

## Watershed Mineral Resources Restatement JORC Code (2012)

### HIGHLIGHTS

- Watershed Mineral Resource estimates have been classified and reported using the 2012 JORC Code and Guidelines
- Measured, Indicated and Inferred Resources total 49.3Mt at 0.14% WO<sub>3</sub> for 70,400 tonnes WO<sub>3</sub> at a 0.05% WO<sub>3</sub> cut off
- Vital and Tungsten Mining NL continue to work together to conclude the sale of the Watershed Tungsten Project

Vital Metals Limited (ASX: VML) is pleased to announce a review and restatement of the Watershed Mineral Resource under the 2012 JORC Code and Guidelines.

This information was prepared and first disclosed under the 2004 JORC Code. There has not been any material change since it was last reported. It is now restated and classified using the 2012 JORC Code and Guidelines.

### Watershed Tungsten Mineral Resources

WO <sub>3</sub> % Cut-off	Measured		Indicated		Inferred		Combined		Contained WO <sub>3</sub> Tonnes
	Mt	WO <sub>3</sub> %	Mt	WO <sub>3</sub> %	Mt	WO <sub>3</sub> %	Mt	WO <sub>3</sub> %	
0.05	9.47	0.16	28.36	0.14	11.49	0.15	49.32	0.14	70,400
0.1	4.42	0.25	11.51	0.24	4.73	0.26	20.66	0.25	50,700
0.15	2.69	0.34	6.66	0.32	2.83	0.35	12.18	0.33	40,400
0.2	1.93	0.41	4.56	0.39	2.05	0.41	8.53	0.4	34,100
0.3	1.09	0.53	2.4	0.52	1.17	0.54	4.66	0.53	24,600

Notes to accompany table:

- Mineral Resources reported are inclusive of Ore Reserves
- Numbers are rounded to two significant figures. Discrepancies in totals may occur due to rounding

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## Project Location

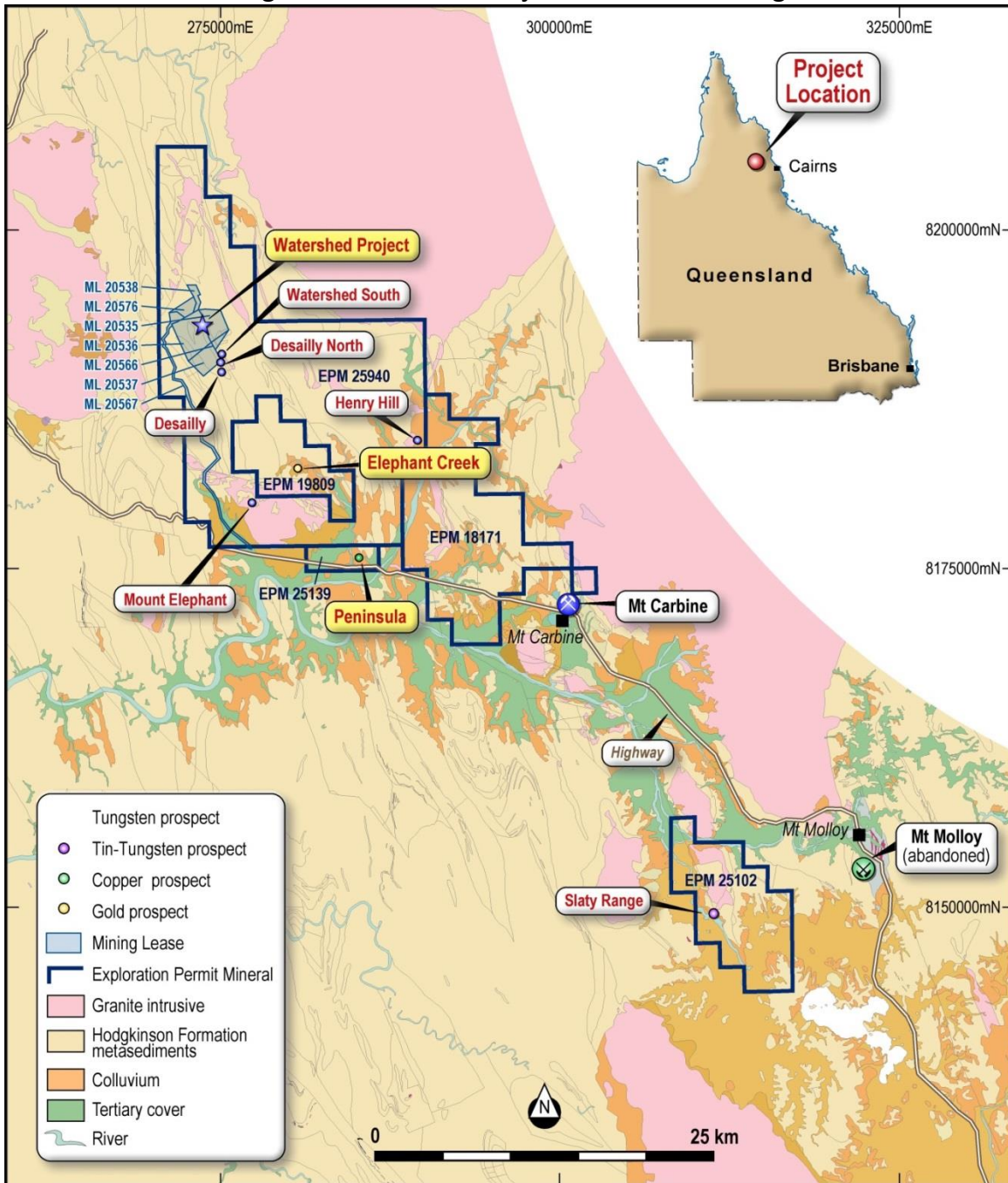
The Watershed tungsten project is in Far North Queensland (Figure 1) and has all necessary Indigenous Land Use Agreements, Environmental Authority and compensation agreements in place with the pastoral lease holders.

**Figure 1: Location of the Watershed Project**



The project comprises seven Mining Leases totalling 1,904 hectares (Figure 2). The Mining Leases are valid until 1st December 2033. All holdings are held by North Queensland Tungsten, a wholly-owned subsidiary of Vital Metals.

**Figure 2: Watershed Project Tenement Holdings**



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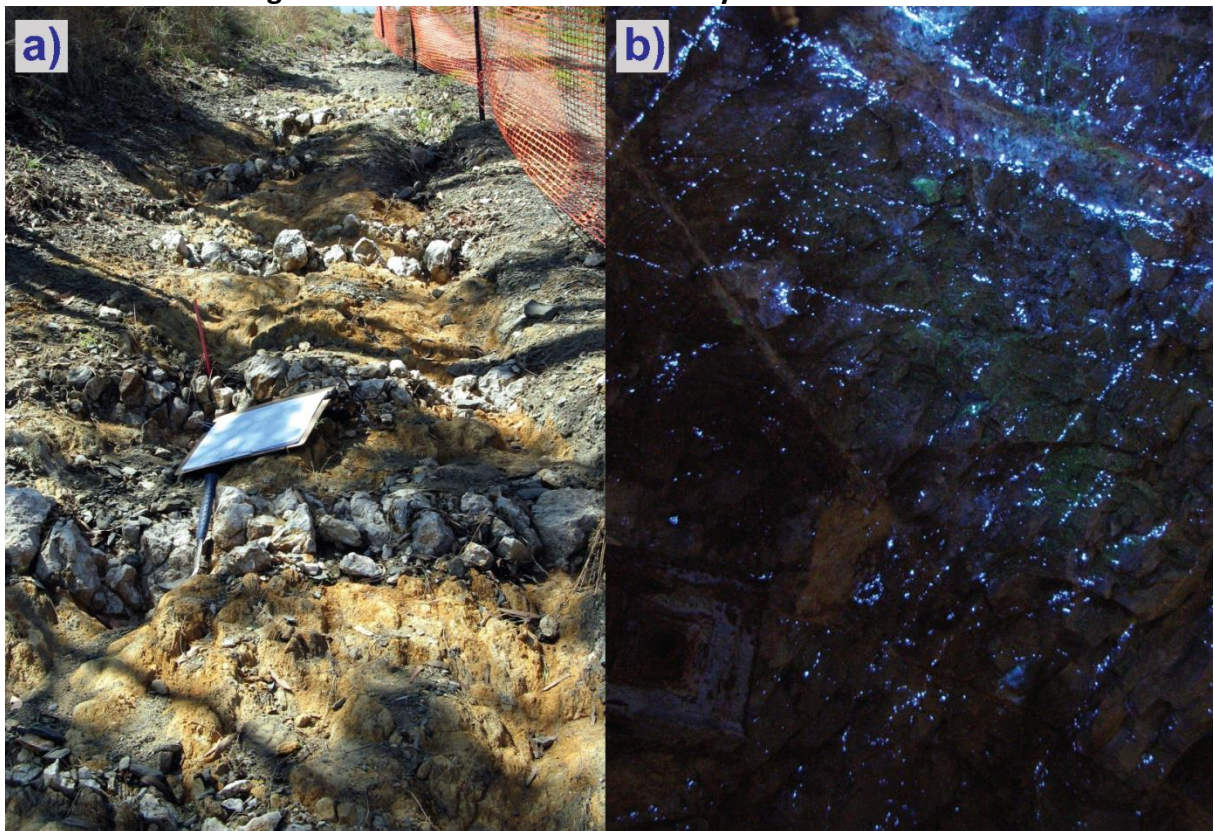
## Project Geology

The economically important mineral at Watershed is scheelite, which is hosted by calc-silicate and albite-muscovite altered units as well as by quartz-feldspar veins contained within these altered units. Scheelite is the sole economic tungsten-bearing mineral present within the deposit with wolframite reported as a trace mineral of no significance. Significantly the scheelite is a molybdenum-free variety (molybdenum in scheelite attracts penalties from APT smelters) and consequently fluoresces blue-white.

Three styles of mineralisation (Figure 3) are observed:

- East-west orientated quartz-scheelite vein swarms (a) with some locally developed north-south veins. The highest tungsten grades occur where veins are hosted by the calc-silicate altered units and biotite is present, and
- Disseminated scheelite mineralisation (b) within the calc-silicate altered calcareous limestone and arenaceous units.
- Albitised felsic dyke (not shown).

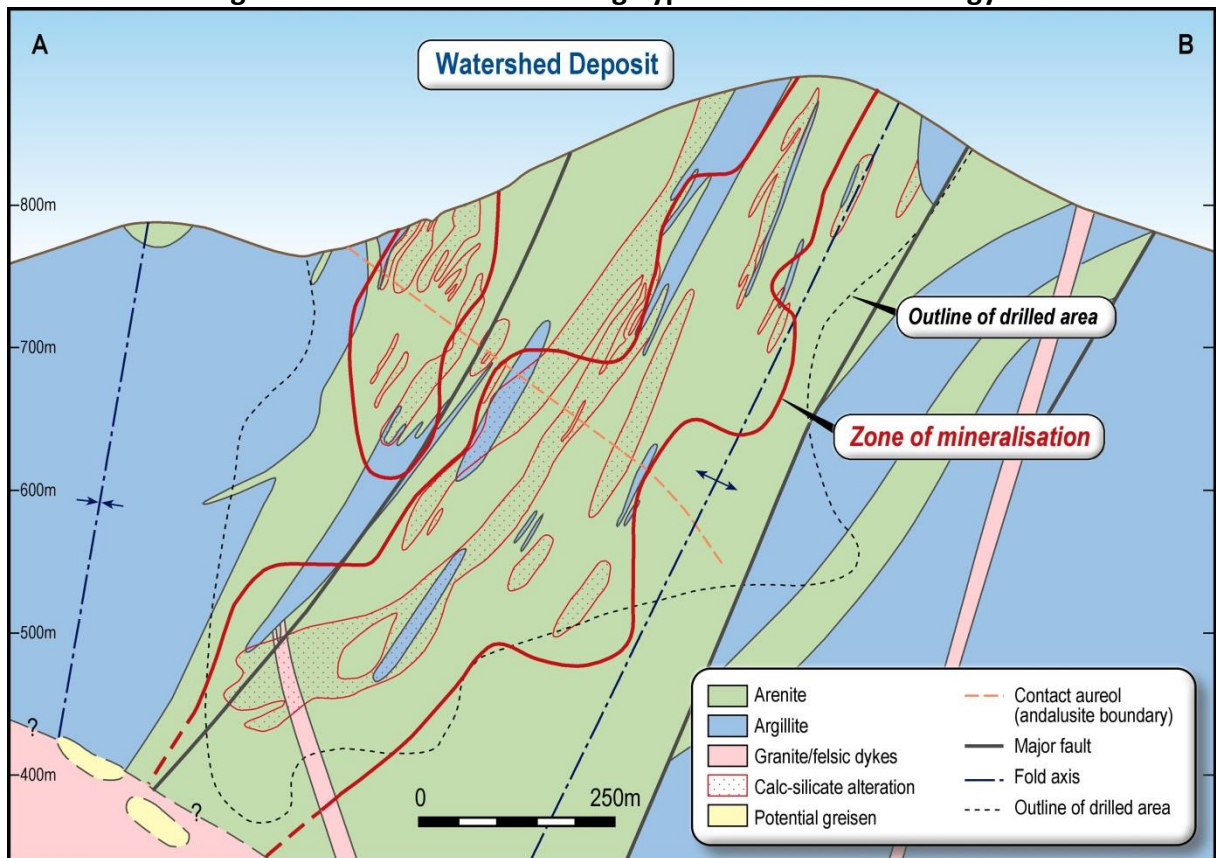
**Figure 3: Scheelite mineralisation styles at Watershed**



The accepted model for the genesis of the scheelite mineralisation (Figure 4) describes a sequence of magmatic/hydrothermal events broadly outlined as follows:

- Formation of calc-silicate (iron-poor skarn-type) rock units by a local metamorphic event involving the selective alteration of calcareous sediments generating porosity in the rocks ;
- An early hydrothermal event that introduced disseminated scheelite mineralisation filling the porosity, along with some scheelite-bearing quartz veining, to the calc-silicate altered rock units;
- A later hydrothermal event resulting in the major veining event, accompanied by a quartz-albite-biotite-pyrrhotite alteration event, adding extra and high-grade vein-type, scheelite mineralisation.

**Figure 4: Cross Section Showing Typical Watershed Geology**



## Exploration Drilling

Watershed was discovered by the Utah Development Company (Utah) in 1978 as a consequence of a regional exploration program for tungsten. This program included photogeological mapping as well as analysis of stream sediment samples for tungsten, tin, arsenic and copper. Utah identified 18 geochemical anomalies; the so called Anomaly 6 was classified as the most promising target and eventually became the Watershed deposit.

In 1984 the prospect passed to a joint venture between Utah and Peko Wallsend Operations Limited (Geopeko). Exploration work continued until mid-1986 when Geopeko withdrew from the joint venture. At this point the tungsten deposits were secured under a Mineral Development Licence by BHP-Utah in 1986.

Activities restarted in 2005 when Vital Metals took ownership of the Mineral Development Licence. Vital embarked on a program of exploration drilling to increase the size and confidence in the scheelite mineral resource.

An extensive exploration drilling database exists for Watershed. A summary of the drilling conducted by Vital and previous explorers including diamond drilling, channel sampling from costeans and reverse circulation drilling undertaken on the deposit between 1980 and 2011 is summarised in Table 1 and shown in Figure 5.

Vital conducted several drilling campaigns from mid-2006 with the majority of the drilling being diamond core using HQ2/NQ2. RC drilling has also been used at three areas to test closely spaced grade control patterns on 10m by 10m grid. The results of these programs were used to investigate continuity of mineralisation for classification of the resource estimates. Metallurgical and geotechnical holes were also drilled. The final drill campaign was carried out in 2011 with 8 holes designed to upgrade the confidence of the resource estimates and support the classification of the estimates and to test deeper parts of the mineralisation system.

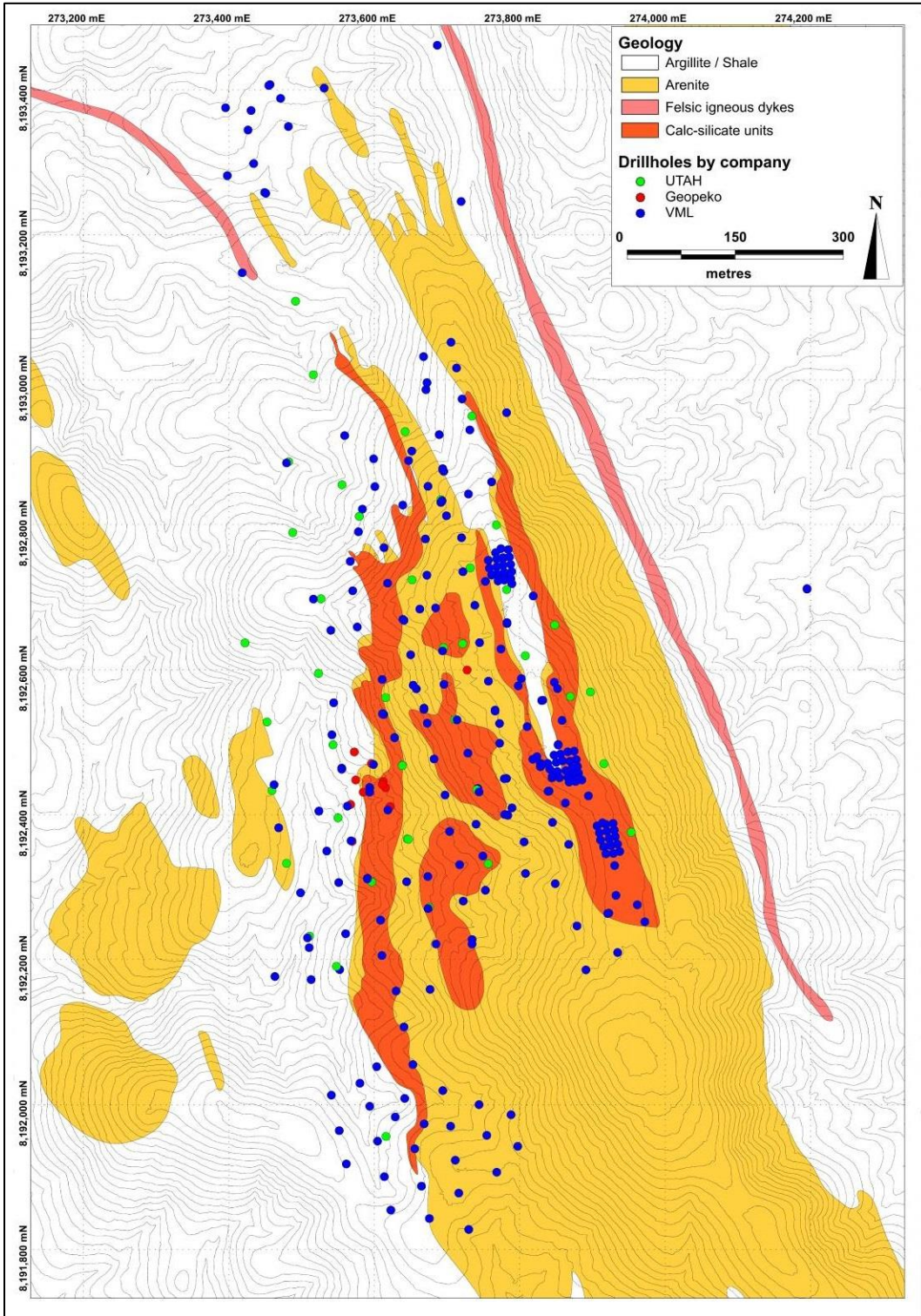
All of the available drill hole collars have been surveyed by differential GPS, the majority of holes have also been downhole surveyed. Topographic control has been gained via an airborne laser scanning survey over the deposit and surrounds.

Drill cores and chips have been sampled and assayed using appropriate techniques and have been validated under a detailed quality control process encompassing umpire assaying, reference standards, primary crush duplicates and pulp duplicates. An independent review of the quality control protocols and results has found no issues with the sampling and analysis of the drilling samples.

**Table 1: Watershed Drilling Programs 1980-2011**

Operator	Year	Prospect	Main purpose	Drill type	Number of drill holes	Drilling m
UDC	1980	WS	Test prospect	DD	1	121
	1981	WS	Test prospect	DD	20	4,802
	1982	WS	Test prospect /	DD	22	6,574
			resource			
	1983	WS-S	Test prospect	DD	8	1,020
		DS	Test prospect	DD	3	216
		DS-N	Test prospect	DD	2	197
	1984	DS	Test prospect	DD	5	596
<b>Total drilling UDC</b>					<b>61</b>	<b>13,526</b>
Geopeko	1985	WS	Test prospect	DD	12	826
		WS	Geology	Costean	14	1,302
<b>Total drilling / costean Geopeko</b>					<b>26</b>	<b>2,128</b>
VML	2005	WS	Metallurgy	DD	3	558
	2006	WS	Resource	DD	55	13,546
	2007	WS	Environment	DD	6	233
			Resource	DD	79	14,307
				RC	19	1,593
			Metallurgy	DD	13	1,280
			Grade control	RC	58	3,872
	2008	WS	Geotech	DD	7	810
			Environment	DD	8	355
			Resource	DD	24	3,642
	2011	WS	Resource	DD	8	1,504
<b>Total drilling VML</b>				<b>DD</b>	<b>203</b>	<b>36,236</b>
				<b>RC</b>	<b>77</b>	<b>5,465</b>
				<b>all</b>	<b>266</b>	<b>41,701</b>
<b>Summary</b>						
Total drilling at Watershed				DD	258	48,559
Total drilling at Watershed				RC	77	5,465
Total costean at Watershed				costean	14	1,302
<b>Total drilling / costean at Watershed</b>				<b>all</b>	<b>349</b>	<b>55,326</b>
Total drilling at Watershed South				DD	8	1,020
Total drilling Desailly				DD	2	197
Total drilling Desailly North				DD	8	812
<b>Total drilling / costean Watershed and southern prospects</b>				<b>all</b>	<b>367</b>	<b>57,355</b>

Figure 5: Map of Watershed Collars Drilled by Company



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## Mineral Resources

In 2012, Vital Metals appointed H&S Consultants Pty Ltd ("H&SC") to complete the latest Mineral Resource estimates for the Watershed deposit. This update followed on from the Hellman & Schofield 2008 model and used the same Multiple Indicator Kriging ("MIK") modelling method with additional drilling from the Vital Metals 2011 program.

The exploration database on which the Watershed resource estimates are based contains over 243 holes and 15 costeans for a total of 54,024 metres of which 47,983 metres are diamond core. The entire diamond core library, including the first discovery hole is available on site for inspection. All drill coordinates and resource modelling has been referenced in the AMG84 Zone 55 coordinate system

In 2007, Vital conducted an RC drilling program over three sub-areas. This drilling was set out on a tight 10m by 10m 'grade control' pattern and the subsequently modelled results demonstrated a favourable comparison with the much broader exploration spaced diamond drilling over the same volume.

All drill cores and chips have been sampled and assayed under a detailed quality control process encompassing umpire assaying, reference standards, primary crush duplicates and pulp duplicates. Independent review of the quality control protocols and results has found the data to be suitable for inclusion in the DFS.

The resource estimates were generated from 26,226 2m composites. Five mineralised domains were recognized with an additional background grade domain. Domaining of the composites was done visually on the tungsten grades using the H&SC in-house GS3 software's visually driven domain chopper tool (nominal 0.05% WO<sub>3</sub> cut off). Geological wireframes from a 20m level interpretation were used as a guide to the domain selection in conjunction with the colour coded composites for WO<sub>3</sub> and the intensity of drilling information. Two sub-domains were created for the oxidation states based on the topography and base of partial oxidation surfaces.

A review of the summary statistics for the mineral domains indicated skewed data, possibly multiple populations, and confirms that MIK is an appropriate modelling technique. No top cuts were applied to the composite data as there were no significant outliers in the data. The MIK modelling process is designed to work with skewed data.

Within each mineral domain, tungsten grade continuity was characterised by indicator variograms at 13 indicator thresholds spanning the global range of grades.

Block dimensions are 10mE by 25mN and 15mRL with a selective mining unit ("SMU") of 2.5mE by 5mN by 2.5mRL. The strike dimension chosen approximates to the average drill spacing in the modelled resource areas and is consistent with the MIK modelling method. The vertical

direction is a function of the steep dip of the mineralisation. The thinnest dimension was designed to reflect anisotropy of mineralisation.

A three pass search strategy was employed to locate composites for use in the tungsten block grade interpolation and to produce the three resource confidence categories. Pass 1 (Measured) used a search ellipse with X, Y and Z dimensions of 15 by 30 by 30m, respectively, with the axes rotated 15° to NNW, dipping to the west 75° and plunging 15° to the south. Minimum number of data was 16 and 4 octants were used. Passes 2 and 3 used an expanded search of 26mE by 52.5mN by 52.5mRL with the minimum samples used in Pass 2 (Indicated) being 16 (and 4 octants), reducing to 8 (and 2 octants) for Pass 3 (Inferred).

A block support adjustment was used to estimate the recoverable tungsten resources within modelled blocks. The shape of the local block tungsten grade distribution has been assumed lognormal and an additional adjustment for the "Information Effect" has been applied to arrive at the final resource estimates. The SMU was assumed to be 2.5mE by 5mN by 2.5mRL based on advice from Vital Metals.

Vital carried out a continuous program of density measurement with 13,256 measurements taken to date. Whole one metre samples were measured by water immersion on site using a specially constructed testing unit. The core is not oven dried or waxed. However it is considered that the lack of oven drying would only result in negligible errors due to the general competence of the material and lack of obvious pore space in the rocks (McDonald Speijers 2009). There is little variation of the bulk density values within the fresh material, which accounts for the majority of measurements. An average density of 2.45t/m<sup>3</sup> was applied to partially oxidised material and 2.74t/m<sup>3</sup> was applied to fresh material.

The search passes have been used to allocate the different resource categories to the blocks, with the parameters being consistent with H&SC's experience of the mineralisation styles. The derivation of the search pass category for each panel is based on the applied search ellipse radii and the resulting number and configuration of the data used in the block estimates ie a function of drillhole spacing.

This classification scheme takes into account the uncertainty in the estimates related to the proximity and distribution of the informing composites.

Other factors that have been included in the classification:

1. Hole collar location and spatial position of drillhole
2. Sampling methods
3. Analytical methods
4. Geological logging

5. Density data
6. QAQC
7. Geological model
8. Previous resource estimates
9. Drillhole orientation and spacing
10. Variography and understanding of grade distribution
11. Estimation method including search parameters, panel size, SMU, orientation of panels, minimum number of data points, minimum number of octants

Classification of the resources was also based in part on the assumption that Vital plan to selectively mine the deposit via an open pit method.

The current Mineral Resource estimates for the Watershed deposit consists of Measured, Indicated and Inferred Mineral Resources (Table 2 and Figure 6).

This information was prepared and first disclosed under the 2004 JORC Code<sup>1</sup>. It is now restated and classified using the 2012 JORC Code and Guidelines. There has not been any material change since it was last reported.

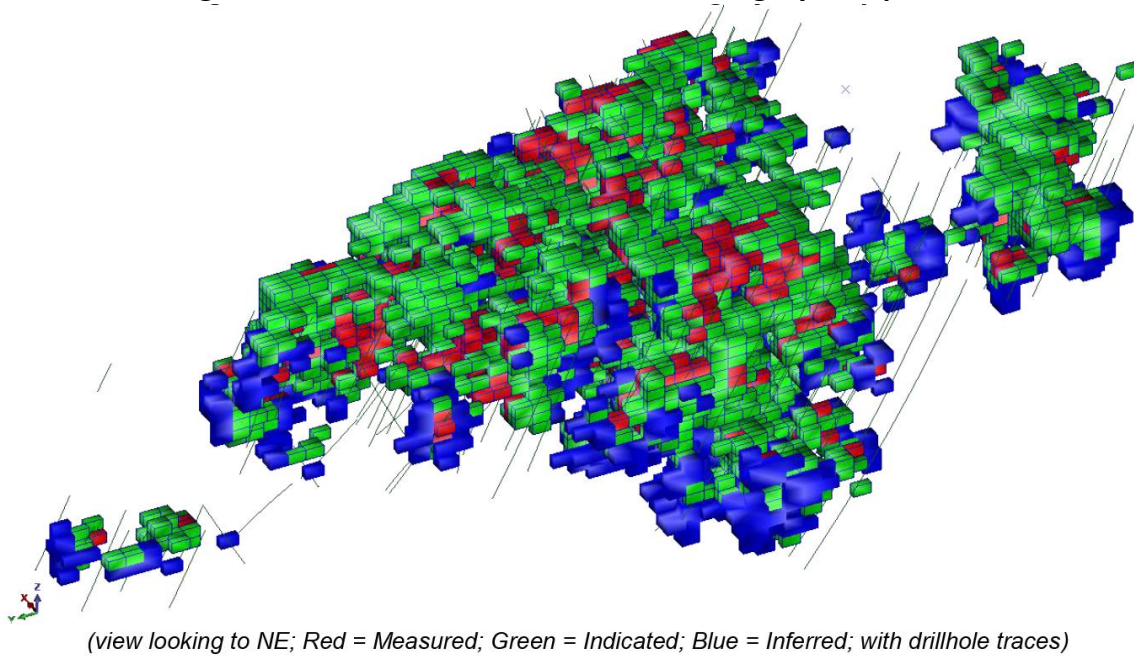
**Table 2: Watershed Deposit Mineral Resources**

WO <sub>3</sub> % Cut off	Measured		Indicated		Inferred		Combined		Contained WO <sub>3</sub> Tonnes
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0.1	4.42	0.25	11.51	0.24	4.73	0.26	20.66	0.25	50,700
0.15	2.69	0.34	6.66	0.32	2.83	0.35	12.18	0.33	40,400
0.2	1.93	0.41	4.56	0.39	2.05	0.41	8.53	0.4	34,100
0.3	1.09	0.53	2.4	0.52	1.17	0.54	4.66	0.53	24,600

Notes to table: Mineral Resources reported are inclusive of Ore Reserves. Numbers are rounded to two significant figures. Discrepancies in totals may occur due to rounding.

<sup>1</sup> Reported July 30 2012, Quarterly Activities & Cash flow Report

**Figure 6: Watershed Mineral Resource Category Oblique View**



## Definitive Feasibility Study

A DFS<sup>2</sup> completed in 2014 identified a simple mining method for the extraction of tungsten-bearing material using an open cut mining operation utilising excavators and trucks, with no pre strip required.

The current mine plan is to have benches of 2.5m in height. Grade control and ore blocking will be based on sampling from blast holes at a spacing of approximately 5m across strike and 5.8m along strike with samples taken at 1m intervals down-hole.

Metallurgical test work has been completed on bulk samples taken from adits and surficial samples as well as a number of diamond drill holes all of which are considered representative of the deposit. Ore is to be processed into a readily saleable concentrate using simple processing involving ore sorting, spirals and flotation.

Variability test work indicates that the ore properties do not differ significantly within the deposit. No significant variation of recoveries has been observed within the deposit.

No deleterious elements or penalty elements of significance have been identified; the scheelite is molybdenum-free.

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<sup>2</sup> ASX Announcement 17 September 2014

Metallurgical processing of mined material as;

- Dry crushing
- X-ray transmission ore sorting
- Gravity separation utilising spirals
- Flotation

The metallurgical process uses established technologies. Flotation testwork has been completed in China by a specialist group.

The project is fully permitted with Mining Leases, Environmental Authority, Indigenous Land Use Agreement and land owner agreements in place.

Watershed Ore Reserves were first reported on 17 September 2014 using 2012 JORC Code and Guidelines.

All Proven Ore Reserves have been derived from Measured Mineral Resources and all Probable Ore Reserves have been derived from Indicated Mineral Resources.

There have been no material changes to the Ore Reserves since they were initially reported; no mining has commenced and no additional mining studies have been completed.

### Watershed Tungsten Ore Reserves

Category	Quantity (Mt)	WO <sub>3</sub> Content (t)	Grade (% WO <sub>3</sub> )
Proven	6.4	10,000	0.16
Probable	15.0	21,000	0.14
<b>Total Ore Reserve</b>	21.3	31,000	0.15
Inferred Ore	1.7	2,400	0.14
<b>Waste Excluding Inferred Mt</b>		66.2	
<b>Total Material Mt</b>		89.3	
<b>Strip Ratio</b>		3.16	

Notes to accompany table:

- Ore Reserves based on an APT price of US\$375 and FX0.90
- Numbers are rounded to two significant figures. Discrepancies in totals may occur due to rounding

## Sale of Watershed Tungsten Project

Vital Metals agreed to sell the Watershed Tungsten Project in north Queensland to Tungsten Mining NL for \$15 million cash (ASX announcement 2 May 2018).

Vital provided an update on 29 June 2018 that it had agreed with Tungsten Mining to extend the date by which all conditions precedent under the Agreement must be met, or waived, by approximately two weeks to 13 July 2018.

Vital and Tungsten Mining are continuing to work together to satisfy all conditions under the Agreement as soon as possible.

**ENDS**

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**Competent Person's Statement**

*The information in this report that relates to exploration targets, exploration drilling data, exploration results & mineralisation is based on information compiled by Mr Mark Strizek, who is a Member of The Australasian Institute of Mining and Metallurgy. Mr Strizek is a full time employee of the Company 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 Strizek consents to the inclusion in the announcement of the matters based on the information in the form and context in which it appears.*

*The information in this report that relates to Mineral Resources for the Watershed Deposit is based on information evaluated by Mr Simon Tear who is a Member of The Australasian Institute of Mining and Metallurgy (MAusIMM) and who has sufficient experience 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 Tear is a Director of H&S Consultants Pty Ltd and he consents to the inclusion of the estimates in the report of the Mineral Resource in the form and context in which they appear.*

*This Ore Reserves statement has been compiled in accordance with the guidelines defined in the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code – 2012 Edition). The Ore*

*Reserves have been compiled by Mr Steve Craig of Orelogy Group Pty Ltd, who is a Fellow of Australasian Institute of Mining and Metallurgy. Mr Craig has had sufficient experience in Ore Reserve estimation relevant to the style of mineralisation and type of deposit under consideration to qualify as Competent Person as defined in the 2012 Edition of the "Australasian Code for Reporting of Mineral Resources and Ore Reserves". Mr Craig consents to the inclusion in the announcement of the matters based on his information in the form and context in which it appears.*

### **Forward looking statements**

*Certain written statements contained or incorporated by reference in this new release, including information as to the future financial or operating performance of the Company and its projects, constitute forward-looking statements. All statements, other than statements of historical fact, are forward-looking statements. The words "believe", "expect", "anticipate", "contemplate", "target", "plan", "intend", "continue", "budget", "estimate", "may", "will", "schedule" and similar expressions identify forward-looking statements.*

*Forward-looking statements include, among other things, statements regarding targets, estimates and assumptions in respect of tungsten, gold or other metal production and prices, operating costs and results, capital expenditures, mineral reserves and mineral resources and anticipated grades and recovery rates. Forward-looking statements are necessarily based upon a number of estimates and assumptions related to future business, economic, market, political, social and other conditions that, while considered reasonable by the Company, are inherently subject to significant uncertainties and contingencies. Many known and unknown factors could cause actual events or results to differ materially from estimated or anticipated events or results reflected in such forward-looking statements.*

*Such factors include, but are not limited to: competition; mineral prices; ability to meet additional funding requirements; exploration, development and operating risks; uninsurable risks; uncertainties inherent in ore reserve and resource estimates; dependence on third party smelting facilities; factors associated with foreign operations and related regulatory risks; environmental regulation and liability; currency risks; effects of inflation on results of operations; factors relating to title to properties; native title and aboriginal heritage issues; dependence on key personnel; and share price volatility and also include unanticipated and unusual events, many of which are beyond the Company's ability to control or predict.*

*For further information, please see the Company's most recent annual financial statement, a copy of which can be obtained from the Company on request or at the Company's website: [www.vitalmetals.com.au](http://www.vitalmetals.com.au). The Company disclaims any intent or obligation to update any forward-looking statements, whether as a result of new information, future events or results or otherwise. All forward-looking statements made in this new release are qualified by the foregoing cautionary statements. Investors are cautioned that forward-looking statements are not guarantees of future performance and, accordingly, not to put undue reliance on such statements.*

## JORC Code, 2012 Edition – Table 1 report

### Section 1 Sampling Techniques and Data

(Criteria in this section apply to all succeeding sections.)

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul style="list-style-type: none"> <li>• <i>Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc.). These examples should not be taken as limiting the broad meaning of sampling.</i></li> <li>• <i>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</i></li> <li>• <i>Aspects of the determination of mineralisation that are Material to the Public Report.</i></li> <li>• <i>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></li> </ul>	<p>Diamond Drilling was used to obtain 1m samples over mineralised zones which were selected by the use of shortwave UV lamping for Scheelite. Samples were taken 2m either side of identified mineralised intervals to ensure mineralised intervals are adequately sampled</p> <p>Reverse circulation drilling was used to obtain 1m samples from which 5kg was sent to the laboratory</p> <p>14 costeans were excavated for 1256m and 676 samples were collected for tungsten assay from seven of the costeans. The remaining costeans established solely for geological mapping.</p> <p>Once the costeans were excavated samples were cut using a diamond saw and samples were taken over metre intervals. All samples were subjected to the same sampling protocol as used in the exploration drilling program at the time and were part of a rigorous check assay program</p>
Drilling techniques	<ul style="list-style-type: none"> <li>• <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-sampling bit or other type, whether core is oriented and if so,</i></li> </ul>	<p>Data is a combination of reverse circulation, diamond drilling and costean sampling with a diamond saw. Reverse circulation and costean sampling represent a very minor proportion of the entire</p>



Criteria	JORC Code explanation	Commentary
	<i>by what method, etc.).</i>	<p>dataset</p> <p>Diamond drilling has been completed predominantly at NQ2 diameter with the pre-collar completed at HQ3</p> <p>Historical core was partially orientated, comprehensive core orientation has been undertaken by Vital Metals on some 134 holes totalling 18,743 metres of successfully oriented core</p> <p>Reverse circulation drilling was completed with a face sampling bit</p>
<i>Drill sample recovery</i>	<ul style="list-style-type: none"> <li>• <i>Method of recording and assessing core and chip sample recoveries and results assessed.</i></li> <li>• <i>Measures taken to maximise sample recovery and ensure representative nature of the samples.</i></li> <li>• <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></li> </ul>	<p>Geologist and/or driller recorded recovery during drilling. As the mineralised zones are extremely competent no measures were required to maximise sample recovery</p> <p>No relationship between sample grade and recovery has been demonstrated</p> <p>No significant bias has been identified</p>
<i>Logging</i>	<ul style="list-style-type: none"> <li>• <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></li> <li>• <i>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography.</i></li> <li>• <i>The total length and percentage of the relevant intersections logged.</i></li> </ul>	<p>Core was geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation.</p> <p>Geotechnical logging of select drill holes has been completed by geotechnical engineers</p> <p>All core drilled by Vital Metals has been photographed, some historical core has also been photographed</p> <p>100% of relevant mineralised intersections have been logged, 52,982m of logging are recorded in the database</p>
<i>Sub-sampling</i>	<ul style="list-style-type: none"> <li>• <i>If core, whether cut or sawn and whether quarter, half or all core taken.</i></li> </ul>	<p>Core was cut in half with a core saw over mineralised intervals</p>

Criteria	JORC Code explanation	Commentary
techniques and sample preparation	<ul style="list-style-type: none"> <li>• <i>If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry.</i></li> <li>• <i>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</i></li> <li>• <i>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</i></li> <li>• <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></li> <li>• <i>Whether sample sizes are appropriate to the grain size of the material being sampled.</i></li> </ul>	<p>and half core was submitted to the laboratory for analysis</p> <p>Reverse circulation chips were split using a 3 tier riffle splitter</p> <p>Sample preparation involved drying, crushing (where necessary), rotary splitting, pulverizing to 95% passing 106micron, riffle split to yield 300-400g subsample. This sample preparation methodology is industry standard</p> <p>A detailed QAQC program has been implemented which employs both blanks and standards as well as duplicates of coarse and pulp rejects from the sample preparation process</p> <p>Sample sizes are appropriate to the grain size of the material being sampled</p>
Quality of assay data and laboratory tests	<ul style="list-style-type: none"> <li>• <i>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</i></li> <li>• <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></li> <li>• <i>Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.</i></li> </ul>	<p>Analysis by Vital Metals was initially completed by pressed powder XRF, values that were over 635ppm W cut-off were then re-assayed by lithium borate fusion and inductively coupled plasma-atomic emission spectroscopy (ICPAES) which returns greater accuracy at grades &gt;635ppm W than the pressed powder method</p> <p>Vital Metals' QC program covered a number of aspects:</p> <ul style="list-style-type: none"> <li>○ Assay orientation work comparing pressed powder XRF with glass fusion XRF (2006-2011)</li> <li>○ Umpire assaying</li> <li>○ Submission of reference standards</li> <li>○ Primary crush duplicates</li> <li>○ Pulp duplicates</li> </ul>

Criteria	JORC Code explanation	Commentary
		<p>Historical results have been validated by re-assaying a number of holes</p> <p>A number of external parties have stated that the QAQC data, historical and recent, is of a suitable quality to conduct Mineral Resources estimates</p>
Verification of sampling and assaying	<ul style="list-style-type: none"> <li>• <i>The verification of significant intersections by either independent or alternative company personnel.</i></li> <li>• <i>The use of twinned holes.</i></li> <li>• <i>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</i></li> <li>• <i>Discuss any adjustment to assay data.</i></li> </ul>	<p>Site visits have been completed by the competent person for Mineral Resources who has verified a number of the significant intersections.</p> <p>Twinning and quarter coring has been used to verify historical and recent intersections.</p> <p>No adjustment to assay data has been made</p>
Location of data points	<ul style="list-style-type: none"> <li>• <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></li> <li>• <i>Specification of the grid system used.</i></li> <li>• <i>Quality and adequacy of topographic control.</i></li> </ul>	<p>Of the available drill hole collars all but 31 have been surveyed by differential GPS. It is not considered that this poses any risk to the resource estimate due the drill spacing and predominantly shallow nature of these holes</p> <p>The majority of recent holes have been downhole surveyed with a reflex tool, historical holes were surveyed downhole with an Eastman Camera single shot instrument</p> <p>Topographic control has been gained via an airborne laser scanning survey over the deposit and surrounds with a standard error 0.05m</p> <p>The grid system currently used is AMG84 Z55</p>
Data spacing and	<ul style="list-style-type: none"> <li>• <i>Data spacing for reporting of Exploration Results.</i></li> <li>• <i>Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity</i></li> </ul>	<p>Drill spacing is nominally 50m, closing to 25m locally and is 10m in the RC grade control test areas</p>

Criteria	JORC Code explanation	Commentary
<i>distribution</i>	<p><i>appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.</i></p> <ul style="list-style-type: none"> <li>• <i>Whether sample compositing has been applied.</i></li> </ul>	<p>The drill hole spacing is sufficient to establish the degree of geological and grade continuity appropriate or the Mineral Resource and Ore Reserve estimation procedures and resultant classifications applied</p> <p>Unconstrained down hole compositing at 2m lengths was completed with the inclusion of the detailed RC drilling data for a total of 26,226 composites</p>
<i>Orientation of data in relation to geological structure</i>	<ul style="list-style-type: none"> <li>• <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></li> <li>• <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></li> </ul>	<p>The Utah Development Corporation surface holes were drilled at angles between -55° and sub-vertical, at azimuths approximating to 60-80° and 340°. Recent holes drilled by Vital Metals Ltd have been orientated to -60° to 348°, the reason for the change in orientation is the recognition that mineralisation is located both as disseminations and veins which are approximately normal to the strike of the deposit</p> <p>Results from both sampling orientations return similar results, no significant bias is observed</p>
<i>Sample security</i>	<ul style="list-style-type: none"> <li>• <i>The measures taken to ensure sample security.</i></li> </ul>	<p>Samples were issued identification numbers through the use of ticket books. Industry standard measures taken to ensure sample security</p>
<i>Audits or reviews</i>	<ul style="list-style-type: none"> <li>• <i>The results of any audits or reviews of sampling techniques and data.</i></li> </ul>	<p>Initial reviews were by RSG and Coffey and later reviews by McDonald Speijers, the data was considered to be of suitable quality to conduct resource estimates</p>

## Section 2 Reporting of Exploration Results

(Criteria listed in the preceding section also apply to this section.)

Criteria	JORC Code explanation	Commentary
<i>Mineral tenement and land tenure status</i>	<ul style="list-style-type: none"> <li>• <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></li> <li>• <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></li> </ul>	<p>Watershed is located on a number of Mining Leases (ML) which were approved on 1 December 2013 for a period of 20 years, the ML's are;</p> <ul style="list-style-type: none"> <li>○ ML20535</li> <li>○ ML20536</li> <li>○ ML20537</li> <li>○ ML20538</li> <li>○ ML20566</li> <li>○ ML20567</li> <li>○ ML20576</li> </ul> <p>All Approvals and Permitting have been completed, these include;</p> <ul style="list-style-type: none"> <li>○ Environmental Authority</li> <li>○ Indigenous Land Use Agreement</li> <li>○ Cultural Heritage Management Plan</li> <li>○ Agreements with Landholders</li> </ul> <p>Permit tenure is secure</p>
<i>Exploration done by other parties</i>	<ul style="list-style-type: none"> <li>• <i>Acknowledgment and appraisal of exploration by other parties.</i></li> </ul>	<p>Utah Development Company (Utah) discovered Watershed after a regional stream sediment sampling program completed in 1978. The discovery hole (MWD001) was drilled in 1980. Peko Wallsend Operations Ltd (PWOL) incorporated a joint venture with Utah in 1984 and subsequently withdrew from the project in mid-1986</p> <p>Work completed by Utah and PWOL was to a very high standard, and has typically been proven to be reliable.</p>

Criteria	JORC Code explanation	Commentary
Geology	<ul style="list-style-type: none"> <li>• <i>Deposit type, geological setting and style of mineralisation.</i></li> </ul>	<p>The Watershed project area is dominated by arenaceous and argillaceous metamorphosed sediments of the Hodgkinson Formation. These rocks form a prominent ridge that hosts the known tungsten mineralisation. Minor chert and quartz feldspar porphyry have been mapped within the project area, the latter as a persistent dyke to the east of the Watershed deposit.</p> <p>The dominant structural fabric is an upright, north-northwest trending cleavage. This cleavage corresponds broadly with the fabric developed during the fourth regional deformation. The nearest exposure of granitoid lithologies to the Watershed property is a northwest-trending porphyritic granitoid exposed approximately two kilometres to the east of the project area.</p> <p>Tungsten mineralisation occurs exclusively as scheelite over a strike length of approximately 3,000 metres sub-parallel to the regional north-northwest trend. The scheelite is hosted by calc-silicate and albite-muscovite altered rock units and by quartz-feldspar veins invading both the altered units and the enclosing unaltered host rocks. Disseminations of scheelite may also be present in the vein selveges and nearby fracture planes.</p> <p>The mineralisation is observed to occur predominantly in quartz-scheelite vein swarms. These are usually oriented east-west with some locally developed north-northwest trending veins (parallel to the dominant foliation) although observation from closely spaced drilling indicates that some shallow dipping mineralised structures may also be present. Vein widths observed in drill core range from 0.5cm to 100cm. Minor pyrrhotite, pyrite and arsenopyrite may sometimes be present.</p>

Criteria	JORC Code explanation	Commentary
		<p>The veins display the highest tungsten grade, where biotite is present in addition to calc-silicate alteration. The mineralisation vein swarms are best developed in the arenaceous units and are relatively attenuated in the argillaceous units. Quartz-scheelite veins are most abundant in the arenite in the hinge zone of the anticline which forms the Watershed Ridge.</p>
<p><i>Drill hole Information</i></p>	<ul style="list-style-type: none"> <li>• <i>A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:</i> <ul style="list-style-type: none"> <li>○ <i>easting and northing of the drill hole collar</i></li> <li>○ <i>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</i></li> <li>○ <i>dip and azimuth of the hole</i></li> <li>○ <i>down hole length and interception depth</i></li> <li>○ <i>hole length.</i></li> </ul> </li> <li>• <i>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.</i></li> </ul>	<p>No exploration results being reported</p>
<p><i>Data aggregation methods</i></p>	<ul style="list-style-type: none"> <li>• <i>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.</i></li> <li>• <i>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.</i></li> </ul>	<p>No exploration results being reported</p>

Criteria	JORC Code explanation	Commentary
	<ul style="list-style-type: none"> <li>The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> </ul>	
Relationship between mineralisation on widths and intercept lengths	<ul style="list-style-type: none"> <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>	No exploration results being reported
Diagrams	<ul style="list-style-type: none"> <li>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.</li> </ul>	No exploration results being reported
Balanced reporting	<ul style="list-style-type: none"> <li>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.</li> </ul>	No exploration results being reported
Other substantive exploration data	<ul style="list-style-type: none"> <li>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.</li> </ul>	No exploration results being reported
Further work	<ul style="list-style-type: none"> <li>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out</li> </ul>	Deposit is open to depth and there are additional targets along strike



Criteria	JORC Code explanation	Commentary
	<p><i>drilling).</i></p> <ul style="list-style-type: none"><li>• <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></li></ul>	

### Section 3 Estimation and Reporting of Mineral Resources

(Criteria listed in section 1, and where relevant in section 2, also apply to this section.)

Criteria	JORC Code explanation	Commentary
<i>Database integrity</i>	<ul style="list-style-type: none"> <li>• <i>Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes.</i></li> <li>• <i>Data validation procedures used.</i></li> </ul>	<p>Digital templates with lookup tables and fixed formatting are set in the database. Data transfer between the laboratory and Vital is electronic in nature. Historical data has been transcribed and validated by Vital staff.</p> <p>Data upon loading is imported into a relational database with keyed lookup values and acceptable data ranges. Data is then validated for overlapping ranges or incongruent data by visual plotting and inspection.</p> <p>Limited validation was conducted by H&amp;S Consultants (H&amp;SC) to ensure the drill hole database is internally consistent. Validation included checking that no assays, density measurements or geological logs occur beyond the end of hole and that all drilled intervals have been geologically logged. The minimum and maximum values of assays and density measurements were checked to ensure values are within expected ranges.</p> <p>H&amp;SC has not performed detailed database validation or audit and Vital personnel take responsibility for the accuracy and reliability of the data used to estimate the Mineral Resources.</p>
<i>Site visits</i>	<ul style="list-style-type: none"> <li>• <i>Comment on any site visits undertaken by the Competent Person and the outcome of those visits.</i></li> <li>• <i>If no site visits have been undertaken indicate why this is the case.</i></li> </ul>	<p>Simon Tear, consultant geologist with H&amp;S Consultants, visited the Watershed Project in June 2014 to review the exploration procedures. No issues were identified and all procedures were considered to be of acceptable standards</p>
<i>Geological</i>	<ul style="list-style-type: none"> <li>• <i>Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.</i></li> </ul>	<p>Domaining of the data has been recognised as difficult with a variety of mineral types over-printing each other e.g. the</p>

Criteria	JORC Code explanation	Commentary
<i>interpretation</i>	<ul style="list-style-type: none"> <li>• <i>Nature of the data used and of any assumptions made.</i></li> <li>• <i>The effect, if any, of alternative interpretations on Mineral Resource estimation.</i></li> <li>• <i>The use of geology in guiding and controlling Mineral Resource estimation.</i></li> <li>• <i>The factors affecting continuity both of grade and geology.</i></li> </ul>	<p>historically interpreted E-W scheelite vein systems, disseminated scheelite mineralisation in N-S striking arenites and the complex interdigitation of N-S striking barren siltstones with mineralised arenites, particularly in the north of the area. Work by H&amp;SC on 20m level plans identified areas with a predominance of arenite-hosted scheelite mineralisation, these zones appear to form coherent bodies. These zones are used to support the domaining of the drilling data.</p> <p>The deposit shows a NNW lithological trend with continuity of rock types in this orientation.</p> <p>Mineralisation shows continuity in the NNW orientation with a westerly dip and WSW plunge.</p> <p>There are possible alternative geological interpretations but H&amp;SC has circumvented this by using the Multiple Indicator Kriging (MIK) method of estimation (see below)</p>
<i>Dimensions</i>	<ul style="list-style-type: none"> <li>• <i>The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource.</i></li> </ul>	<p>The Watershed Mineral Resources extends for approximately 1.2km in strike and 250 to 500m across strike.</p> <p>The Mineral Resources are limited in depth by the drilling and extend from surface to a maximum depth of approximately 450m vertically.</p>
<i>Estimation and modelling techniques</i>	<ul style="list-style-type: none"> <li>• <i>The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software and</i></li> </ul>	<p>Multiple Indicator Kriging (“MIK”) was used as the preferred method for estimation of tungsten at Watershed as the poorly structured data and relatively high coefficients of variation indicated skewed data.</p> <p>The tungsten mineralisation seen at Watershed is typical of that seen in most structurally controlled deposits and where the non-</p>

Criteria	JORC Code explanation	Commentary
	<p><i>parameters used.</i></p> <ul style="list-style-type: none"> <li>• <i>The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.</i></li> <li>• <i>The assumptions made regarding recovery of by-products.</i></li> <li>• <i>Estimation of deleterious elements or other non-grade variables of economic significance (eg sulphur for acid mine drainage characterisation).</i></li> <li>• <i>In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.</i></li> <li>• <i>Any assumptions behind modelling of selective mining units.</i></li> <li>• <i>Any assumptions about correlation between variables.</i></li> <li>• <i>Description of how the geological interpretation was used to control the resource estimates.</i></li> <li>• <i>Discussion of basis for using or not using grade cutting or capping.</i></li> <li>• <i>The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.</i></li> </ul>	<p>linear MIK modelling method has been found to be of most benefit.</p> <p>The in-house H&amp;SC GS3 software is designed specifically for estimation of recoverable resources using MIK. The method uses indicator variography on the tungsten composite grades within distinct mineralised populations defined by the mineral domains with block support adjustment. In addition an E-type model (average block grade) is produced for visual checking of the model.</p> <p>Data domaining, exploratory data analysis, variogram calculation and modelling, and resource estimation were all performed using the GS3 software. Generated models were loaded into a Surpac Mining Software block model for visual assessment and resource estimate reporting.</p> <p>The assay data were composited unconstrained to 2m down-hole intervals by H&amp;SC using the Surpac mining software. A composite length of 2m was chosen as it is a) a multiple of the most common sampling interval (1m) and b) 2m composites down the inclined (-55 to -60 degree) drill holes nominally produces a vertical spacing between composites of approximately 1.2m, approximately half to quarter the height of potential open pit mining bench height (either 2.5 or 5.0m).</p> <p>Domaining of the composites was done visually on the tungsten grades in GS3 using the visually driven domain chopper tool (nominal 0.05% WO<sub>3</sub> cut off). The geological domains from the 20m level interpretation were used as a guide in conjunction with the colour coded composites for WO<sub>3</sub> and the intensity of drilling</p>

Criteria	JORC Code explanation	Commentary
		<p>information. Five mineralised domains were recognized with an additional background grade domain. Two sub domains were created for the oxidation states based on the topography and base of partial oxidation surfaces.</p> <p>A review of the summary statistics for the mineral domains indicated skewed data, possibly multiple populations, and confirms that MIK is an appropriate modelling technique. No top cuts were applied to the composite data as there were no significant outliers in the data. The MIK modelling process is designed to work with skewed data.</p> <p>Within each mineral domain tungsten grade continuity was characterised by indicator variograms at 13 indicator thresholds spanning the global range of grades.</p> <p>Block dimensions are 10mE by 25mN and 15mRL with a selective mining unit ("SMU) of 2.5mE by 5mN by 2.5mRL. The strike dimension chosen approximates to the average drill spacing in the modelled resource areas and is consistent with the MIK modelling method. The vertical direction is a function of the steep dip of the mineralisation. The thinnest dimension was designed to reflect anisotropy of mineralisation.</p> <p>A three pass search strategy was employed to locate composites for use in the tungsten block grade interpolation and to produce the three resource confidence categories. Pass 1 (Measured) used a search ellipse with X, Y and Z dimensions of 15 by 30 by 30m, respectively, with the axes rotated 15° to NNW, dipping to the west 75° and plunging 15° to the south. Minimum number of data was 16 and 4 octants were used Passes 2 and 3 used an expanded</p>

Criteria	JORC Code explanation	Commentary
		<p>search of 26mE by 52.5mN by 52.5mRL with the minimum samples used in Pass 2 (Indicated) being 16 (and 4 octants), reducing to 8 (and 2 octants) for Pass 3 (Inferred).</p> <p>A block support adjustment was used to estimate the recoverable tungsten resources within model blocks. The shape of the local block tungsten grade distribution has been assumed lognormal and an additional adjustment for the “Information Effect” has been applied to arrive at the final resource estimates. The selective mining unit was assumed to be 2.5mE by 5mN by 2.5mRL based on advice from Vital Metals.</p> <p>A total of five estimates have been completed on the Watershed deposit in the period from 2007-2013. Two of the earlier estimates (2007 and 2008) were completed by RSG/Coffey using a wireframe interpretation and grade interpolation by Ordinary Kriging on 3m composites. In 2008 Hellman &amp; Schofield completed an MIK model for Vital Metals resulting in a recoverable resource estimate, and in 2009 a Recovered Fraction Model (RFM) was completed by McDonald Speijers. There is good agreement on a global scale between the OK and MIK grade models supporting the current reporting and classification.</p> <p>No previous mining has occurred at Watershed therefore the current resource estimate has not been reconciled to production.</p> <p>The resource model only estimates tungsten.</p> <p>There are no deleterious or other non-grade variables identified as being significant at Watershed.</p> <p>Visual inspection of average WO<sub>3</sub> block grades (E-type estimates)</p>

Criteria	JORC Code explanation	Commentary
		<p>and composite values indicated reasonable agreement, especially when taking into account the complex multiphase nature to the mineralisation.</p> <p>A statistical review of the block grades with the composite values indicated no modelling issues.</p> <p>The robustness of the resource modelling was tested by running a series of check MIK models; the results suggest there is low sensitivity to variation in the modelling parameters.</p>
Moisture	<ul style="list-style-type: none"> <li>Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.</li> </ul>	<p>The resource tonnage is reported on a natural moisture bulk density basis.</p> <p>No routine moisture content has been determined.</p>
Cut-off parameters	<ul style="list-style-type: none"> <li>The basis of the adopted cut-off grade(s) or quality parameters applied.</li> </ul>	<p>The Mineral Resources are reported at a cut-off grade of 0.05% WO<sub>3</sub> based on advice supplied by Vital Metals.</p> <p>The cut-off grades reflect the potential of mining lower cut-off grades with consideration for metallurgical recoveries at various processing plant throughput grades.</p>
Mining factors or assumptions	<ul style="list-style-type: none"> <li>Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential mining methods, but the assumptions made regarding mining methods and parameters when estimating Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the mining</li> </ul>	<p>The mining method for the extraction of tungsten at Watershed is currently planned to be by open pit mining, excavating benches of 2.5m in height. Grade control and ore blocking based on sampling from blast hole sampling at approximately 5m across strike and 5.8m along strike with samples taken at 1m intervals down-hole.</p>

Criteria	JORC Code explanation	Commentary
	<i>assumptions made.</i>	
<i>Metallurgical factors or assumptions</i>	<ul style="list-style-type: none"> <li><i>The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential metallurgical methods, but the assumptions regarding metallurgical treatment processes and parameters made when reporting Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made.</i></li> </ul>	<p>Metallurgical test work has been completed on bulk samples taken from Adits and surficial samples as well as a number of variability diamond drill holes all of which are considered representative of the deposit. Variability test work indicates that the ore properties do not differ significantly within the deposit. No significant variation of recoveries has been observed within the deposit; therefore metallurgical domaining has not been applied.</p> <p>No deleterious elements or penalty elements of significance have been defined, the scheelite is molybdenum free.</p> <p>The DFS has determined metallurgical processing of ore as;</p> <p>Dry crushing</p> <ul style="list-style-type: none"> <li>○ X-ray transmission ore sorting</li> <li>○ Gravity separation utilising spirals</li> <li>○ Flotation</li> </ul> <p>The metallurgical process uses established technologies. Flotation testwork has been completed in China by a specialist group.</p>
<i>Environmental factors or assumptions</i>	<ul style="list-style-type: none"> <li><i>Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation. While at this stage the determination of potential environmental impacts, particularly for a greenfields project, may not always be well advanced, the status of early consideration of these potential</i></li> </ul>	<p>Waste and disposal options are fully permitted with the Environmental Authority for the Watershed Project received on 3 September 2013 and amended on 8 September 2015.</p> <p>Process wastes will be co-disposed with open pit wastes.</p> <p>The area comprises hilly terrain of typical bushland vegetation associated with northern Queensland.</p>



Criteria	JORC Code explanation	Commentary
	<i>environmental impacts should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made.</i>	The climate is sub-tropical.
<i>Bulk density</i>	<ul style="list-style-type: none"> <li><i>Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size and representativeness of the samples.</i></li> <li><i>The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vugs, porosity, etc.), moisture and differences between rock and alteration zones within the deposit.</i></li> <li><i>Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.</i></li> </ul>	<p>Vital carried out a continuous program of density measurement with 13,256 measurements taken to date. Whole one metre samples were measured by water immersion on site using a specially constructed testing unit.</p> <p>The core is not oven dried or waxed. However it is considered that the lack of oven drying would only result in negligible errors due to the general competence of the material and lack of obvious pore space in the rocks (McDonald Speijers 2009).</p> <p>Drying might have been advisable in the oxidised zone however this zone is so shallow at Watershed (a few metres at maximum) that any density measurement error would have a minimal impact on the resource estimates.</p> <p>There is little variation of the bulk density values within the fresh material, which accounts for the majority of measurements. An average density of 2.45t/m<sup>3</sup> was applied to partially oxidised material and 2.74t/m<sup>3</sup> was applied to fresh material.</p>
<i>Classification</i>	<ul style="list-style-type: none"> <li><i>The basis for the classification of the Mineral Resources into varying confidence categories.</i></li> <li><i>Whether appropriate account has been taken of all relevant factors (ie relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data).</i></li> </ul>	<p>The search passes have been used to allocate the different resource categories to the blocks, with the parameters being consistent with H&amp;SC's experience of the mineralisation styles.</p> <p>The derivation of the search pass category for each panel is based on the applied search ellipse radii and the resulting number and configuration of the data used in the panel estimate ie a function of drillhole spacing This classification scheme takes into account</p>

Criteria	JORC Code explanation	Commentary
	<ul style="list-style-type: none"> <li>• <i>Whether the result appropriately reflects the Competent Person's view of the deposit.</i></li> </ul>	<p>the uncertainty in the estimates related to the proximity and distribution of the informing composites.</p> <p>Other factors that have been included in the classification</p> <ol style="list-style-type: none"> <li>1. Hole collar location and spatial position of drillhole</li> <li>2. Sampling methods</li> <li>3. Analytical methods</li> <li>4. Geological logging</li> <li>5. Density data</li> <li>6. QAQC</li> <li>7. Geological model</li> <li>8. Previous resource estimates</li> <li>9. Drillhole orientation and spacing</li> <li>10. Variography and understanding of grade distribution</li> <li>11. Estimation method ie MIK and search parameters, panel size, SMU, orientation of panels, minimum number of data points, minimum number of octants etc.</li> </ol> <p>H&amp;SC's resource classification is based on all the above points noting that there is good confidence in the quality of the Watershed data.</p> <p>The reported Mineral Resource estimates and their classification into the Measured, Indicated and Inferred categories is consistent with the Competent Person's view of the deposit.</p>
<p><i>Audits or reviews</i></p>	<ul style="list-style-type: none"> <li>• <i>The results of any audits or reviews of Mineral Resource estimates.</i></li> </ul>	<p>No external audits or reviews of the Mineral Resource estimates have been undertaken.</p>
<p><i>Discussion of relative</i></p>	<ul style="list-style-type: none"> <li>• <i>Where appropriate a statement of the relative accuracy and</i></li> </ul>	<p>The relative accuracy of the Mineral Resource estimates is reflected in the reporting of Measured, Indicated and Inferred</p>

Criteria	JORC Code explanation	Commentary
accuracy/ confidence	<p><i>confidence level in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could affect the relative accuracy and confidence of the estimate.</i></p> <ul style="list-style-type: none"> <li><i>The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used.</i></li> <li><i>These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.</i></li> </ul>	<p>Resources.</p> <p>Attempts have been made to address the fundamental complex nature of the tungsten mineralisation and the mixed mineral styles by using the non-linear MIK modelling method. A number of internal check models have been completed that confirm the robust nature of the estimates to changing modelling parameters</p> <p>The Mineral Resource estimates are considered to be accurate globally, but there is some minor uncertainty in the local estimates due to the current drill hole spacing and the complex nature of the mineralisation. The 2008 H&amp;S resource estimation report included a comparison between the MIK model using the resource drilling and a grade control model using the RC data and conditional simulation. From the results it was concluded that there was little evidence to suggest that the reported MIK resource estimate understated the resource in the local vicinity of the RC grade control data.</p> <p>The differences in the grade and tonnages for different cut off grades are mostly within 10% which is considered appropriate for Measured Resources and provides confidence that the resources are predictable</p> <p>H&amp;S Consultants has relevant experience in similar deposit styles and this has been incorporated in the assessment of appropriate classifications</p> <p>No mining of the deposit has commenced so there is no production data to reconcile with.</p>