

24 November 2022

## Results Confirm Mineralisation and Ni-Cu-PGE Exploration Potential at Hart Project

#### **Highlights**

- Multi-element assay results received for 141 samples from first-pass field reconnaissance exploration at the Hart Project
- Results confirm the presence of V-Ti mineralisation and highlight the potential for Ni-Cu-PGE mineralisation across Enegex's Hart Project (East Kimberley) tenements
- A magnetic gabbro sill returned assay values up to 0.37% V₂O₅ and 2.14% Ti with anomalous levels of PGEs, Au, Co, Cu and Ni
- Anomalous Au results adjacent to regional structures point to the potential for structurally related Cu-Au mineralisation

Enegex Limited (ASX: ENX) is pleased to announce that rock chip sample results have been received from recently completed reconnaissance exploration on its East Kimberley Hart Project located along the eastern margin of the Kimberley Basin, Western Australia (**Figure 1**). The results confirm the potential for Ni-Cu-PGE and V-Ti mineralisation with up to 0.37% V<sub>2</sub>O<sub>5</sub> and 2.14% Ti within a magnetic gabbro sill that is also anomalous in Ni-Cu-PGE.

Enegex considers that the Hart Project area is prospective for magmatic Nickel-Copper-Platinum Group Element (Ni-Cu-PGE) and Vanadium-Titanium (V-Ti) deposits, with the area hosting a large unexplored, layered mafic intrusive complex.

#### **Enegex Director Rae Clark commented:**

"The results from reconnaissance rock chip sampling are encouraging and confirm the presence of a prospective sill horizon across our Hart project in the East Kimberley.

We are updating our exploration models and targets in order to plan a more focused exploration campaign in the next field season, concentrating on a Ni-Cu-PGE discovery within the prospective sill horizon. We will also start to explore the extent of the V-Ti and Cu-Au mineralisation potential within the Hart project".



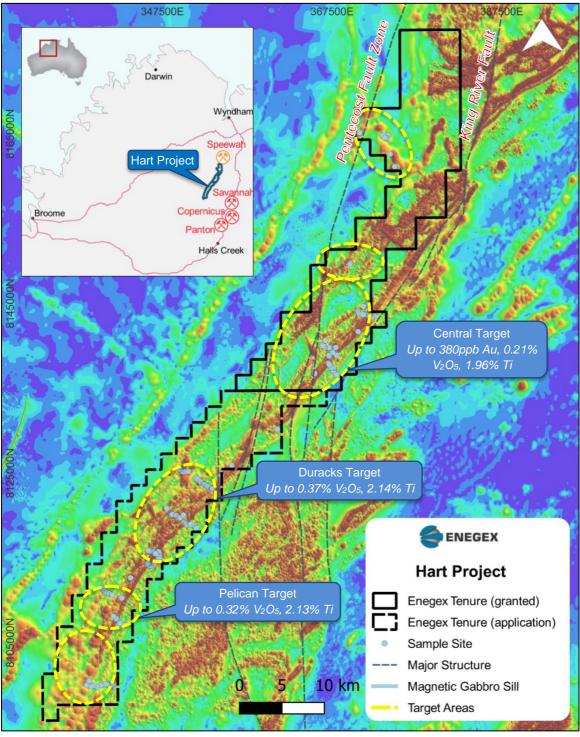


Figure 1. Location of rock chip results at the Hart Project.

#### **Exploration Field Program**

A desktop prospectivity review of the Hart project area, previously completed by Dr. Karin Orth, formed the foundation for the 2022 field reconnaissance and sampling exploration campaign (refer ENX ASX announcement 8<sup>th</sup> September 2022). The field program incorporated a 3½ week remote field campaign completed between July and August 2022 **(Figure 2)**. A series of 9 systematic traverse lines up to 5km long were completed over 4 target areas across the Hart Dolerite intrusive complex. In addition, two targets were investigated via helicopter in the northern tenement.

Exploration activities completed included conceptual target ground validation, rock chip sampling, traverse mapping, magnetic susceptibility data collection and pXRF data on collected rocks across the main target areas.

The traverse mapping results highlighted a strongly magnetic gabbroic sill with highly anomalous magnetic susceptibility values (up to  $92 \times 10^{-3}$  SI). This magnetic gabbroic sill is considered to be the same prospective horizon that hosts the Speewah V-Ti-Fe resource.



Figure 2. Reconnaissance mapping in the Hart Project.

#### **Rock Chip Assay Results**

A total of 214 samples were collected from the field with a subset of 140 samples submitted for Aqua Regia multi-element analysis at Genalysis Intertek, Perth. A further subset of 54 and 36 samples were then submitted for 4-acid digestion method and fire assay analysis respectively. All samples were analysed by pXRF in the field to screen samples for laboratory analysis and for preliminary geochemical classification.

Samples from the magnetic gabbro sill horizon returned up to  $0.37\% V_2O_5$  and 2.14% Ti, with anomalous results located over a strike length of 14km (Figure 1 and Appendix B). This horizon is also anomalous in PGEs, Au, Co, Cu and Ni. Further field work is needed to locate zones of



enrichment. The magnetic sill horizon rarely outcrops and the base of the sill where PGE- enriched horizons could be located has not been sampled to date due to the lack of surface exposure.

A sample of felsic intrusive with 380ppb Au was returned from the northern tenement at the Central target. The sample was located between the Pentecost and King River Faults, the major regional fault structures (**Figure 1**). The majority of Cu-Au occurrences to the north in the Speewah Project are located within these major structures or within associated subsidiary structures.

#### **Next Steps**

The 2022 reconnaissance sampling program successfully highlighted the prospectivity for a variety of mineralisation styles across the Hart project area. Future work at the Hart project will include:

- o Petrographic analysis and update of Enegex's exploration model.
- Additional sampling of the prospective magnetite gabbro horizon to test for a V-Ti or PGE+-Au reef style resource.
- Complete a high level geophysical litho-structural interpretation to generate new Cu-Au style targets located at prospective fault and favorable lithology intersections.
- o Re-examine veins and felsic intrusions with anomalous Cu-Au values.
- New exploration programs to test the potential of Cu-Au style mineralisation.
- o Map the felsic intrusions in more detail for potential sulfide-poor PGE mineralisation.
- o Prioritise target areas and work programs for follow up in the 2023 field season.

#### For more information

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#### Appendix A

#### **Hart Project Overview**

The Hart Project consists of 2 contiguous tenements **(Figure 3)** that cover an area of 724km<sup>2</sup>. The northern tenement (E80/5354) was granted in November 2020 and the southern tenement (E80/5355) is under application.

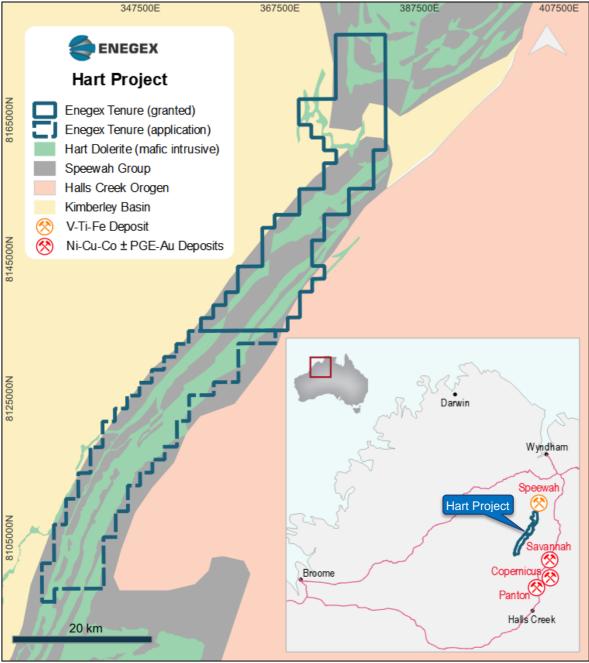


Figure 3. Enegex Hart Project location.

The project is located 12km to the south west of the King River Resources, Speewah Project, 322 million tonne V-Ti-Fe resource<sup>1</sup>. The resource is hosted by a gabbro horizon containing disseminated magnetite within the Hart Dolerite layered intrusive suite of rocks. This same suite of rocks occurs throughout the Enegex tenements.

Historical work in the Enegex Hart Project area focused on gold and diamond exploration and the project area is unexplored for magmatic Ni-Cu-PGE and V-Ti styles of mineralisation. Previous sampling was restricted to early-stage stream sediment, soil and rock chip sampling and no drilling has been completed in the tenement area.

# Appendix B $\label{eq:second} \mbox{Assay Results from the Hart Project >1000ppm V (0.18\% \ V_2O_5) or >300ppb \ Au }$

Sample ID	Target	North <sup>1</sup>	East <sup>1</sup>	$V_2O_5\%^2$	Ti %	Au ppb
HDAW22021	Central	8143568	372063	0.21	1.70	5
HDAW22034	Central	8144603	371263	0.01	0.26	380
HDAW22132	Duracks	8119190	350088	0.30	1.99	6
HDAW22147	Duracks	8115650	346748	0.31	2.14	3
HDAW22148	Duracks	8115602	346774	0.34	1.92	2
HDAW22150	Duracks	8115612	346825	0.33	1.61	-
HDAW22163	Duracks	8114270	345746	0.21	1.34	-
HDAW22165	Duracks	8114406	345814	0.37	1.96	-
HDAW22166	Duracks	8114404	345787	0.28	1.79	-
HDAW22167	Duracks	8114397	345756	0.27	1.83	12
HDAW22168	Duracks	8114418	345814	0.32	1.95	-
HDAW22169	Duracks	8115571	346663	0.25	2.10	3
HDAW22170	Duracks	8115567	346782	0.33	1.59	-
HDAW22171	Duracks	8115571	346663	0.26	1.98	6
HDAW22172	Duracks	8115520	346679	0.27	2.04	6
HDAW22184	Duracks	8111174	340589	0.32	1.70	-
HDAW22212	Pelican	8107771	342027	0.28	1.92	9
HDAW22213	Pelican	8107818	342039	0.26	1.95	8
HDAW22214	Pelican	8107885	342046	0.26	2.13	5

#### **Notes to Table**

1 Co-ordinate System GDA2020, Zone 52

2 Value determined stoichiometry by multiplying V% by 1.785

<sup>&</sup>lt;sup>1</sup>Measured Resource of 322 million tonnes at 0.32% V<sub>2</sub>O<sub>5</sub>, 3.4% TiO<sub>2</sub> and 14.9% Fe. King River Resources Limited. Vanadium Resource Amendment. 1 April 2019.





### Appendix C

## JORC Code (2012 Edition), Assessment and Reporting Criteria

**Section 1: Sampling Techniques and Data** 

Criteria	JORC Code Explanation	Explanation
Sampling Techniques	<ul> <li>Nature and quality of sampling (e.g. 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.</li> <li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li> <li>Aspects of the determination of mineralisation that are Material to the Public Report.</li> </ul>	<ul> <li>Rock chip samples were collected using a sledge hammer and placed into individual calico bags.</li> <li>Samples were generally collected along traverse lines at irregular intervals, often dictated by the availability of outcrop.</li> <li>Samples were generally fist size.</li> <li>Samples were designed to be representative of a variety of rock types with a bias towards any rock that may contain mineralisation.</li> <li>Almost all samples were collected of insitu rock, and fresh rock samples were collected where possible.</li> <li>Samples were subject to pXRF at the field office and a selection of samples were submitted for geochemical assay. No reliance on pXRF results is required in this news release.</li> <li>All sampling is guided by Enegex's protocols and Quality Control procedures as per industry standards.</li> <li>A total of 141 samples were submitted to Intertek Genalysis Laboratory in Perth for analysis by Aqua Regia using the AR005/MSQ53 package. A subset of 54 samples was then selected for analysis by 4 acid digest using the 4AM/OE33 package. In addition, 36 of the 54 samples were selected for analysis by the fire assay method FA50/MS.</li> </ul>
Drilling Techniques	Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc.) and details (e.g. core diameter, triple or standard tube, depth of diamond tails, facesampling bit or other type, whether core is oriented and if so, by what method, etc.).	No drilling is described in this report.
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>	No drilling is described in this report.



Criteria	JORC Code Explanation	Explanation
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>All samples were qualitatively geologically logged for lithology, mineralisation and alteration.</li> <li>All samples were photographed.</li> <li>All samples had their magnetic susceptibility measured using a KT-10 instrument.</li> <li>The sampling is not appropriate for mineral resource estimation.</li> </ul>
Sub- sampling techniques and sample preparation	<ul> <li>If core, whether cut or sawn and whether quarter, half or all core taken.</li> <li>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</li> <li>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> <li>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</li> <li>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.</li> <li>Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>	<ul> <li>No sub-sampling techniques were used.</li> <li>The samples were dry.</li> <li>The samples were prepared by Intertek Genalysis in Perth. Preparation involves crushing the entire sample to 10mm fragments before being pulverised to 85% passing 75 microns (Intertek Genalysis code SP96).</li> <li>The sample preparation for all samples follows industry best practice.</li> <li>Sampling is carried out in accordance with Enegex's protocols as per industry best practice.</li> <li>Field QC procedures involve the use of certified reference material as assay standards and blanks. The insertion rate of these averaged approximately 1:25 samples. Field duplicates are not considered necessary for this stage of exploration.</li> <li>The sample sizes are considered appropriate for the material sampled and the stage of exploration.</li> </ul>
Quality of assay data and laboratory tests	<ul> <li>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</li> <li>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.</li> <li>Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.</li> </ul>	<ul> <li>A total of 141 samples were submitted to Intertek Genalysis Perth for analysis using the Aqua Regia 53 element package including gold by method AR005/MSQ53. There were no over limit results. This technique is generally considered a partial digestion method.</li> <li>A subset of 54 samples was then selected for analysis by 4 acid digest using the 4AM/OE33 package. In addition, 36 of the 54 samples were selected for analysis by the fire assay method FA50/MS for analysis of Au, Pt and Pd. The 4 acid digestion method is generally considered "near-total" and the fire assay method is considered "total".</li> <li>The analysis methods are considered appropriate for this stage of exploration.</li> <li>Samples were logged and preliminary analysis of the geochemistry of the sample was checked using a pXRF machine at the field office. The instrument was calibrated before each use.</li> </ul>



Criteria	JORC Code Explanation	Explanation
		<ul> <li>A KT-10 magnetic susceptibility instrument was used in the field on the samples. A calibration check was completed daily.</li> <li>Sample preparation checks for fineness were carried out by the laboratory as part of their internal procedures to ensure the grind size of 85% passing 75 microns.</li> <li>Internal laboratory QAQC checks are reported by the laboratory.</li> <li>Review of the internal laboratory QAQC suggests the laboratory is performing within acceptable limits.</li> <li>Enegex inserts one blank or one standard approximately every 25 samples.</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>Reported results are compiled and verified by the Company's Exploration Manager and Competent Person</li> <li>Primary field data is collected by Enegex's field geologists in the field using note books and digital tablets. This data is compiled and digitally captured in Excel format.</li> <li>The compiled digital data is verified and validated by the Company's geologists.</li> <li>The data is then imported into a Quest Database by the database manager using data entry procedures and database import tools.</li> <li>An export from the database is then verified and validated by the Company's geologists.</li> <li>There were no adjustments to the assay data.</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>Sample locations were captured by hand-held GPS with a positional accuracy of approximately ±5 metres.</li> <li>Location data was collected in GDA2020, MGA Zone 52.</li> <li>The RL of the samples was not recorded as it is not considered necessary for early reconnaissance work.</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>	<ul> <li>Samples were generally collected along a series of traverses but at variable spacings which is considered sufficient for this stage of exploration.</li> <li>Grab sampling results will not be used for Mineral Resource estimation.</li> <li>Samples were not composited.</li> </ul>
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.	The grab sampling is early stage exploration to determine if there is any mineralisation present. The location and orientation of mineralised structures is unknown at this stage. Traverses were generally orientated at a high angle to lithological units.





Criteria	JORC Code Explanation	Explanation
	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 is described in this report.
Sample security	The measures taken to ensure sample security.	Samples are stored on site prior to road transport to Broome and then freighted to the laboratory in Perth in sealed sample bags.
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	There has been no external audit or review of the Company's techniques or data and Enegex has not carried out any audits or reviews of the historical sampling techniques.

#### **Section 2: Reporting of Exploration Results**

Criteria	JORC Code explanation	Explanation
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>Results reported in this announcement are from granted exploration license E80/5354 and under application exploration license E80/5355 to which Enegex's wholly owned subsidiary Ellendale South Pty Ltd has a 100% interest.</li> <li>The tenements are situated within the Yurriyangem Taam Native Title Claim (WC 2010/013) and Determination (WAD44/2019).</li> <li>The tenement is current and in good standing with all statutory commitments being met as and when required.</li> <li>There are no known impediments to obtaining a license to operate pending the normal approvals process.</li> </ul>
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	Historical exploration within the tenement area has been undertaken by a number of companies, commencing with Pickands Mather in 1967. No drilling has been completed within the project area.
Geology	Deposit type, geological setting and style of mineralisation.	The tenements are located in the eastern portion of the Hart-Carson Large Igneous Province which extends across the Kimberley of northern Western Australia.  The Large Igneous Province (LIP) formed over a 3-5 million year interval about 1790 million years ago in the Kimberley Basin which overlies deformed basement rocks of the Lamboo Complex.
		The LIP consists of the extrusive mafic Carson Volcanics in the lower stratigraphy of



Criteria	JORC Code explanation	Explanation
		the Kimberley Basin and the intrusive sills complex of the Hart Dolerite.
		East of the tenements are multiply deformed granitoids and felsic volcanics of the Lamboo Complex.
		The tenements are mainly in the basal Speewah Group sandstone and siltstone units and the overlying Kimberley Group of the Kimberley Basin to the west. Both are intruded by the Hart Dolerite.
		Along most of the tenement, the succession dips at moderate to low angles to the west. At the northern end of the tenements the doubly plunging antiform of Speewah Dome and complex fold structures to the east are well marked by the Hart Dolerite.
		Numerous NE and N to NNE trending faults dissect the tenement area.
		The northern tenement is located 12km to the south west of the Speewah Project that contains a V-Ti-Fe resource. The resource is hosted by a gabbro horizon containing disseminated magnetite within the Hart Dolerite and is considered to be orthomagmatic style.
		The mineralization is subdivided into a basal high-grade zone 15-20m thick that is overlain by an interval where the vanadium content gradually decreases. The transition from the high-grade to lower grade zone is marked by an interval of sulphur saturation and the presence of anomalous PGE + Au.
		The northern tenement is also located 11km to the south west of a fluorite resource that is hosted within the King River fault system. The mineralisation is hosted in en-echelon quartz-fluorite veins up to 10m thick surrounded by a lower grade stockwork. The structures also host Cu+Au mineralisation.
		The Enegex tenement area has historically been explored predominately for diamonds and gold and most known mineral occurrences are a result of stream sediment surveys.
		Kimberlitic lithologies have been recorded within both tenements and one diamond (0.02 carats) and five micro-diamonds were recovered by CRA during treatment of bulk samples in 1982 at Maude Creek.



Criteria	JORC Code explanation	Explanation
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 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>	No drilling is described in this report.
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>	Not applicable to this report.
Relationship between mineralisati on 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 (e.g. 'down hole length, true width not known').</li> </ul>	Not applicable as no widths or intersections have been 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	<ul> <li>Not applicable as no widths or intersections have been reported.</li> <li>Sample locations for samples with significant assay results are provided within this report.</li> </ul>







Criteria	JORC Code explanation	Explanation
	a plan view of drill hole collar locations and appropriate sectional views.	Location plans of main areas of interest are contained within this 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.	Assay Results are included in this report for samples that returned >1000ppm V (0.18% V2O5) or >300ppb Au.
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>pXRF measurements were taken in the field for the grab samples. pXRF analysis have not been reported to the ASX and are considered qualitative analysis only and are superseded by lab results.</li> <li>Samples have been reported in the appropriate geological context.</li> <li>There is no other exploration data which is considered material to the results reported in the announcement.</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>	<ul> <li>Future exploration programs are under development.</li> <li>Refer to main body of this report.</li> </ul>



