

# DIAMOND DRILLING OF HIGH-PRIORITY EM TARGET COMMENCES AT NEPEAN

# **Highlights**

- High-powered ground Moving-Loop Electromagnetic (**MLEM**) survey has identified a discrete bedrock conductor approximately 1 km south of the historic high-grade Nepean nickel mine
- The 4,000 8,000S conductor is typical of massive sulphides and sits 250m below surface, representing a high-priority drill target
- Diamond rig has arrived on-site and drilling will commence immediately to test the modelled conductor
- MLEM survey is ongoing as per scheduled and will be completed within the next two weeks

Auroch Minerals Limited (ASX:AOU) (Auroch or the Company) is pleased to report that the high-powered ground MLEM survey initiated last week has successfully identified a significant conductor at the Nepean Nickel Project (Nepean), located 25km south of Coolgardie, in Western Australia. The project is operated under the Company's 80:20 JV agreement with Lodestar Minerals Ltd (ASX:LSR).

The conductor has been modelled at 250m below the surface, about 1km to the south of the historic high-grade Nepean nickel mine. The moderate-high strength of the modelled conductor is in the range of 4,000 - 8,000S which is typical of conductive bodies such as semi-massive and massive sulphide mineralisation.

The modelled conductor is located in an area that has been poorly tested by drilling at depth; however, a historic drill-hole (ND051) 50m to the north intercepted disseminated nickel sulphides within an ultramafic unit, which adds further support to the potential that the conductive plate may represent significant nickel sulphide mineralisation.

The Company will immediately test this high-potential target with diamond drilling, commencing with a 350 - 400m drill-hole designed to intercept the modelled conductive plate at a down-hole depth of ~290 - 300m. The hole will be drilled to approximately 50m past the basal footwall contact with the underlying basalt unit, in order to provide an adequate depth for follow-up down-hole EM (**DHEM**) surveys to test for extensions and/or additional conductive bodies at depth.

#### **Auroch Managing Director Aidan Platel commented:**

"The effectiveness of the ground MLEM survey in detecting such a quality high-potential drill target so early in the survey has exceeded all expectations. Given the lack of historical drilling along the 10km of potential strike from the high-grade Nepean nickel mine, we have always believed that the systematic application of modern geophysical and exploration techniques would have great potential to lead to significant new nickel sulphide discoveries.

As such, the identified EM conductor is a compelling drill target for us and will be tested immediately with a diamond drill programme. Parallel to this, the MLEM survey will continue as scheduled over the critical areas of the Nepean strike, and will be completed within the next fortnight. We look forward to seeing what other conductive bodies it may uncover."





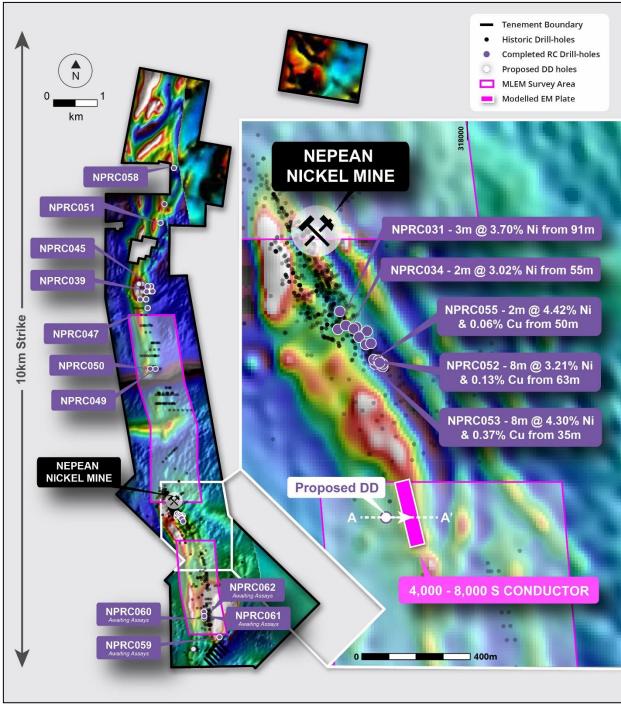


Figure 1 - Plan map of the Nepean Nickel Project showing EM conductor relative to aeromagnetics to the south of the historic Nepean nickel mine

### **Exploration Update**

Nickel sulphide exploration work programmes scheduled for the next 4 – 6 weeks include the following:

- High-powered ground MLEM survey to test critical areas of the 10km of prospective strike of the Nepean ultramafics - underway
- Diamond drill programme testing high-priority EM targets underway
- Second phase of RC drilling to test geochemical and geophysical targets along the Nepean strike - commencing late May - June









- Diamond drill programme at the Woodwind and Percussion Prospects of the Leinster Nickel Project - underway
- DHEM surveys of completed diamond drill-holes at Woodwind & Percussion in Leinster underway
- RC drill programme at the Woodwind, String, Brass and Firefly Prospects of the Leinster Nickel Project - commencing mid-May

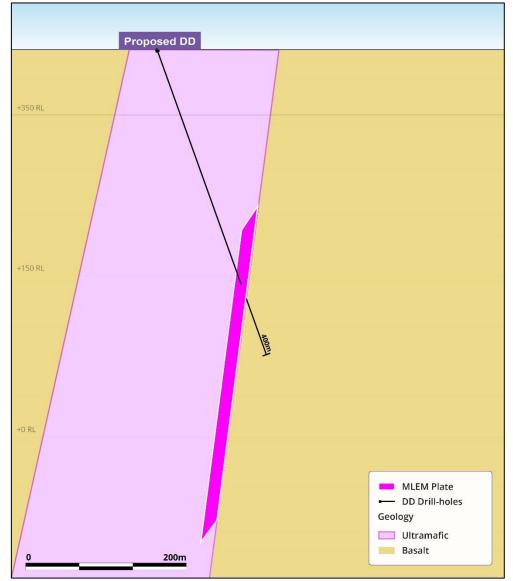


Figure 2 - Cross-section A - A' (see Figure 1) showing proposed diamond drill-hole and EM conductor in relation to the modelled ultramafic unit and interpreted footwall contact

This announcement has been authorised by the Board of Directors of the Company.

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For further information visit <a href="www.aurochminerals.com">www.aurochminerals.com</a> or contact:

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#### **Competent Persons Statement**

The information in this report that relates to Exploration Results is based on information compiled by Mr Aidan Platel and represents an accurate representation of the available data. Mr Platel (Member of the Australian Institute of Mining and Metallurgy) is the Company's Chief Geological Officer and 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' ("JORC Code 2012"). Mr Platel consents to the disclosure of this information in this report in the form and context in which it appears.

The information in this release that relates to Geophysical Results and Interpretations is based on information compiled by Russell Mortimer, Consultant Geophysicist at Southern Geoscience Consultants. Russell Mortimer is a Member of the Australasian Institute of Geoscientists (AIG) and has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Russell Mortimer consents to the inclusion in the release of the matters based on this information in the form and context in which it appears.

#### **Forward-Looking Statements**

This document may include forward-looking statements. Forward-looking statements include, but are not limited to, statements concerning Auroch Minerals Limited's planned exploration program and other statements that are not historical facts. When used in this document, the words such as "could," "plan," "estimate," "expect," "intend," "may", "potential", "should," and similar expressions are forward-looking statements. Although Auroch Minerals Limited believes that its expectations reflected in these forward-looking statements are reasonable, such statements involve risks and uncertainties and no assurance can be given that actual results will be consistent with these forward-looking statements.

# JORC Code, 2012 Edition, Table 1 (Nepean) Section 1: Sampling Techniques and Data

#### **EXPLANATION** CRITERIA **COMMENTARY** Nature and quality of sampling (eg cut Drilling Sampling channels, random chips, or specific Auroch Minerals Limited: techniques specialised industry standard measurement Nickel mineralisation at Nepean has been tools appropriate to the minerals under sampled from Reverse Circulation (RC) 1m chip investigation, such as down hole gamma samples. sondes, or handheld XRF instruments, etc). • RC drilling creates 1m samples of pulverised These examples should not be taken as chips, approximately 3kg's is collected in limiting the broad meaning of sampling. individual calico bags Include reference to measures taken to Air Core drilling creates single metre sample ensure sample representivity and the of drill chips appropriate calibration of any measurement Air Core samples are composited every 3 tools or systems used. metres, with the end of hole sample Aspects of the determination of consisting of the final 1m sample. mineralisation that are Material to the Public Report. In cases where 'industry standard' Historic: • Nickel mineralisation at Nepean has been work has been done this would be relatively simple (eg 'reverse circulation drilling was sampled from Reverse Circulation (RC) 1m chip used to obtain 1m samples from which 3kg samples & Diamond core samples. was pulverised to produce a 30g charge for RC drilling creates 1m samples of pulverised fire assay'). In other cases more explanation chips, approximately 3kg's is collected in may be required, such as where there is individual calico bags No diamond core samples are reported in coarse gold that has inherent sampling this announcement. problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed Air Magnetic Survey: information. Contractor: UTS Client: St Francis Mining Ltd Year: 1996 Aircraft: Fletcher Instrumentation: Caesium Vapour

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Sample Interval: ~5m

Flight Line Spacing: 50 and 100m





CRITERIA	EXPLANATION	COMMENTARY	
		270° Tie Line Spacing: 500	
		Mean Terrain Cleara Navigation: Differen	
		DHEM Parameters: Contractor: Configuration: Tx Loop size: single turn Transmitter:	SGC Niche Acquisition Down-hole EM (DHEM) 300x300m to 350x450m,
		Receiver: Sensor: Station spacing: Tx Freq:	Smartem24 DigiAtlantis 2m to 10 m 0.5 Hz
		Duty cycle: Current: Stacks: Readings: per station	50% ~68-75 Amp 64 2-3 repeatable readings
		(MLTEM) ground the Nepear corridor/sequenc commenced late	Transient Electromagnetic I survey is in progress over mextended mine e. The MLTEM survey e April 2021 and will be May at this stage.
		MLTEM configura  • NORDICem24 rec	
			HT SQUID B-field sensor
		ORE_HPTX transn	nitter
		<ul> <li>Loop size – 200x2</li> <li>200m line spacing</li> </ul>	
		100m station spa	
		• Sensor offset – s	slingram, 200m east of loop
		• 0.5Hz base freque	ency
		200A current	
		• ~1msec ramp tim	
		Multiple readings	
		for definition of bed	an industry standard practice rock conductors representing I massive sulphide bodies.









CRITERIA	EXPLANATION	COMMENTARY
Drilling techniques	Drill type (eg core, reverse circulation, openhole 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).	<ul> <li>Auroch Minerals Limited:         <ul> <li>Reverse Circulation (RC) drilling was conducted on all reported results in this announcement</li> </ul> </li> <li>Air Core (AC) drilling results have been reported in this announcement.         <ul> <li>Historic:</li> </ul> </li> </ul> <li>Drilling by previous holders Focus Minerals is reported. The project has been held by various companies since the 1960's, with numerous phases Percussion and Diamond drilling completed. In total 830 drill holes have completed over the Nepean tenure. This is excluding any historic underground drilling</li> <li>Focus drilled 80 RC holes to a maximum depth of 230m,</li> <li>1 Diamond drill hole was drilled by Focus, completed to a maximum depth of 188.5m</li>
Drill sample recovery	<ul> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> <li>Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> <li>Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.</li> </ul>	Auroch Minerals Limited  Sample recovery is noted in the field for each individual sample. Sample is collected via a cyclone and cone splitter attached to the drill rig, which is considered standard for RC sampling.  Air Core samples are collected via an onboard cyclone. Sample recovery is recorded.  No relationship between sample recovery and grade has been yet observed and no sample bias is believed to have occurred. Historic:  Sample recovery assessment details not documented by previous operators Focus Minerals.  Sample recovery assessment details not documented by historic operators.
Logging	<ul> <li>Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.</li> <li>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</li> <li>The total length and percentage of the relevant intersections logged.</li> </ul>	<ul> <li>Auroch Minerals Limited:</li> <li>Drill chips are lithologically logged by Geologists in the field</li> <li>Logging is qualitative, recording rock type and mineral abundance</li> <li>Logging of RC &amp; AC chips is conducted on a 1 metre sample size.</li> <li>Historic:</li> <li>Geological logging data collected to date is sufficiently detailed. At this stage detailed geotechnical logging is not required.</li> <li>Geological logging is intrinsically qualitative.</li> <li>Historic drill holes were geologically logged by previous operators and these data are available to Auroch Minerals.</li> </ul>

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#### CRITERIA

Sub-sampling

techniques and

sample preparation

#### **EXPLANATION**

## 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
- 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.

#### COMMENTARY

#### Auroch Minerals Limited:

- 1m RC percussion, sample is split via a cyclone and cone splitter attached to the drill rig to produce a bagged 3kg sample.
- Certified reference material and blank material are inserted every 20 samples as per company QA/QC procedure
- Field duplicates collected from the Cyclone and cone splitter are inserted every 60 samples
- No further sub sampling has been conducted
- 3m AC sample composites are scooped from sample piles to create a 3kg bagged sample.
- Certified reference material are inserted every 30 samples as per the company Air Core Qa/Qc procedure.

#### Historic:

- 1m RC percussion, maximum 1m length core samples, or as close as reasonable within geological boundaries, are considered appropriate for the style of mineralisation being targeted.
- Historic drill holes were logged at level of detail to ensure sufficient geological understanding to allow representative selection of sample intervals.
- Sampling QA/QC measures taken by previous operator and Focus minerals have not been documented.
- It is assumed that Focus minerals sample sizes were appropriate for the type, style and thickness of mineralisation tested.

## 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 of accuracy (i.e. lack of bias) and precision have been established.

# Auroch Minerals Limited:

- ALS Minerals, multi element analysis method ME-ICP61 utilised for all samples, consisting of multi acid digestion with HF and ICP-AES analysis. Over limit method Ni-OG62H for ore grade Ni consisting of four acid digestion with ICP-AES analysis. PGM-ICP23 fire assay ICP-AES finish method used selectively for samples considered to contain Pt, Pd & Au. All methods are considered suitable for the style of mineralisation targeted.
- Certified Reference Material (CRM's)and quartz blank (Blanks) samples are inserted 1:20 for RC and 1:30 for AC as part of Auroch's QA/QC procedure. Accuracy and performance of CRM's and Blanks are considered after results are received.
- Field duplicates collected from the Cyclone and cone splitter are inserted every 60 samples

#### Historic:

• Focus Minerals – Utilise a AD02 ICP (4 Acid

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CRITERIA EXPLANATION	COMMENTARY
	Digest) Ni, Cu & Co analysis performed by
	ALS.  It is assumed that industry standard
	It is assumed that industry standard commercial laboratory instruments were
	used by ALS to analyse historical drill
	samples from the Nepean prospect.
	It is assumed that industry best practice was
	used by previous operators to ensure
	acceptable assay data accuracy and precision. Historical QA/QC procedures are
	not recorded in available documents.
	DHEM Parameters:
	Contractor: SGC Niche Acquisition
	Configuration: Down-hole EM (DHEM) Tx Loop size: 300x300m to 350x450m,
	Tx Loop size: 300x300m to 350x450m, single turn
	Transmitter: TTX2
	Receiver: Smartem24
	Sensor: DigiAtlantis
	Station spacing: 2m to 10 m
	Tx Freq: 0.5 Hz
	Duty cycle: 50% Current: ~68-75 Amp
	Current: ~68-75 Amp Stacks: 64
	Readings: 2-3 repeatable readings
	per station
	MLTEM Parameters;
	A Moving Loop Transient Electromagnetic (MLTEM) ground survey is in progress over the Nepean extended mine corridor/sequence. The MLTEM survey commenced late April 2021 and will be completed during May at this stage.
	MLTEM configuration:
	NORDICem24 receiver
	CSIRO LANDTEM HT SQUID B-field sensor
	ORE_HPTX transmitter
	• Loop size – 200x200m
	200m line spacing
	100m station spacing
	Sensor offset – slingram, 200m east of loop centre
	0.5Hz base frequency
	• 200A current

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CRITERIA	EXPLANATION	COMMENTARY
		<ul> <li>~1msec ramp time</li> <li>Multiple readings at 64 stacks</li> <li>MLTEM surveys are an industry standard practice for definition of bedrock conductors representing potential mineralised massive sulphide bodies.</li> </ul>
Verification of sampling and assaying	<ul> <li>The verification of significant intersections by either independent or alternative company personnel.</li> <li>The use of twinned holes.</li> <li>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</li> <li>Discuss any adjustment to assay data.</li> </ul>	<ul> <li>Auroch Minerals Limited:         <ul> <li>No third party verification has been completed to date</li> <li>Drill holes have not been twinned</li> <li>All primary paper data is held on site, digitised data is held in a managed database off site.</li> <li>No adjustments to assays have occurred. Historic:             <ul></ul></li></ul></li></ul>
Location of data points	<ul> <li>Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.</li> <li>Specification of the grid system used.</li> <li>Quality and adequacy of topographic control.</li> </ul>	<ul> <li>Auroch Minerals Limited:         <ul> <li>Drill collars were surveyed in GDA94/MGA</li></ul></li></ul>
Data spacing and distribution	<ul> <li>Data spacing for reporting of Exploration Results.</li> <li>Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.</li> <li>Whether sample compositing has been applied.</li> </ul>	Auroch Minerals Limited:  Drill data spacing of historic drill data is sufficient to establish the degree of geological and grade continuity appropriate for this stage of exploration and understanding of mineralisation  Historic:  Typically sampled in 1-4 metre intervals, skipping intervals of no interest and increasing the frequency of sampling depending on the geology observed in diamond drill core.  Drill data spacing of historic drill data is

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CRITERIA	EXPLANATION	COMMENTARY
		sufficient to establish the degree of geological and grade continuity appropriate for estimating an Inferred Ni Resource.  Air Magnetic Survey:  Flight-line spacing 50-100m
Orientation of data in relation to geological structure	<ul> <li>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</li> <li>If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.</li> </ul>	<ul> <li>Auroch Minerals Limited:</li> <li>Drill holes azimuth is perpendicular to stratigraphic strike</li> <li>Drill hole dip is regarded suitable for subvertical stratigraphy and provides a near too true width intersection to minimise orientation bias.</li> <li>Historic:</li> <li>Historical drill holes were oriented, as far as reasonably practical, to intersect the centre of the targeted mineralised zone perpendicular to the interpreted strike orientation of the mineralised zone.</li> <li>The geometry of drill holes relative to the mineralised zones achieves unbiased sampling of this deposit type.</li> <li>No orientation-based sampling bias has been identified.</li> </ul>
Sample security	The measures taken to ensure sample security.	<ul> <li>Auroch Minerals Limited:</li> <li>Drill samples are collected in labelled polyweave bags and closed with tight zip ties.</li> <li>Samples are transported within 1-2days of hole completion by field staff directly to ALS laboratories.</li> <li>Historic:</li> <li>It is assumed that due care was taken historically with security of samples during field collection, transport and laboratory analysis.</li> </ul>
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	No independent audit or review has been undertaken.

# Section 2: Reporting of Exploration Results

CRITERIA	EXPLANATION	COMMENTARY
Mineral tenement and land tenure status	<ul> <li>Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.</li> <li>The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.</li> </ul>	<ul> <li>The Nepean Nickel Project consists of 2 Mining Leases and 11 prospecting leases.</li> <li>M15/709, M15/1809, P15/5625, P15/5629, P15/5738, P15/5740, P15/5741, P15/5742, P15/5743, P15/5749, P15/5750, P15/5963, P15/5965</li> <li>All leases are held by Eastern Coolgardie Goldfields Pty Ltd (ECG), a wholly owned, subsidiary of Auroch Minerals Ltd.</li> <li>No known royalties exist on the leases.</li> <li>There are no material issues with regard to access.</li> </ul>







CRITERIA	EXPLANATION	COMMENTARY
		The tenement is in good standing and no known impediments exist.
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	<ul> <li>Significant exploration drilling has been conducted by the previous lease holders, Metals Exploration NL, Endeavour, St Francis Mining, Anaconda, Spinifex Nickel, Ausminex NL - Consolidated Nickel Pty Ltd.</li> <li>Focus Minerals owned the project between 2007-2020.</li> <li>Data collected by these entities has been reviewed in detail by Auroch.</li> </ul>
Geology	Deposit type, geological setting and style of mineralisation.	<ul> <li>The Nepean Nickel Project is regarded as an Archaean komatiite-hosted massive nickel sulphide deposit.</li> </ul>
Drill hole Information	<ul> <li>A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:         <ul> <li>easting and northing of the drill hole collar</li> <li>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</li> <li>dip and azimuth of the hole</li> <li>down hole length and interception depth</li> <li>hole length.</li> </ul> </li> <li>If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.</li> </ul>	A Drill hole location table has been included in this announcement.
Data aggregation methods	<ul> <li>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.</li> <li>Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.</li> <li>The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> </ul>	<ul> <li>Exploration Results were reported by using the weighted average of each sample result by its corresponding interval length, as is industry standard practice.</li> <li>Grades &gt;1% Ni are considered significant for mineralisation purposes.</li> <li>A lower cut-off grade of 1% Ni has been used to report the Exploration results. Topcuts were deemed not applicable considering the style of Ni mineralisation.</li> <li>Metal equivalent values have not been used.</li> </ul>
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>	Most drill holes were angled to the West so that intersections are orthogonal to the orientation of mineralisation.

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CRITERIA	EXPLANATION	COMMENTARY
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.	Relevant diagrams have been included within the 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 results related to mineralisation at Nepean have been reported in the Significant Intercepts Table.
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.	No other substantive data exists.
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</li> </ul>	<ul> <li>Auroch is currently reviewing all Nepean Nickel Project data to determine if further drilling is warranted. If it is determined that additional drilling is required, the Company will announce such plans in due course.</li> <li>Refer to diagrams in the main body of text.</li> </ul>
	areas, provided this information is not commercially sensitive.	