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

Forward-Looking Statements

This ASX release may include forward-looking statements concerning Adelaide Resources Limited. Forward-looking statements are not statements of historical fact and actual events and results may differ materially from those described in the forward looking statements as a result of a variety of risks, uncertainties and other factors. Forward-looking statements are inherently subject to business, economic, competitive, political and social uncertainties and contingencies. Many factors could cause the Company's actual results to differ materially from those expressed or implied in any forward- looking information provided by the Company, or on behalf of, the Company. Such factors include, among other things, risks relating to additional funding requirements, metal prices, exploration, development and operating risks, competition, production risks, regulatory restrictions, including environmental regulation and liability and potential title disputes. Forward looking statements in this document are based on Adelaide Resources' beliefs, opinions and estimates of Adelaide Resources as of the dates the forward looking statements are made, and no obligation is assumed to update forward looking statements if these beliefs, opinions and estimates should change or to reflect other future development

1 JORC CODE, 2012 EDITION – TABLE 1

1.1 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 hand held 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.	• Rock chip samples were collected on an opportunistic basis from outcropping veins displaying multi-component mineralogy and from the dominant quartz vein and granite host rocks. • By their nature rock chip samples are not considered to be samples of high representivity. • A hand-held Innov-X FPXRF (Olympus) analyser was used to obtain surficial in situ soil analysis. • No sample preparation of the soils was completed. • Instrument calibration completed on on-going basis during survey using standardisation discs.
Drilling Techniques	• Drill type (air core, reverse circulation, open-hole hammer, rotary air blast , auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube,	• No drilling results are reported.

	<i>depth of diamond tails, face sampling bit or other type, whether core is orientated and if so, by what method, etc).</i>	
<i>Drill Sample Recovery</i>	• Method of recording and assessing core and chip sample recoveries and results assessed. • Measures taken to maximise sample recovery and ensure representative nature of the sample. • Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of coarse/fine material.	• No drilling results are reported.
<i>Logging</i>	• 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.	• No drilling results are reported.
<i>Sub-sampling techniques and sample preparation</i>	• 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.	• Sample preparation for the rock chips included crushing and pulverising by the analytical laboratory, which is the standard preparation used for rock chip samples. • The sample sizes are considered appropriate for the target metals sought. • Sample points were located using a GPS with an estimated accuracy of +/- 5 metres. • No sample preparation was completed for the FPXRF as analysis was conducted on in-situ soil material. • Duplicate analyses indicate acceptable analytical accuracy.
<i>Quality of assay data and laboratory tests</i>	• 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 mode, reading times, calibration factors applied and their derivation, etc. • Nature and 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.	• Rock chips were assayed in a commercial lab using standard methods. • The samples have been digested and refluxed with a mixture of Acids, including: Hydrofluoric, Nitric, Hydrochloric and Perchloric Acids. • Lithium have been determined by Inductively Coupled Plasma (ICP) Optical Emission Spectrometry • Bi,Mo,Nb,Sn,Ta,W,were determined by Inductively Coupled Plasma (ICP) Mass Spectrometry. • Company and laboratory QA/QC samples were introduced into the rock chip assay stream. • No calibration factors have been applied to results reported.

		• XRF is a total analytical technique appropriate for W as natural soil concentrations are above the lower detection limit of the instrument. • Olympus Innov-X 4000 with reading times set at 90 seconds. • QAQC data includes standards, blanks and duplicates introduced at a ratio of 1 QAQC sample for every 40 survey samples. • No calibration factors have been applied.
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 or electronic) protocols. • Discuss any adjustment to assay data.	• No drilling results are included in the report. • Tungsten results were reported by the lab as W. These have been converted to WO₃ to match normal reporting convention.
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.	• The locations of the Juggler and Trew Creek prospects shown on Figure 1 of the report are taken from the NTGS Strike website. • The location of Juggler and Trew Creek was verified by site observation. • Rock chip sample and FPXRF analysis points were collected using a GPS with an accuracy of +/- 5 metres. • GDA94 (Zone 53)
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 classification applied. • Whether sample compositing has been applied.	• The rock chip samples were collected on an opportunistic basis. The data is not appropriate for use in estimating a Mineral Resource and is not intended for such use.
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 rock chip samples were collected on an opportunistic basis and it is unknown if this results in biased or unbiased sampling. • The FPXRF analyses were taken around the rock chip samples.
Sample security	• The measures taken to ensure sample security.	• The rock chip samples were collected by ADN staff, then packaged and delivered to ADN's Adelaide Office by courier and from there taken to the laboratory by ADN staff. • FPXRF readings are made in-situ. No sample is collected.
Audits or reviews	• The results of any audits or reviews of sampling techniques and data	• No audits or reviews of past sampling techniques have been completed.

1.2 Section 2 Reporting of Exploration Results

(Criteria listed in the preceding section may apply to this section)

Criteria	JORC Code explanation	Commentary
<i>Mineral tenement and land tenure status</i>	- Type, reference name/number, location and ownership including agreements of material issues with third parties such as joint ventures, overriding royalties, native titles 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 license to operate in the area.	- The area the subject of this report falls within EL31211, a tenement application owned 100% by Peninsula Resources Ltd, a wholly owned subsidiary of Adelaide Resources Limited. - There are no third party agreements, non govt royalties, or historical sites known on EL31211. Underlying land title is Pastoral leasehold. The area is affected by Determined Native Title Claim DCD2014-010. - A site of conservation significance covers the Davenport and Murchison Ranges including the majority of the area held under EL31211.
<i>Exploration done by other parties</i>	Acknowledgement and appraisal of exploration by other parties.	The general EL31211 area has been explored in the past by Rosequartz Mining NL, Carpentaria Gold Pty Ltd, Rum Jungle Resources Ltd, Arafura Resources and NuPower Resources. Rosequartz Mining focused on a turquoise prospect located outside EL31211. Carpentaria Gold completed a stream sediment survey targeting gold and base metals. Rum Jungle Resources targeted rock phosphate in the Wiso-Georgina Basins. Arafura Resources and NuPower Resources both visited the Trew Creek prospect and deemed it too small to warrant exploration, but did not assess its lithium potential.
<i>Geology</i>	Deposit type, geological setting and style of mineralisation.	Tungsten deposits in the area are likely to be hosted in quartz veins which in turn are possibly associated with the Elkedra Granite.
<i>Drill hole Information</i>	A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:	No drilling results are reported.

	○ Easting and northing of the drill collar ○ Elevation or RL (Reduced Level – elevation above sea level in meters) of the drill collar. ○ Dip and azimuth of the hole. ○ Down hole length and interception depth. ○ Hole length. ● If the exclusion of this information is justified on the axis 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.	
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 some detail. ● The assumptions used for any reporting of metal equivalent values should be clearly stated.	● No drilling results are reported.
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 results are reported.
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.	● Appropriate location plans are included as Figures 1 & 2 in the report.
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 rock chips assays are shown in Table 1.
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, ground water, geotechnical and rock characteristics; potential deleterious or contaminating substances.	● There is no other known exploration data that is considered material to the report.
Further work	● The nature and scale of planned further work (eg tests of 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 report advises that the company is planning to progress the tenement application to grant.