

# High Gold Recoveries at Spur Zone in Geometallurgical Results

## HIGHLIGHTS

- High gold recoveries of over 90% (90-97%) by gravity and conventional leaching indicated by early-stage test work on samples from the Spur Zone
- Coarse, free milling gold in grain sizes up to 688 µm confirmed
- Gravity recovery ranging between 15-45%
- Conventional leaching recovery ranging between 51 and 74%
- Negligible gold tied in silicates (0.6%)
- Results suggest simple, conventional process pathway for Spur

Waratah Minerals Limited (ASX: WTM) (“Waratah” or “the Company”) is pleased to report results received from initial geometallurgical test work from the Spur Zone at the Spur Project (EL5238) in New South Wales, Australia.

## WARATAH MANAGING DIRECTOR, PETER DUERDEN, SAID:

*“This initial test work from the Spur Zone points strongly to a conventional recovery process for gold and reinforces the quality and nature of our Spur Gold Project. We are particularly pleased with the amount of gravity recoverable gold seen and the grain size distribution of this free milling gold.*

*“Additional gold deportment work is underway for the Consols Zone which will contribute to the development of a 3D geometallurgical model for the system and from which a larger scale metallurgical program will be developed.*

*“Drilling continues at Spur with 7 rigs active on site progressing our 80,000m growth and discovery drilling program.”*

## GEOMETALLURGICAL STUDIES

Waratah has undertaken detailed geometallurgical characterisation of 18 samples from the Spur Zone (**Figures 2 and 3**). This geometallurgical program used an innovative workflow using micro-X-ray fluorescence (micro-XRF) scanning technology on cut core, supported by traditional gravity separation and diagnostic leach tests on four larger samples of crushed core. The workflow provided important early-stage insights into gold deportment (microscale location and associated mineralogy), gold grain size and gold recovery to support future metallurgical assumptions.

Gold studies by micro-XRF scanning have been applied with success at Spur due to the coarse nature of the gold, which enables individual grains over 20 microns (µm) to be rapidly detected, mapped and measured on intact core samples up to 20 cm long. A suite of 18 representative diamond drill core samples were chosen based on assay data and geological observations of lithology, alteration, and vein type. Samples were photographed and

rapidly scanned at a high resolution (100 µm) to locate gold and generate mineral maps. Gold grains were then scanned at a higher resolution (20 µm) to generate quantitative data on gold grain size and associated mineralogy.

Four larger (10 kg) core samples were also submitted for traditional diagnostic leaching with gravity recoverable gold assessment to validate findings from micro-XRF scanning and also establish the deportment of fine grains that fall below the micro-XRF detection limit (20 µm). A review of the gravity concentrates using optical microscopy was also completed to gain an understanding of the upper size range of gravity recoverable gold.

Applying the techniques in tandem has enabled a deeper understanding of the nature of the coarser gold grains (>20 µm), whilst also validating those findings and capturing the finer proportion of gold through diagnostic leaching on a larger bulk sample.

### XRF SCANNING RESULTS

A total of 11 areas of approximately 20 mm square were scanned at high resolution from 18 samples of half core. A total of 177 gold grains were detected between 20 and 688 µm in size (**Figure 4 and 5**). The majority (>86%) of the gold, when considered by area percent of gold detected, occurs in a few larger grains (>100 µm). This indicates that the majority of gold detected may be considered coarse in size.

In terms of grain boundary relationships, the gold grains are mostly associated with quartz and chlorite in large (several cm) complex quartz – chlorite – calcite – pyrite - chalcopyrite veins (**Figure 5**). Whilst gold is broadly associated with sulphide-bearing veins, the grains themselves are largely in contact with silicate alteration minerals.

### GRAVITY AND DIAGNOSTIC LEACHING RESULTS

Diagnostic leaching and gravity recovery tests on large (10 Kg) samples of quarter core indicate that all samples returned over 90% gold recovery by combined gravity and cyanide leaching, with recovery by gravity between 15-45 % (average 33.6%) and recovery by cyanidation a further 51-74 % (average 60%; **Figure 6, Table 1**).

Minor gold was found to be associated with sulphides (average 6 %) and negligible gold was found to be locked in silicates (average 0.6 %). A mineralogy review of gold grains in subsamples of the gravity concentrates found 107 grains by optical microscopy in the +38 µm and +75 µm fractions between approximately 50 and 500 µm in size, and a further 29 by TIMA in the –38 µm fraction.

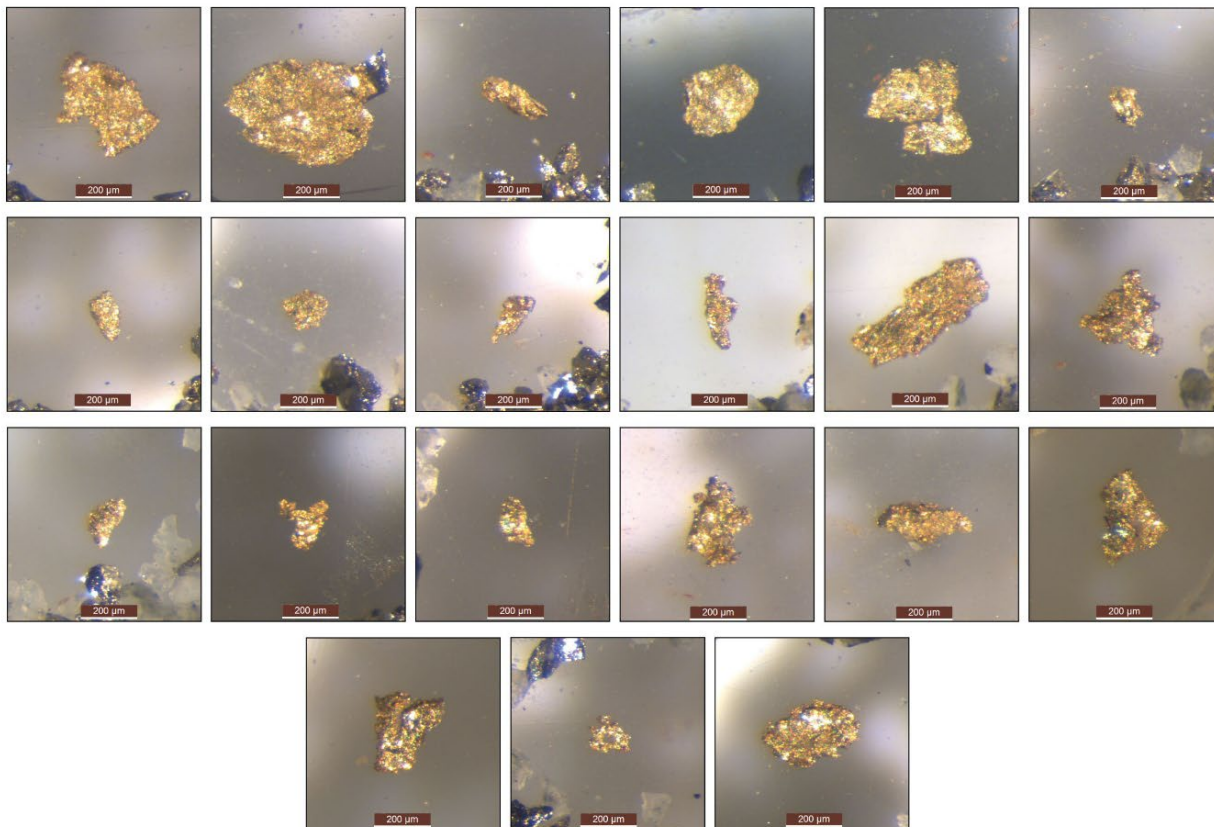
Coarse gold, over 100 µm, was observed in all four samples (**Figure 1**). The gold deportment and observed grain sizes from the laboratory tests on larger sample volumes are consistent with the micro-XRF scanning results from selected drill core.

### SUMMARY AND FUTURE WORK

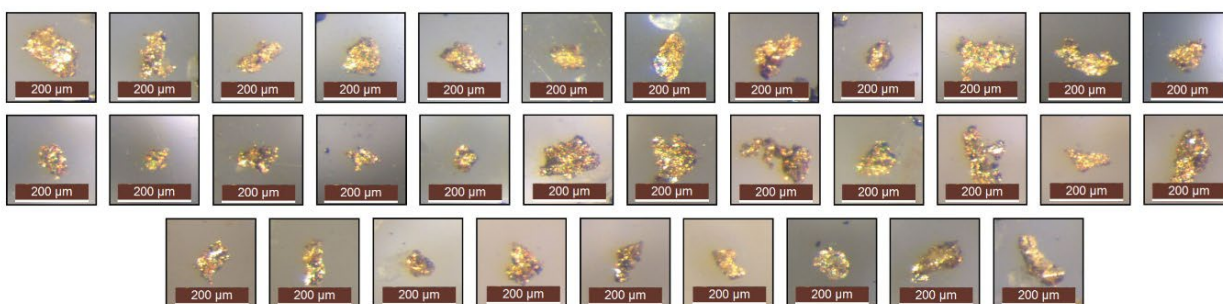
Early-stage geometallurgical studies into gold deportment at Spur confirm the presence of coarse free-milling gold that returns strong recoveries (>90%) by a combination of gravity and cyanide leach under laboratory conditions. This work has also demonstrated that micro-XRF scanning can be utilised as a rapid technique for gold deportment and grain size studies at the project.

Proposed future work involves additional micro-XRF scanning supported by traditional gravity separation and diagnostic leach tests to check for gold deportment variability, linking gold deportment and grain size to paragenesis (vein-type and sequence of hydrothermal events) to further extrapolate this information, and embark on a metallurgical flow sheet design.

### Gravity concentrate +75 $\mu\text{m}$ fraction

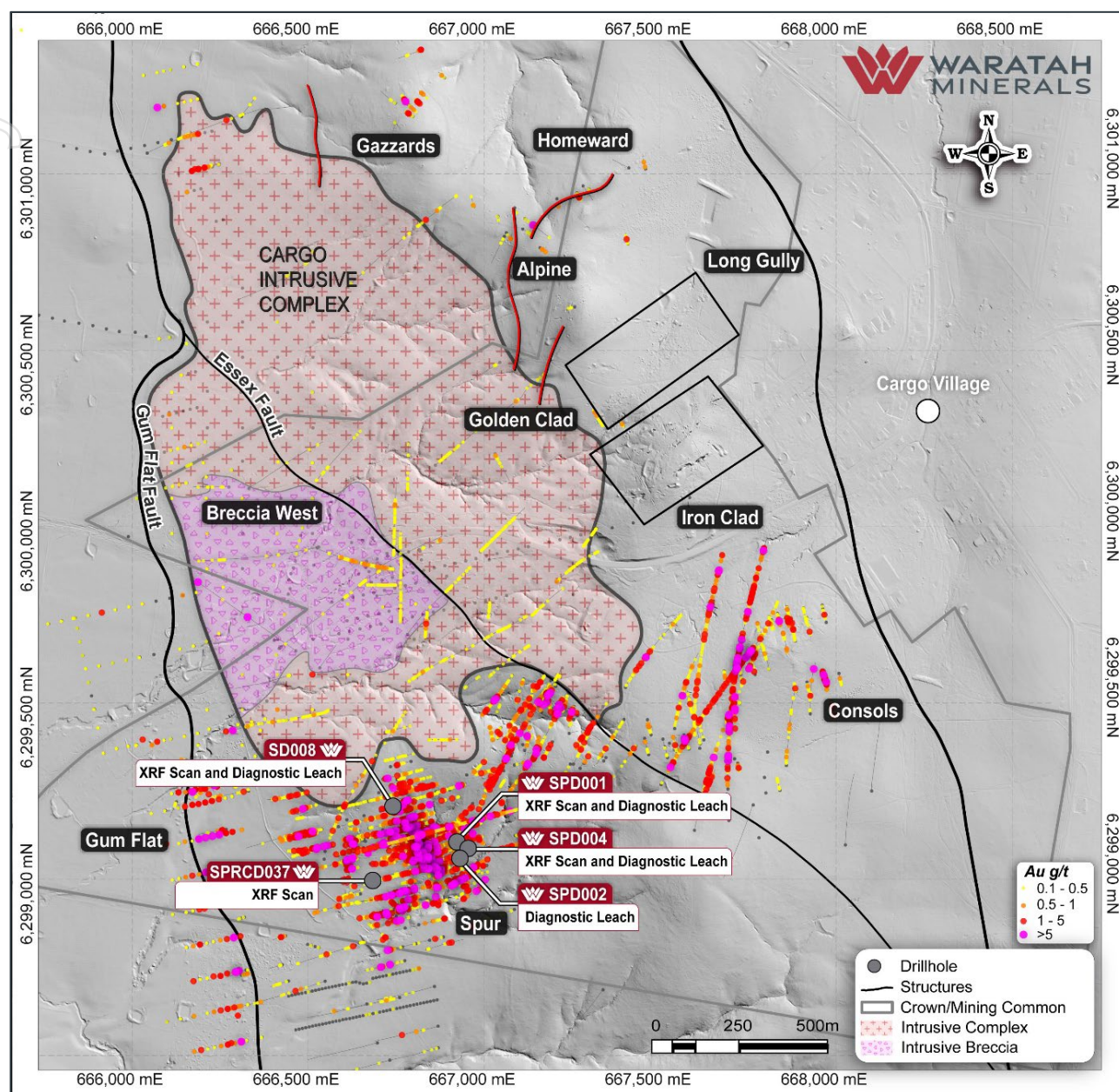


### Gravity concentrate +38 $\mu\text{m}$ fraction

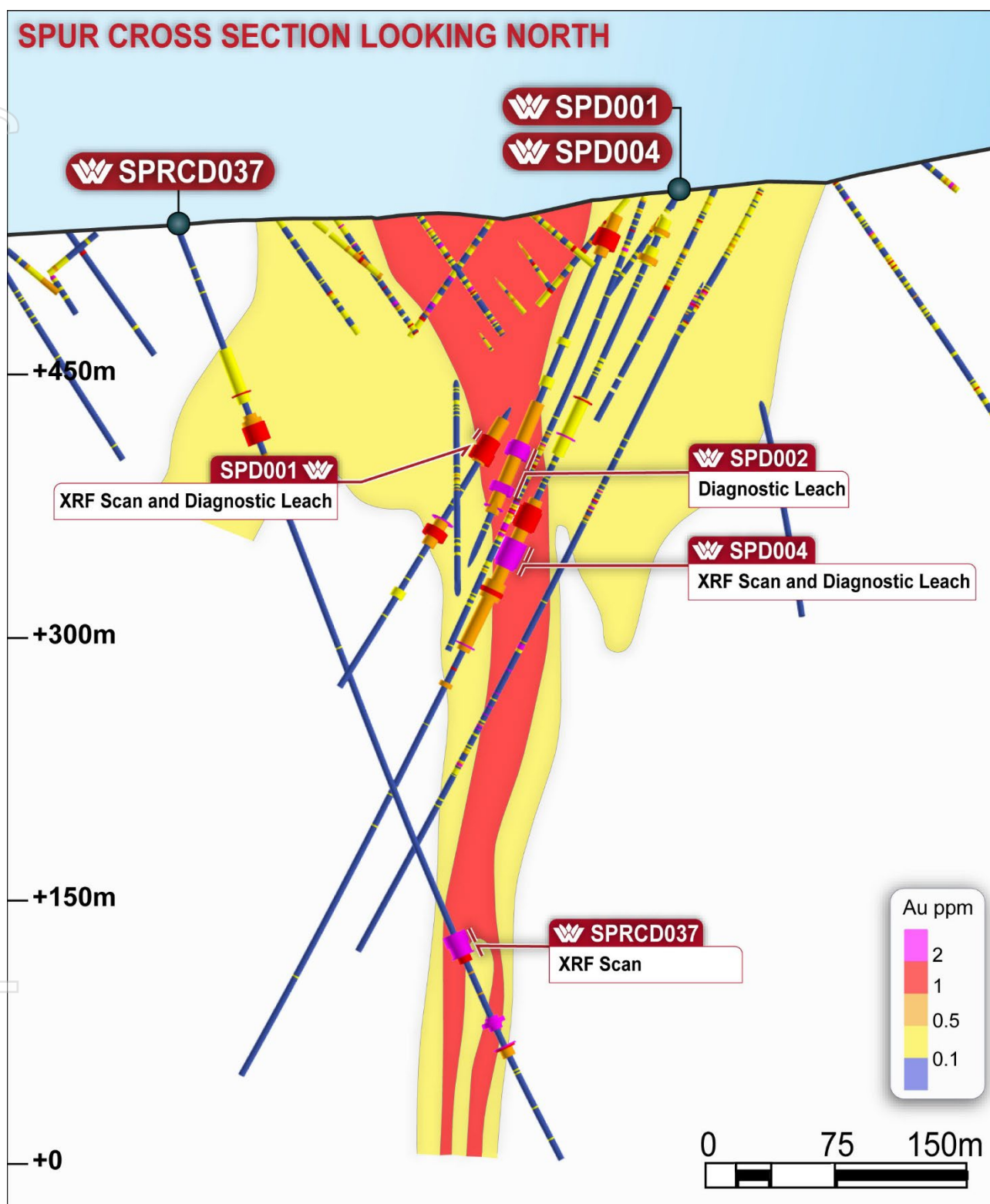


**Figure 1:** An example of the images of gold grains captured by an optical stereo-microscope review of panned sub-samples from the +75  $\mu\text{m}$  and +38  $\mu\text{m}$  fractions of gravity concentrates derived from sample WTM-GMET-002 (hole SD008 47-53 m). Twenty-one coarse and free gold grains were detected in the +75  $\mu\text{m}$  fraction, ranging in size from approximately 200  $\mu\text{m}$  to 600  $\mu\text{m}$ , and 33 coarse and free gold grains were detected from the +38  $\mu\text{m}$  fraction, ranging between 50 and 200  $\mu\text{m}$ . An additional nine grains between 2 and 27  $\mu\text{m}$  were identified using TIMA on a subsample from the -38  $\mu\text{m}$  fraction

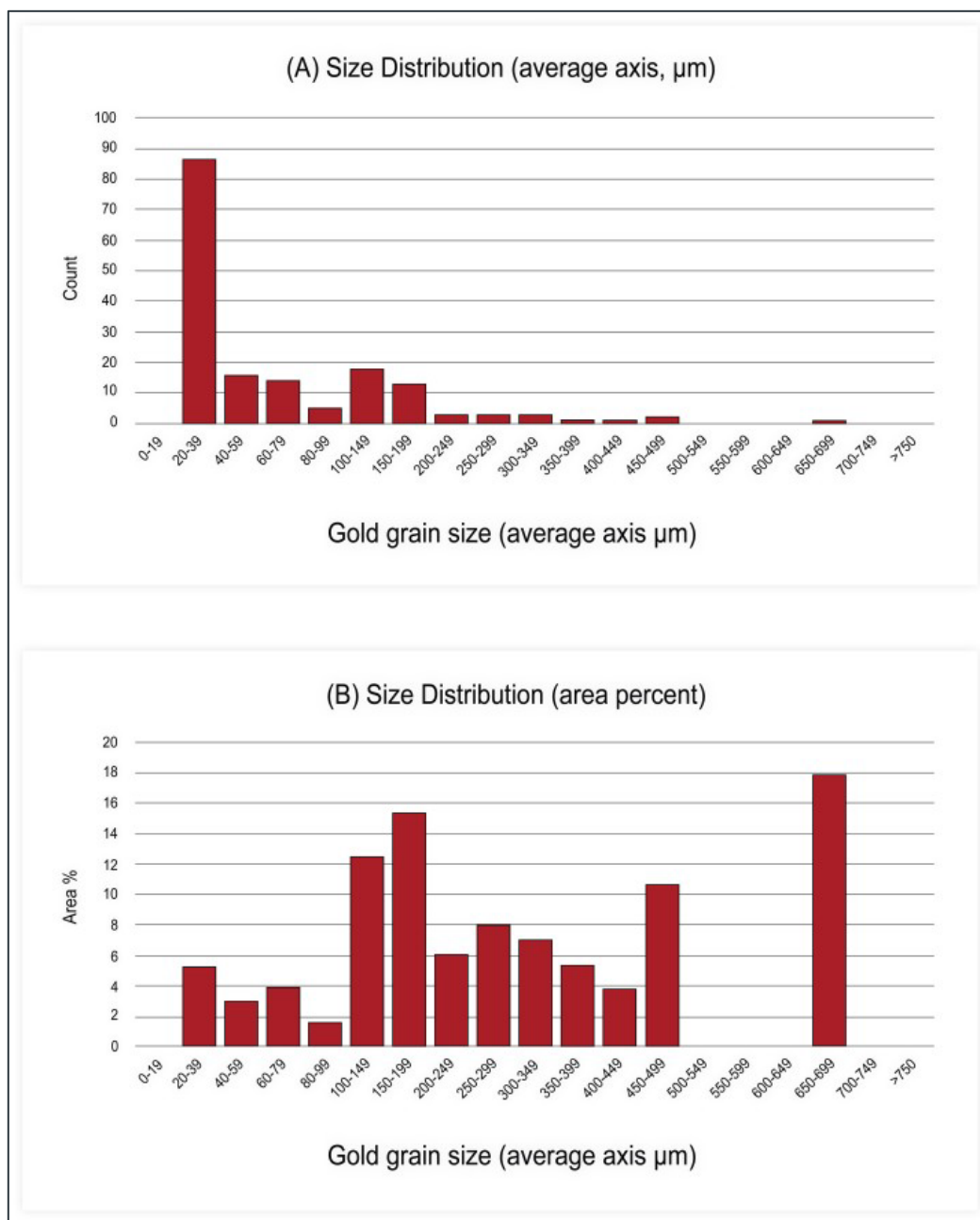




**Figure 2: Spur Project, Plan showing sample locations**



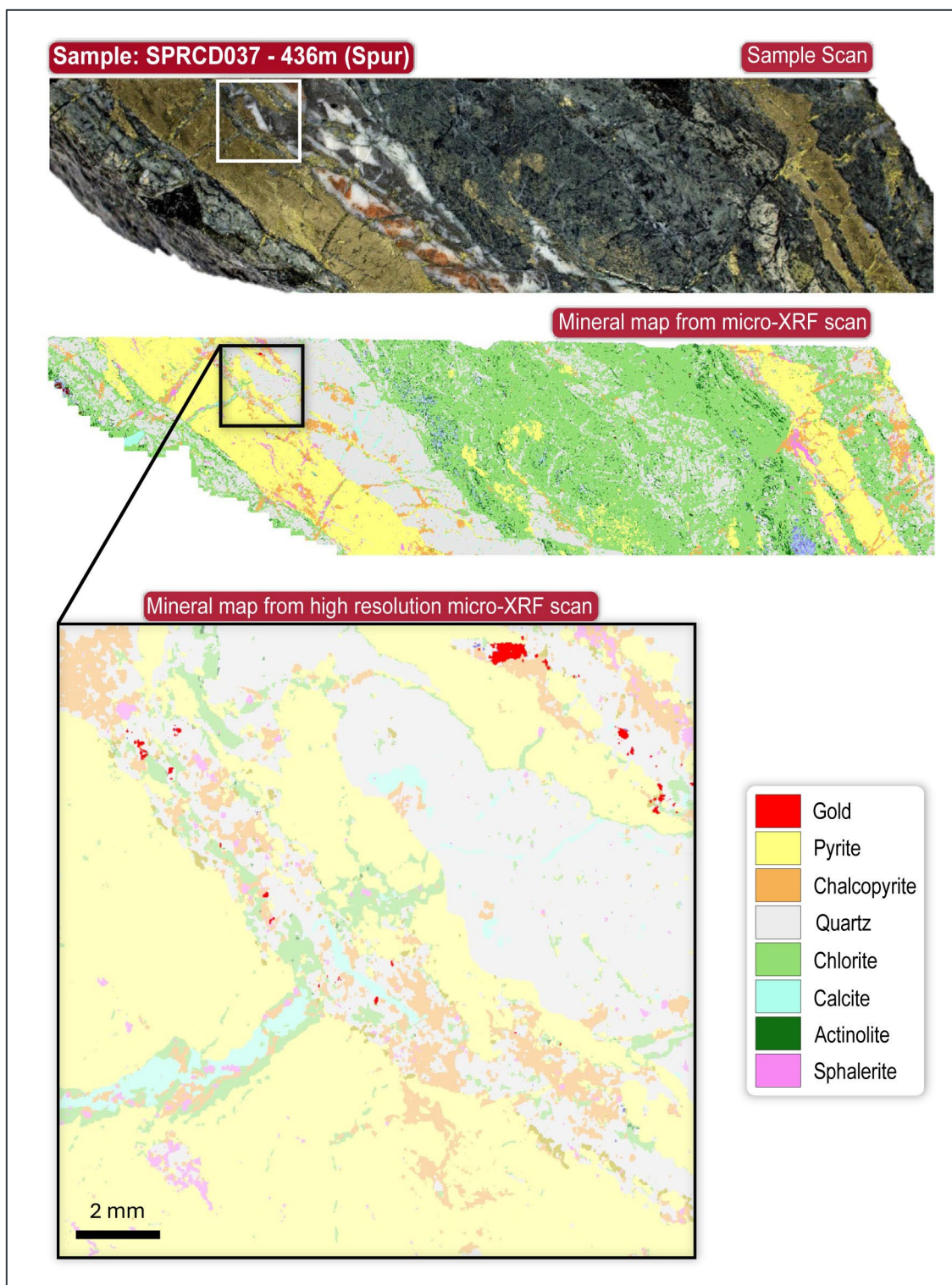
**Figure 3:** Spur Project, Spur Zone Cross Section Showing Sample Locations (SD008 off section)



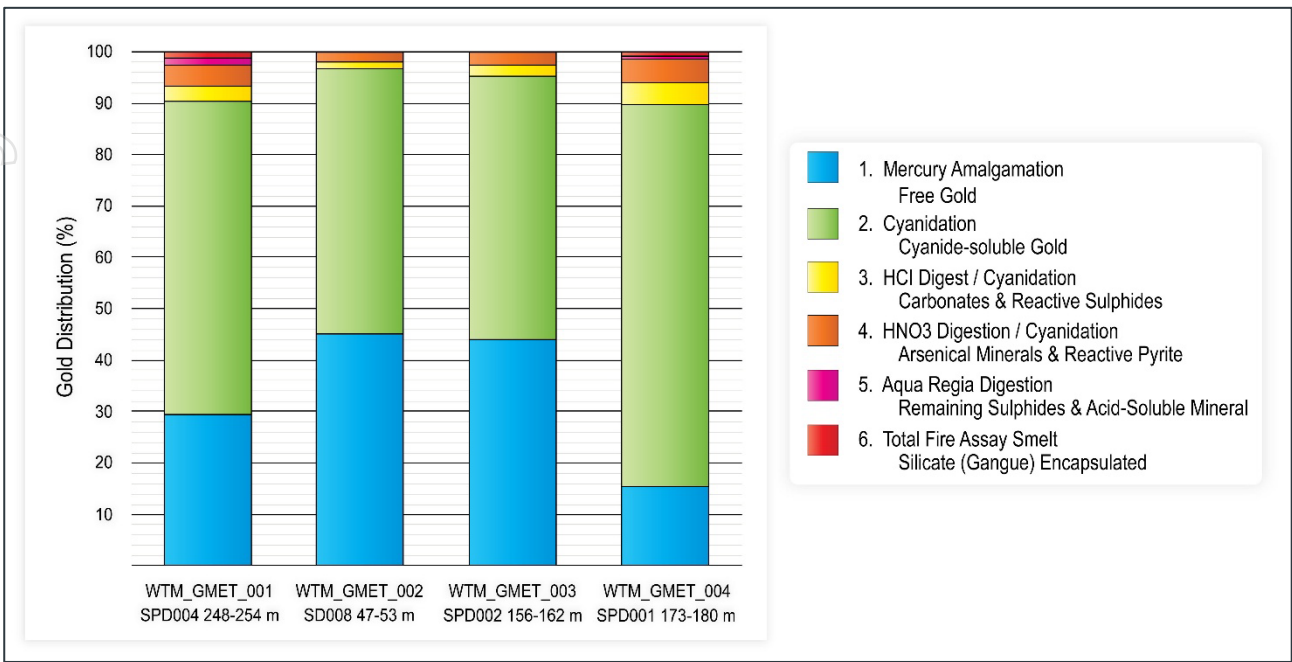
**Figure 4:** A) Histogram to show size distribution of the 177 grains detected in 18 samples by micro-XRF scanning, which range in size between 20  $\mu\text{m}$  and 688  $\mu\text{m}$  (note, the lower limit of detection is 20  $\mu\text{m}$ ).

B) Histogram to show the distribution of gold by considering area percent of gold scanned, over 86 area percent of the detected gold occurs in grains over 100  $\mu\text{m}$  in size and may be considered coarse.





**Figure 5:** An example to show results of micro-XRF scanning with an AMICS (Advanced Mineral Identification and Characterisation System) generated mineral map on half core. The whole sample surface was mapped using a 100  $\mu\text{m}$  per pixel resolution with a follow up area of approximately 20 mm x 20 mm scanned at 20  $\mu\text{m}$  per pixel. Fifty-eight grains of gold between 20 and 688  $\mu\text{m}$  in size were detected in the high-resolution scan.



**Figure 6:** Results of diagnostic leach and gravity recovery tests for gold deportment on bulk (10 Kg) core samples indicate that >90% of gold may be recovered through a combination of gravity and cyanide leach.



**Table1: Diagnostic leach results**

		Unit	WTM_GMET_001 SPD004 248-254 m	WTM_GMET_002 SD008 47-53 m	WTM_GMET_003 SPD002 156-162 m	WTM_GMET_004 SPD001 173-180 m
Ag		g/t	<2	<2	<2	<2
As		ppm	30	20	50	50
Au-1		g/t	0.37	5.47	2.98	0.74
Au-2		g/t	0.44	3.91	3.64	0.89
Au (average)		g/t	0.41	4.69	3.31	0.82
C <sub>TOTAL</sub>		%	0.51	0.39	1.05	0.81
C <sub>ORGANIC</sub>		%	<0.03	<0.03	<0.03	<0.03
Fe		%	6.88	5.94	11.9	7.66
S <sub>TOTAL</sub>		%	0.64	2.12	1.66	1.14
S <sub>SULPHIDE</sub>		%	0.58	1.76	1.46	1.06
Sb		ppm	1.2	0.6	1.4	0.8
1. MERCURY AMALGAMATION - FREE GOLD	Recovered	g/t	0.17	1.71	1.62	0.15
	Distribution	%	29.4	45.4	44.0	15.5
2. CYANIDATION - CYANIDE-SOLUBLE GOLD	Recovered	g/t	0.35	1.94	1.88	0.73
	Distribution	%	60.9	51.4	51.1	74.2
3. HCl DIGEST / CYANIDATION - CARBONATES & REACTIVE SULPHIDES	Recovered	g/t	0.02	0.04	0.08	0.04
	Distribution	%	3.2	1.2	2.3	4.3
4. HNO <sub>3</sub> DIGESTION / CYANIDATION - ARSENICAL MINERALS & REACTIVE PYRITE	Recovered	g/t	0.02	0.06	0.08	0.04
	Distribution	%	4.0	1.6	2.2	4.4
5. AQUA REGIA DIGESTION - REMAINING SULPHIDES & ACID- SOLUBLE MINERAL	Recovered	g/t	0.01	0.01	0.01	0.01
	Distribution	%	1.3	0.2	0.2	0.7
6. TOTAL FIRE ASSAY SMELT - SILICATE (GANGUE) ENCAPSULATED	Recovered	g/t	0.01	0.01	0.01	0.01
	Distribution	%	1.3	0.2	0.2	0.7
	Total Rec	g/t	0.58	3.76	3.67	0.98
	Distribution	%	100.00	100.00	100.00	100.00

**ABOUT WARATAH MINERALS (ASX:WTM)**

Waratah Minerals is focused on its flagship Spur Gold and Copper Project in the East Lachlan region of New South Wales, Australia. The project is considered highly prospective for epithermal-porphyry gold and copper mineralisation and is located in Australia's premier gold-copper porphyry district.

The Company also holds tenure in western Victoria (Stavely-Stawell Gold Project) with the combined tenure representing a highly prospective target portfolio.



**This release has been approved by the Board.**

**For further information visit [www.waratahminerals.com](http://www.waratahminerals.com) or contact:**

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**Waratah Minerals' Competent Person's Statement**

The information in this announcement that relates to Exploration Targets, Exploration Results or Mineral Resources is based on information compiled by Mr Peter Duerden who is a Registered Professional Geoscientist (RPGeo) and member of the Australian Institute of Geoscientists. Mr Duerden is a full-time employee of Waratah Minerals Limited 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". Mr Duerden consents to the inclusion in this presentation of the matters based on his information in the form and context in which it appears. The information in this report on the Spur Project that relates to Waratah Minerals' prior Exploration Results is a compilation of previously released to ASX by the Company (see ASX announcements dated: 10 April 2024, 22 May 2024, 17 June 2024, 2 July 2024, 30 July 2024, 24 September 2024, 19 November 2024, 20 January 2025, 24 March 2025, 28 April 2025, 5 May 2025, 18 June 2025, 4 August 2025, 10 September 2025, 14 October 2025). Mr Duerden consents to the inclusion of these Results in this report. Mr Duerden has advised that this consent remains in place for subsequent releases by the Company of the same information in the same form and context, until the consent is withdrawn or replaced by a subsequent report and accompanying consent. The Company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcements and that all material assumptions and technical parameters in the market announcements continue to apply and have not materially changed. The Company confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original market announcements.

The information in this announcement that relates to metallurgical testing is based on information compiled by Dr Angela Escolme who is a member of the Australasian Institute of Mining and Metallurgy (AusIMM). Dr Escolme has been engaged as a consultant by Waratah Minerals Limited and has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which she 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". Dr Escolme consents to the inclusion in this presentation of the matters based on her information in the form and context in which it appears. Dr Escolme has advised that this consent remains in place for subsequent releases by the Company of the same information in the same form and context, until the consent is withdrawn or replaced by a subsequent report and accompanying consent. The Company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcements and that all material assumptions and technical parameters in the market announcements continue to apply and have not materially changed. The Company confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original market announcements.



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**Forward-Looking Statements**

This announcement contains "forward-looking statements" within the meaning of securities laws of applicable jurisdictions. Forward-looking statements can generally be identified by the use of forward-looking words such as "may", "will", "expect", "intend", "plan", "estimate", "anticipate", "believe", "continue", "objectives", "outlook", "guidance" or other similar words, and include statements regarding certain plans, strategies and objectives of management and expected financial performance. These forward-looking statements involve known and unknown risks, uncertainties and other factors, many of which are outside the control of Waratah Minerals and any of its officers, employees, agents or associates. Actual results, performance or achievements may vary materially from any projections and forward-looking statements and the assumptions on which those statements are based. Exploration potential is conceptual in nature, there has been insufficient exploration to define a Mineral Resource and it is uncertain if further exploration will result in the determination of a Mineral Resource. Readers are cautioned not to place undue reliance on forward-looking statements and Waratah Minerals assumes no obligation to update such information.

## Appendix 1 – JORC Code, 2012 Edition – Table 1

## Section 1 Sampling Techniques and Data – Spur Project – Geometallurgical Studies

Criteria	JORC Code Explanation	Commentary
Sampling techniques	<i>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</i>	<ul style="list-style-type: none"> <li>• Diamond drilling (DD) was conducted by Durock Drilling Pty Ltd, Ophir Drilling Pty Ltd, and Mitchell Services Ltd.</li> <li>• DD sample intervals were defined by geologist at nominal 1m intervals during logging to geologically selected intervals, cut in half using a Corewise or Almonte diamond saw and submitted to either SGS or ALS Laboratories in Orange for analysis.</li> <li>• All diamond drill core is being cut, sampled, and assayed.</li> </ul>
	<i>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</i>	<ul style="list-style-type: none"> <li>• Sampling and QAQC procedures are carried out using Waratah protocols as per industry best practice</li> <li>• Diamond drill core was systematically orientated with a core orientation tool for each drill run. using a REFLEX or AXIS MINING TECHNOLOGY, Integrated Core Orientation tool</li> </ul>
	<i>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.</i>	<ul style="list-style-type: none"> <li>• Sampling and QAQC procedures are carried out using Waratah protocols as per industry best practice</li> <li>• Core was laid out in labelled core trays. A core marker (core block) was placed at the end of each drilled run (nominally 3m) and labelled with the hole number, down hole depth, length and return of drill run. Core was aligned and measured by tape, with core recovery recorded consistent with industry standards</li> <li>• Diamond drill core was systematically sawn in half to obtain a nominal sample length of 1m, from which an approximate 3kg sample was obtained</li> <li>• All drill results reported were assayed using photon assay (PA) (SGS PAAU02) with nominal sample weight of 500g.</li> <li>• Any samples undergoing PA with high Ba, U, or Th assays will also undergo screen-fire assay</li> <li>• Multielement suite was determined by multi-acid digest with ICP Mass Spectrometry analytical finish (ALS labs ME-MS61).</li> </ul>
Drilling techniques	<i>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-</i>	<ul style="list-style-type: none"> <li>• Diamond drilling was undertaken as triple tube diamond drilling with PQ3/HQ3 wireline bit producing 83mm diameter (PQ3), 61.1mm diameter (HQ3) and 45mm diameter (NQ3) sized orientated core</li> </ul>

Criteria	JORC Code Explanation	Commentary
	<i>sampling bit or other type, whether core is oriented and if so, by what method, etc).</i>	<ul style="list-style-type: none"> <li>At the core processing facility core was orientated where possible between orientation marks and metre depth marks correlated against core blocks based on drillers downhole rod count/measurement</li> </ul>
Drill sample recovery	<i>Method of recording and assessing core and chip sample recoveries and results assessed.</i>	<ul style="list-style-type: none"> <li>Diamond drill core was logged for core loss and correlated against core blocks identifying core recovery and core barrel drill depth. Core loss was recorded in the geological database.</li> </ul>
	<i>Measures taken to maximise sample recovery and ensure representative nature of the samples.</i>	<ul style="list-style-type: none"> <li>Diamond drill collars of PQ or HQ diameter were drilled to competent ground before reducing to either HQ or NQ using triple tube as required to maximise sample recovery</li> </ul>
	<i>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.</i>	<ul style="list-style-type: none"> <li>Core samples do not cross core-loss.</li> <li>There is no known relationship between sample recovery and grade.</li> </ul>
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.</i>	<ul style="list-style-type: none"> <li>Systematic geological and geotechnical logging was undertaken.</li> <li>Each nominal one metre interval is geologically logged for characteristics such as lithology, weathering, alteration (type, character and intensity), veining (type, character and intensity) and mineralisation (type, character and volume percentage)</li> <li>Location, extent and nature of structures such as bedding, cleavage, veins, faults etc. Structural data (dip and dip direction using a Core Orientation Device -Rocket Launcher) are recorded for orientated core.</li> <li>Geotechnical data such as recovery and RQD. Additional fracture frequency, qualitative IRS, microfractures, veinlets and number of defect sets if required.</li> <li>Bulk density by Archimedes principle at regular intervals.</li> <li>Magnetic susceptibility recorded at 1m intervals</li> </ul>
	<i>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</i>	<ul style="list-style-type: none"> <li>Qualitative geological logging of diamond core included lithology, mineralogy, structure, veins and alteration</li> <li>Diamond drill core was colour photographed in the core tray</li> </ul>
	<i>The total length and percentage of the relevant intersections logged.</i>	<ul style="list-style-type: none"> <li>100% of drill core and RC metres were geologically logged</li> </ul>



Criteria	JORC Code Explanation	Commentary
Sub-sampling techniques and sample preparation	<i>If core, whether cut or sawn and whether quarter, half or all core taken.</i>	<ul style="list-style-type: none"> <li>Diamond core was sawn in half using an Almonte or Core-wise core saw. Half core was taken for analysis.</li> <li>For destructive geometallurgical diagnostic leach and gravity separation analysis (GMET), quarter core was cut from the retained half core</li> <li>For non-destructive geometallurgical micro-XRF (GMET-XRF) analysis, samples were selected from the retained half core and returned after analysis</li> </ul>
	<i>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</i>	<ul style="list-style-type: none"> <li>Not applicable</li> </ul>
	<i>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</i>	<ul style="list-style-type: none"> <li>ME samples were crushed with 70% &lt;2mm (ALS CRU-31), split by riffle splitter (ALS SPL-21), and pulverised to 85% &lt;75% (ALS PUL-32). Crushers and pulverisers are washed with QAQC tests undertaken (ALS: CRU-QC, PUL-QC)</li> <li>PA samples undergo crushing to &lt;2mm (SGS G_CRU_KG). Crushers and pulverisers are washed with QAQC tests undertaken (SGS G_SCR_D)</li> <li>GMET samples of approximately 10 kg undergo crushing to &lt;3.35 mm and homogenisation by multiple passes through a rotary sample divider with representative 1 kg charges split out for test work as per ALS laboratory procedures</li> <li>GMET-XRF samples require little to no sample preparation other than surface cleaning</li> </ul>
	<i>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</i>	<ul style="list-style-type: none"> <li>Internal QAQC system in place to determine accuracy and precision of assays maintaining industry standard of minimum 5% of assayed samples.</li> <li>All assayed samples above reporting cut-offs between failed CRM's are re-assayed.</li> <li>Duplicate half core, blank sand, and OREAS Certified Reference Materials, were inserted into the sample stream at geologically relevant intervals for quality control</li> <li>Sand blanks were input after samples containing visible gold or massive sulphides to ensure non-contamination during preparation.</li> </ul>
	<i>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.</i>	<ul style="list-style-type: none"> <li>Diamond core was sawn in half slightly to the right of the orientation line to establish a vertical downhole duplicate sample to represent the in-situ material.</li> </ul>
	<i>Whether sample sizes are appropriate to the grain size of the material being sampled.</i>	<ul style="list-style-type: none"> <li>Samples are of appropriate size</li> </ul>

Criteria	JORC Code Explanation	Commentary
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.</i>	<ul style="list-style-type: none"> <li>• PA's have been conducted using the Chrysos PhotonAssay machine hosted at SGS Laboratories in Orange.</li> <li>• The PhotonAssay technique was developed by CSIRO and Chrysos Corporation and is a fast, chemical free non-destructive, alternative to traditional Fire Assay, using high-energy X-rays with a significantly larger sample size (500g v's 50g for Fire Assay). This technique is accredited by the National Association of Testing Authorities (NATA). PhotonAssay tests a much larger sample (500g vs. 50g) and so when coarse gold is present, has the potential to provide amore robust quantification of Au within a sample relative to Fire Assay.</li> <li>• Gold determined by photon assay uses a crushed sample &lt;2mm sample.</li> <li>• After ME data is returned samples with high BA, U and Th grades are reassessed using screenfire assays.</li> <li>• All major intercepts assayed by FA are undergoing reassay using photon assay (Au-PA01) through ALS.</li> <li>• A multielement assay suite was determined by multi-acid digest with ICP Mass Spectrometry analytical finish</li> <li>• Screen Fire Assays were conducted routinely in the case of visible gold or original gold fire assays (Au_SCR24)</li> <li>• GMET samples were analysed by ALS assay laboratory, Balcatta, as follows: sample preparation (crushing, blending and splitting), comprehensive head assays, grind establishment testwork, gravity/mercury amalgamation, and multi-stage diagnostic leach testwork in order to determine deportment of gold</li> <li>• Grind establishment was undertaken on sub-samples of each GMET sample by ALS, Balcatta. The objective was to determine the time required to grind a sub-sample of &lt;3.35 mm crushed ore to the target grind size, using a laboratory rod mill. In this case, the target grind size was P80 75 µm</li> <li>• The following analytical methods were used for GMET sample analysis by ALS, Balcatta: <ul style="list-style-type: none"> <li>• Gold in residues by Fire assay/ICP-OES</li> </ul> </li> </ul>

Criteria	JORC Code Explanation	Commentary
		<ul style="list-style-type: none"> <li>Gold in solutions: ICP-MS</li> <li>Gold in carbon: Ash/acid digest/ICP-OES</li> <li>Carbon speciation: Labfit CS2000 analyser</li> <li>Sulphur speciation: Sherritt method/CS2000 analyser</li> <li>Arsenic: D7 acid digest/ICP-OES</li> <li>Antimony, mercury &amp; tellurium: D1 low-temperature acid digest/ICP-MS</li> <li>Elemental scan: D3/D4Z acid digest/ICP</li> </ul> <ul style="list-style-type: none"> <li>GMET gravity separation and mercury amalgamation was undertaken as follows by ALS, Balcatta: A 5.0 kg sub-sample of each sample was ground to P80 75 µm and passed through a 3" Knelson concentrator. The concentrate was sieved to generate three size fractions (+75 µm, -75 +38 µm, and -38 µm). Each size fraction was submitted (separately) for amalgamation with mercury to recover free gold. Prior to amalgamation, the sized concentrates were submitted for mineralogical analysis to confirm the presence of coarse, liberated gold grains</li> <li>Mineralogical analysis of GMET sample gravity concentrates was undertaken by optical microscopy for the +75 µm and +38 µm fractions, and by TIMA for the -38 µm fraction by ALS, Balcatta. A portion of each +75 µm and +38 µm size fraction (unmounted particles) was hand-panned and examined for the presence of coarse, free gold grains using a stereo-microscope. A bright phase search (BPS-Dot) was undertaken on polished blocks for the -38 µm fractions to locate minerals with high atomic density and strong electron backscatter response, including gold-rich phases. The gold particles detected during the scan were mapped with 0.5 µm spacing</li> <li>The GMET diagnostic sequence of tests was conducted as follows:               <ol style="list-style-type: none"> <li>(1) Free gold was determined by submitting a gravity concentrate (split into three size fractions) for amalgamation with 5g of mercury</li> <li>(2) The amalgamation tail (gravity concentrate) was combined with the Knelson tail, and a</li> </ol> </li> </ul>



Criteria	JORC Code Explanation	Commentary
		<p>sub-sample was submitted for a direct cyanide leach to determine the distribution of cyanide-soluble gold</p> <p>(3) The leach residue was then subjected to 3M HCl digestion to destroy the carbonate minerals. The residue from hydrochloric acid digestion was subsequently cyanide leached to determine the quantity of gold released from the carbonate minerals</p> <p>(4) The residue from the HCl/cyanide leach was subjected to dilute nitric acid digestion to destroy the arsenical minerals such as arsenopyrite and arsenical pyrite. The residue from the nitric acid digestion stage was subsequently cyanide leached to determine the released gold content</p> <p>(5) The residue from the HNO<sub>3</sub>/cyanidation stage was split. One sub-sample was submitted directly for fire assay, and the other was submitted for diagnostic gold assay (aqua regia followed by fire assay). The aqua regia digest dissolves any remaining sulphide minerals and subsequently releases any contained gold into the solution</p> <p>(6) The residue from the aqua regia digest was fire assay smelted to determine the silicate (gangue) encapsulated gold content</p>
	<p><i>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.</i></p>	<ul style="list-style-type: none"> <li>No geophysical tools were used to determine any element concentrations</li> <li>GMET-XRF analysis on selected samples of cut core was undertaken by Portable Spectral Services, Perth (PSS), using a Bruker M4 TORNADO PLUS micro-XRF mapper with data interpretation using Advanced Mineral Identification and Characterisation System (AMICS) software in order to map mineralogy, identify gold grains and extract their size and mineral association. X-ray acquisition was made using the instruments Rh tube set to 50 kV at 600 µA, a dual 60 mm<sup>2</sup> XFlash® detector and 2 mbar sample chamber pressure. Initial sample scans were made using a 100 µm pixel with 30ms/pixel dwell time, and follow-up scans at 20 µm per pixel with 30 ms/pixel dwell time</li> <li>Notable considerations of the GMET-XRF analysis include the following:</li> </ul>

Criteria	JORC Code Explanation	Commentary
		<ul style="list-style-type: none"> <li>• X-ray analysis is not just a surface technique and has a depth component that is dependent on the elemental composition of the material being analysed, which controls incident X-ray penetration into the sample and the escape and detection of fluorescent X-rays. Therefore, raw elemental responses can reflect sub-surface fluorescent responses up to 5mm.</li> <li>• The dataset has a lower size limit of 20 <math>\mu\text{m}</math> that reflects the size of the mineral map pixels, smaller grains cannot be accurately identified using this technique – as such, the <math>\mu\text{XRF}</math> technique in this context is being used to better understand the deportment of larger grains and their likely size range</li> <li>• There are some limits to the mineralogy identified as a result of elements detected under X-ray fluorescence and scan resolution - with the range of confidence being from Na to U. Micro-XRF is a non-destructive, complimentary technique to other techniques such as scanning electron microscopy</li> <li>• Qualitative elemental map data can be segmented into bins of mineral matches using the AMICS library, this allows for the output of minerals maps and quantitative mineral % as area modal mineralogy, reflecting the resolution of which it was scanned. Presence of these mineral phases were also confirmed optically under inspection through a stereo microscope by the team at PSS</li> <li>• With these considerations in mind, results reported herein should be treated with appropriate caution and uncertainty. However, it is the opinion of the authors that the presented dataset provides useful information on the gold deportment and grain size for gold grains above the detection limit of a <math>&gt;20 \mu\text{m}</math> scan. The findings have also being corroborated against other laboratory methods</li> </ul>
	<i>Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable</i>	<ul style="list-style-type: none"> <li>• QAQC system in place, including duplicate half core, blank sand samples, and OREAS Certified Reference Materials</li> </ul>

Criteria	JORC Code Explanation	Commentary
	<i>levels of accuracy (ie lack of bias) and precision have been established.</i>	
Verification of sampling and assaying	<i>The verification of significant intersections by either independent or alternative company personnel.</i>	<ul style="list-style-type: none"> <li>Drill data is compiled and reviewed by senior staff. External consultants do not routinely verify exploration data until resource estimation procedures are underway</li> </ul>
	<i>The use of twinned holes.</i>	<ul style="list-style-type: none"> <li>No twinned holes have been drilled at this early stage of exploration</li> </ul>
	<i>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</i>	<ul style="list-style-type: none"> <li>The geological database is maintained in MX Deposit</li> <li>All drill hole logging and sampling data is entered directly into ready for loading into the database, where it is loaded with verification protocols in place</li> <li>All primary assay data is received from the laboratory as electronic data files which are imported into sampling database with verification procedures in place. QAQC analysis is undertaken for each laboratory report</li> </ul>
	<i>Discuss any adjustment to assay data.</i>	<ul style="list-style-type: none"> <li>Assay data has not been adjusted</li> </ul>
Location of data points	<i>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.</i>	<ul style="list-style-type: none"> <li>Drill hole collars were laid out using handheld GPS (accuracy <math>\pm 2\text{m}</math>).</li> <li>Collars are DGPS surveyed upon completion (<math>\pm 0.1\text{m}</math>)</li> <li>Downhole survey measurements including depth, dip and azimuth were taken at regular intervals during the drilling cycle along with a continuation multishot at end of hole.</li> </ul>
	<i>Specification of the grid system used.</i>	<ul style="list-style-type: none"> <li>Geodetic Datum of Australia 1994, MGA (Zone 55)</li> </ul>
	<i>Quality and adequacy of topographic control.</i>	<ul style="list-style-type: none"> <li>Collars are DGPS surveyed upon completion (<math>\pm 0.1\text{m}</math>)</li> </ul>
Data spacing and distribution	<i>Data spacing for reporting of Exploration Results.</i>	<ul style="list-style-type: none"> <li>At the exploration stage, data spacing is variable and designed to understand the nature and controls on mineralisation</li> </ul>
	<i>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.</i>	<ul style="list-style-type: none"> <li>Results are considered early stage, with the nature and controls on mineralisation still being established</li> <li>No Mineral Resource estimation procedure and classifications apply to the exploration data being reported.</li> </ul>
	<i>Whether sample compositing has been applied.</i>	<ul style="list-style-type: none"> <li>Sample compositing has not been applied</li> </ul>



Criteria	JORC Code Explanation	Commentary
Orientation of data in relation to geological structure	<i>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</i>	<ul style="list-style-type: none"> <li>The angled drill holes were directed as best as possible to assess multiple exploration targets and considering the wide variety of mineralisation geometries expected in an epithermal porphyry setting</li> <li>Available data suggest broad subvertical geometries to epithermal veining/stringers</li> <li>Mineralised zones encountered at the Spur Prospect are likely &gt;75% of the downhole intervals</li> </ul>
	<i>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.</i>	<ul style="list-style-type: none"> <li>The relationship between drilling orientation and key mineralised structures is under review as more oriented core is acquired, available information does not suggest a material sampling bias</li> <li>Mineralised zones encountered at the Spur and Consols Zones are likely &gt;80% of the downhole intervals</li> </ul>
Sample security	<i>The measures taken to ensure sample security.</i>	<ul style="list-style-type: none"> <li>Core was regularly returned from the drill site to a secured storage facility</li> <li>All samples are bagged into tied calico bags, before being transported to either the ALS Minerals Laboratory or SGS Laboratory facilities in Orange</li> <li>All sample submissions are documented via the ALS and SGS tracking systems with results reported via email</li> <li>Sample pulps and coarse reject material are retained and stored for a minimum of 3 years</li> </ul>
Audits or reviews	<i>The results of any audits or reviews of sampling techniques and data.</i>	<ul style="list-style-type: none"> <li>No audits or reviews have been conducted at this stage.</li> </ul>

## Section 2 - Reporting of Exploration Results

Criteria	JORC Code Explanation	Commentary
Mineral tenement and land tenure status	<i>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.</i>	<ul style="list-style-type: none"> <li>The exploration activity is located on tenement EL5238, in central western New South Wales, which is 100% owned by Waratah Minerals through its subsidiary Deep Ore Discovery Pty Ltd</li> <li>2.5% net smelter royalty exists via the purchase agreement in 2023</li> <li>Land Access Agreement in place with NSW Crown Lands and Common Trust.</li> <li>Community Consultation Management Plan will be developed as appropriate and in-line with proposed exploration activity.</li> </ul>
	<i>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.</i>	<ul style="list-style-type: none"> <li>EL5238 anniversary is 20 February 2031</li> <li>Renewal of the licence has recently been granted for 6 years</li> </ul>
Exploration done by other parties	<i>Acknowledgment and appraisal of exploration by other parties.</i>	<ul style="list-style-type: none"> <li>Previous explorers over parts of EL5238 include:</li> <li>Billiton (Shell Metals) and Cyprus Gold, active in 1970s and 1980s.</li> <li>Golden Cross Resources (GCR) (1997 – 2016) – with drilling results provided in ASX releases - 7 February 2012, 10 February 2012, 16 March 2012, 3 April 2012, 16 March 2012, 21 May 2012, 29 January 2013</li> <li>GCR had multiple JV partners, including Imperial Mining, RGC, Newcrest, Falcon Minerals, Cybele, and Calibre Resources.</li> <li>Deep Ore Discovery P/L purchased the project in 2018 – completed potential field geophysics/interp, some limited drilling activity.</li> </ul>
Geology	<i>Deposit type, geological setting and style of mineralisation.</i>	<ul style="list-style-type: none"> <li>EL5238 has potential to host a range of styles of mineralisation as indicated by examples in the eastern Lachlan Orogen. Mineralisation styles include:</li> <li>Alkalic porphyry (Wallrock-hosted) gold-copper deposits (e.g. Ridgeway, Cadia East)</li> <li>Alkalic porphyry (Intrusion-hosted) gold-copper deposits (e.g. Cadia Hill)</li> <li>Epithermal-porphyry gold deposits (e.g. Cowal, Boda)</li> <li>Skarn (oxidised) gold-copper deposits (e.g. Big Cadia/Little Cadia)</li> </ul>

Criteria	JORC Code Explanation	Commentary
Drill hole Information	<p>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:</p> <ul style="list-style-type: none"> <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>	<ul style="list-style-type: none"> <li>• See body of announcement.</li> </ul>
	<p>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.</p>	<ul style="list-style-type: none"> <li>• See body of announcement.</li> </ul>
Data aggregation methods	<p>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.</p>	<ul style="list-style-type: none"> <li>• Exploration results reported for uncut gold grades, grades calculated by length weighted average</li> <li>• Length weighted averages are used for any non-uniform intersection sample lengths. Length weighted average is (sum product of interval x corresponding interval assay grade), divided by sum of interval lengths and rounded to one decimal place</li> </ul>
	<p>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.</p>	<ul style="list-style-type: none"> <li>• Reported intercepts are calculated in leapfrog using 2 way compositing with lower cut off grades of 0.1, 0.5, 1, 2 and 3 g/t Au, each with maximum internal dilution of 5m. No top cut has been used.</li> </ul>
	<p>The assumptions used for any reporting of metal equivalent values should be clearly stated.</p>	<ul style="list-style-type: none"> <li>• No metallurgical recovery work has been completed on the project; however, recoveries have been assumed to be like that reported as target LOM copper and gold recoveries for the nearby Cadia Valley Operations and reported at 80.3% for Au and 85.2% for copper by Newcrest. Source - Cadia expansion &amp; Lihir recovery improvement projects approved. Market release 9th October 2020.</li> </ul>

Criteria	JORC Code Explanation	Commentary
Relationship between mineralisation widths and intercept lengths	<i>These relationships are particularly important in the reporting of Exploration Results.</i>	<ul style="list-style-type: none"> <li>The broad geometry of the mineralisation zones is subvertical. More drilling is required to better define geometries.</li> <li>True intervals are likely to be &gt;75% of downhole lengths.</li> </ul>
	<i>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</i>	<ul style="list-style-type: none"> <li>See body of announcement.</li> </ul>
	<i>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').</i>	<ul style="list-style-type: none"> <li>Significant assay results are calculated as length weighted downhole grade and are not reported as true width.</li> </ul>
Diagrams	<i>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.</i>	<ul style="list-style-type: none"> <li>See figures in body of report for drill hole locations.</li> </ul>
Balanced reporting	<i>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.</i>	<ul style="list-style-type: none"> <li>See body of announcement.</li> </ul>
Other substantive exploration data	<i>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.</i>	<ul style="list-style-type: none"> <li>Key exploration datasets include:</li> <li>3D IP Geophysics: reprocessing of a historic induced polarisation (IP) geophysical survey, including modern 3D inversions of the data, defines a strongly resistive target zone at the Spur-Spur South Target. The survey was originally completed in 2002 by Fugro Geophysics where a total of 6 arrays were completed, using 200m spaced dipoles along 200m spaced east-west oriented lines. Reprocessing and the production of 2D and 3D inversions of the data have greatly assisted interpretation. The major feature within the dataset, is the southerly plunging zone of resistivity beneath the Spur Zone, interpreted to represent a core within the system (e.g. epithermal core or proximal alkalic porphyry alteration) ASX WTM 5 December 2023</li> <li>ANT Geophysics: defines broad intrusive/porphyry complexes ASX WTM 24 May 2024</li> <li>Ground Magnetic Geophysics: reveals a structurally complicated architecture with</li> </ul>

Criteria	JORC Code Explanation	Commentary
		<p>several possible faulted extensions to mineralised zones and a main area of strong magnetite alteration centred on the Main Intrusive Complex</p> <ul style="list-style-type: none"> <li>See Section 1 – Sampling techniques and data for geometallurgy studies on gold deportment (GMET and GMET-XRF)</li> </ul>
Further work	<i>The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).</i>	<ul style="list-style-type: none"> <li>See body of report. Further exploration drilling is warranted to determine the extent of mineralisation and fully investigate a link between epithermal and porphyry mineralisation</li> </ul>
	<i>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</i>	<ul style="list-style-type: none"> <li>See figures in body of report</li> </ul>