Vital Metals Ltd

REPORT FOR THE QUARTER ENDED 31 DECEMBER 2008

Highlights

- **Consultants, McDonald Speijers (MDS), have completed the new resource model for Vital's Watershed tungsten deposit using their Recovered Fraction technique and have completed new resource estimates.**
- **At cut-off grade of 0.10% WO_3, MDS estimate an Indicated Resource of 15.1 million tonnes at 0.46% WO_3 for 69,300 tonnes of contained WO_3.**
- **At a higher (0.15% WO_3) cut-off, MDS estimate an Indicated Resource of 11.6 million tonnes at 0.54% WO_3 for 63,100 tonnes of contained WO_3.**
- **MDS model shows substantial grade improvement over previous estimates which used kriging methodology.**
- **Preliminary evaluation and pit design for a first-stage operation treating 450,000 tonnes per year, producing 1,500 tpa of contained WO_3 in concentrates, shows promise for economic viability.**
- **More precise evaluation of bench by bench mining costs and specific pit design, layout and optimisation has commenced. Results for this key phase of economic assessment are due around end first quarter 2009.**
- **The new modelling opens up improved prospects for the Watershed Feasibility Study and for the development of Watershed as a substantial tungsten producer.**
- **Results from drilling undertaken earlier in the year continue to show consistently good tungsten intercepts. Latest drilling has encountered excellent WO_3 grades in areas previously considered barren.**
- **EPA Queensland confirms decision to allow Watershed EIS to proceed.**
- **Share Purchase Plan – Offer to Shareholders to Participate. Eligible Shareholders may purchase up to $5,000 worth of fully paid ordinary shares in the capital of the Company, free from all brokerage and commissions.**
- **Share Purchase Plan closing date extended from 19 December 2008 to 23 January 2009.**

Corporate

Financial

As at 31 December 2008, Vital Metals Ltd had on issue 109.54m shares and 2.72m unlisted options exercisable at various prices. Cash at bank as at 31 December 2008 was $0.7 million, which does not include the $331,000 received in the Share Purchase Plan as at 16 January 2009.

Share Purchase Plan

It was announced on 28 November 2008 that eligible shareholders were offered the opportunity to participate in a Share Purchase Plan (SPP) whereby they can purchase either the maximum subscription of 83,333 shares at a price of $0.06 per share ($5,000) or the minimum subscription of 33,333 shares at a price of $0.06 per share ($2,000). The SPP was due to close on 19 December 2008 but was extended and will now close at 5.00pm WDST on Friday, 23 January 2009.

Watershed Project

Alternative Resource Modelling Technique Applied to Watershed

Resource estimates were conducted on the Watershed deposit in mid-2008 by two separate consultant groups, both of whom employed the standard geostatistical methodology known as kriging. This method uses geostatistics to calculate the best estimate of values for metal content (grade, expressed in the Watershed deposit case as per cent WO_3 or tungstate) using known values (from drill holes into the deposit) and projecting them into spaces – elsewhere in the deposit between the drill holes – where values are not known. Coffey Mining's estimates used Ordinary Kriging (OK). Hellman & Schofield conducted estimates that employed Multiple Indicator Kriging (MIK). These estimates used data from drilling conducted by Utah Development between 1980 and 1985 as well as data from drilling conducted by Vital between early 2006 and early 2008. These estimates have already been released to the market and will not be repeated here.

The process of kriging using such large block sizes results in smoothing of grades into volumes that are considerably larger than those that would be subjected to a selective mining scenario in an optimised open cut mining operation. This renders the existing OK and MIK resource estimate models for the Watershed deposit of limited use for manipulation in mining studies investigating the proportions of recoverable mineralisation in situations other than bulk mining.

The existing models appear unsuitable for studies of selective mining of the Watershed deposit where higher grades are confined to volumes smaller than the block sizes and the distribution of higher grade mineralisation shows strong variability over short distances.

In an attempt to overcome this problem, the company requested specialist mineral resource consultants McDonald Speijers to review the Watershed deposit and investigate the applicability of their Recovered Fraction modelling [RF] technique. This technique was developed by McDonald Speijers in-house in the 1980s for use in open cut gold mines in Western Australia. Its pedigree is operational rather than theoretical and the method has been successfully applied to numerous mining situations. It facilitates estimation of the effects of selective mining where the cost of conventional delineation of short range mineralised structures by drilling would be prohibitive.

This review suggested the RF technique may be applicable and useful at Watershed and McDonald Speijers has been commissioned to conduct a complete evaluation of the deposit and to use their RF technique to generate a revised model of the deposit. This is to be followed by a trial pit optimisation based on a selective mining scenario.

Updated Resource

McDonald Speijers completed the construction of a resource model using their RF technique and completed a new resource estimate.

Within the area limited to the zone of regularly spaced drilling, with a maximum external projection distance of about 25 metres, McDonald Speijers has estimated that the Watershed Tungsten Deposit contains 15.1 million tonnes at an average grade of 0.46% WO_3 for a contained 69,300 tonnes of WO_3, at a cut-off grade of 0.10% WO_3.

At a cut-off grade of 0.15% WO_3, the estimate is 11.6 million tonnes at an average grade of 0.54% WO_3 for a contained 63,100 tonnes of WO_3.

These estimates are classified by McDonald Speijers as Indicated Resources and are undiluted, i.e. in situ and without any considerations of mining aspects taken into account. The directors warn that re-evaluation of the Watershed project is not based on resource numbers only and the completion of the remainder of the work will be required before any new economic predictions can be made.

The two remaining phases of work, pit optimisation and mining studies, which are not yet available, are scheduled for completion by the end of the first quarter of 2009.

McDonald Speijers consider the constructed resource model is suitable for preliminary pit optimisation and mining studies but point out that some additional drilling will be required to more accurately locate mineralisation prior to the finalisation of reliable pit designs.

It is the opinion of McDonald Speijers that the RF technique yields a more realistic evaluation of the resource available at Watershed for potential exploitation than previous resource estimates that used conventional grade smoothing methods.

The RF technique used downhole intersections of mineralisation to estimate the proportion of mineralised material above a particular cut-off grade occurring in individual cells. It takes account of:

- minimum widths
- Internal waste, and optionally
- losses incurred during mining.

Details of the Resource Estimate, as provided by McDonald Speijers, are provided below:

Resource Model Definition

The resource model for Watershed was constructed with only two mineralisation domains representing arenite and argillite dominated lithologies. These domains were defined using wireframes supplied by Vital that had been used in a previous resource model by another party. McDonald Speijers applied minor adjustments to the wireframes. The 'vein swarm' wireframes used to define mineralised zones in the previous resource model were not employed as McDonald Speijers considered them to be too prescriptive in nature and restrictive in terms of data availability for the RF technique.

In addition to the above mentioned domains McDonald Speijers constructed a limiting wireframe containing the zone of regularly spaced drilling with a maximum external projection distance of about 25m. All estimation was constrained to this volume.

Drill Data and Compositing

McDonald Speijers only used sample assays from core drilling data in their estimation work. The early core holes were drilled by Utah and Geopeko and were dominantly in an east-west orientation whereas holes drilled recently by Vital are predominantly north-south.

Recovered fraction composites were created according to the parameters in Table 1.

Table 1 – Recovered Fraction Composite Parameters

Parameter	Values
Assay cutoffs	0.05, 0.10, 0.15, 0.20 % WO_3
Default assay	0.005% WO_3
Assay top cut - arenite	3.5% WO_3
Assay top cut - argillite	2.5% WO_3
Maximum internal waste	6.0m downhole
Grade carry across internal waste	Yes
Thinnest ore interval	6.0m downhole
RF composite length	6.0m downhole
Number of composite overlaps	2
Ore loss skin (for diluted estimates)	0.5m downhole
Dilution skin (for diluted estimates)	1.1m downhole

Block Model Interpolation

Interpolation of numeric properties employed the parameters in Table 2. A single search ellipsoid with a fixed orientation was used for the entire block model. This was based on the observed structure of the mineralised veins. The RF method does not rely on achieving any particular form of smoothing so all interpolation was by inverse distance squared.

Table 2 – Model Interpolation Parameters

Parameter	Values
Ellipsoid radii lengths (X, Y, Z)	75m, 50m, 125m
Axis rotations (About Z, X,Y) – clkws +ve	-10°, 15°, -15°
Octant restrictions	No
Minimum samples	5
Maximum samples per hole	3
Maximum samples	32
Volume factors	1.0, 1.5, 3.0
Inverse distance power	2

Bulk densities have been assigned to the block model according to the scheme employed in the previous resource estimation, that is on the basis of dominant lithology and oxidation state. The scope for significant error in the determination of bulk density would appear to be quite low.

Resource Estimates

McDonald Speijers consider that the resource estimation is based on good quality data and, in the current model, has been constrained closely to the drilling. The overall attitude and density of mineralised veins and adjacent selvedge mineralisation varies but has been well studied as has the occurrence of the associated alteration zones. Although the extent and location of individual ore lenses is not always accurately known at this time the drilling is regular and provides a representative sampling of the mineralised volume. Due to the methodology employed it is considered that the drilling of additional holes within this volume, although perhaps desirable for mine design purposes, is unlikely to significantly affect the global estimates (given the same estimation parameters).

McDonald Speijers consider that the resource defined by the current model can be classified as in the Indicated category of the 2004 JORC Code.

Table 3 provides estimates of the resource at a range of assay cut-off values in undiluted form.

The current resource model defines mineralisation down to about 400mRL which is some 300m below the lower most point of the local valley floor.

A pit optimisation study is required before the proportion of this resource amenable to future potential economic extraction can be evaluated.

Table 3 – Indicated Resource Estimates

Model Pass	Cutoff (% WO_3)	Tonnage (Mt)	Grade (% WO_3)	Metal (kt)	Proportion Of Zone
Undiluted					
2	0.10	15.1	0.46	69.3	6%
3	0.15	11.6	0.54	63.1	5%

All resource estimation work has been carried out by Diederik Speijers who is a Fellow of the Australasian Institute of Mining and Metallurgy and who can be considered as a Competent Person as that term is defined by the 2004 JORC Code, for the style of mineralisation under consideration and for the work being undertaken.

Further High Grade Results from Watershed Exploration and Geotechnical Holes

The final analytical results from all remaining holes of the resource evaluation diamond drilling program (MWD series) conducted at the Watershed Tungsten Project in mid-2008, including those from the geotechnical investigation holes (GT series) into the proposed pit walls for the first-stage open cut, were received during the quarter.

The resource evaluation drilling focused on two areas: the northern extension to the first stage pits and the south-western extension to the known main deposit. Holes in the former area encountered some very impressive grades in the vicinity of the proposed access ramp into that pit, which, in the initial mining studies conducted to date, had been considered as barren rock.

Other recent holes (the results of which were announced in the September Quarter) within the same area were MWD227, which encountered **1m at 4.30% WO_3** from 69 metres down hole and **3m at 0.67%** from 84 metres; MWD228, with **7m at 0.44% WO_3** from 114 metres and **6m at 2.55%** from 143 metres and MWD229, which intersected **25m at 0.70% WO_3** from 7 metres, **9m at 0.52%** from 44 metres, **3m at 1.78%** from 97 metres and **1m at 5.23% WO_3** from 168 metres down hole.

The best intercepts from these latest resource evaluation holes were in MWD243 (northern extension to the first stage pit) and MWD247 (central location in the south-western extension area) as follows:

- MWD243 – **14 metres at 1.13% WO_3 from 41 metres down hole, including 4 metres at 1.90% from 41m and 3 metres at 1.62% from 46 metres.**
- MWD247 – **10 metres at 0.61% WO_3 from 52 metres and 6 metres at 1.21% WO_3 from 122 metres.**

In the geotechnical holes, some unexpected zones of mineralisation were encountered in the walls of the proposed open pit. The best mineralised intercepts occur in Holes GT001, 003, 005 and 007:

- GT001 – **6 metres at 0.56% WO_3 from 44 metres down hole and 6 metres at 0.77% WO_3 from 69 metres.**
- GT003 – **1 metre at 2.09% WO_3 from 116 metres down hole and 2 metres at 0.89% WO3 from 130 metres.**
- GT005 – **10 metres at 0.35% WO_3 from 91 metres.**
- GT007 – **10 metres at 0.51% WO_3 from 35 metres.**

These results continue to support the outstanding long-term potential of the Watershed deposit as one of the prime undeveloped tungsten properties in the world with drilling showing the still-unbounded limits to the mineralisation.

The details of the holes for which analyses were received late in the December Quarter are given in Table 4, and the mineralised intercepts, at a nominal lower cut-off grade of 0.1% WO_3 are listed in Table 5.

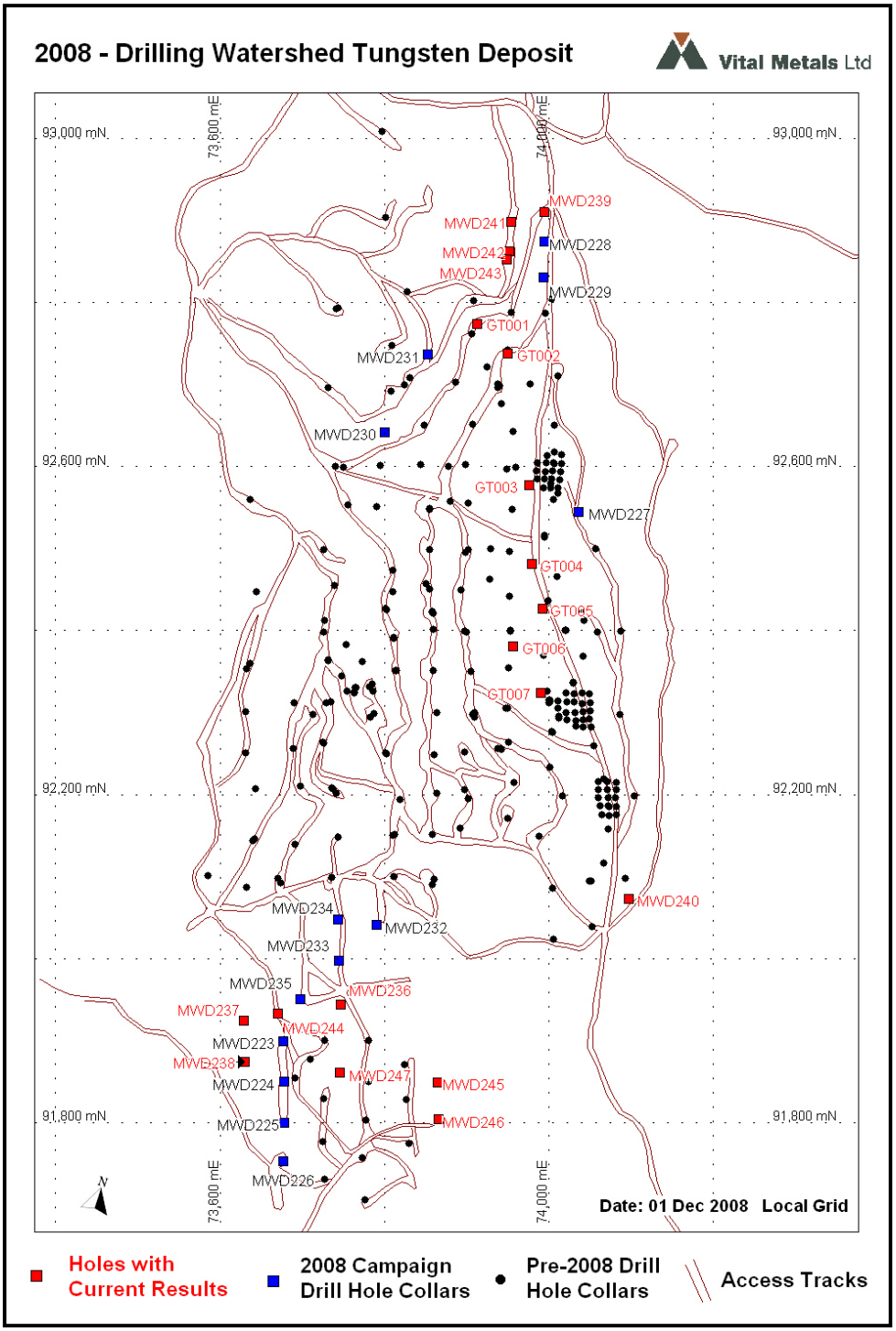
Table 4 – Details of Drill Holes

Hole	Co-ordinates (Local Grid)		Azimuth	Declination	Total Depth
Number	East	North	(Magnetic)	(degrees)	(Metres)
MWD236	73747	91944	340	-60	141.3
MWD237	73629	91925	340	-60	150.0
MWD238	73629	91875	340	-60	171.0
MWD239	73995	92911	340	-60	93.0
MWD240	74097	92073	340	-60	156.0
MWD241	73955	92899	342	-70	165.4
MWD242	73952	92863	348	-70	144.3
MWD243	73949	92853	034	-60	96.2
MWD244	73671	91933	340	-60	141.0
MWD245	73865	91849	340	-60	120.0
MWD246	73866	91804	340	-60	150.1
MWD247	73745	91860	340	-60	198.1
GT001	73913	92774	72	-60	80.0
GT002	73950	92738	72	-60	90.1
GT003	73976	92578	72	-60	140.0
GT004	73979	92482	252	-70	110.4
GT005	73992	92427	72	-60	126.0
GT006	73957	92381	252	-70	141.3
GT007	73991	92325	72	-60	121.3

Table 5 – Mineralised Intercepts (at a cut-off grade of 0.1% WO_3)

Hole Number	From (m)	To (m)	Interval (m)	Grade (% WO_3)
MWD241	0	8	8	0.26
MWD241	26	32	6	0.34
MWD241	57	61	4	0.22
MWD241	70	72	2	0.13
MWD241	80	83	3	0.49
MWD242	63	65	2	0.12
MWD243	41	55	14	1.13
incl	41	45	4	1.90
and	46	49	3	1.62
MWD245	0	4	4	0.22
MWD245	11	12	1	0.30
MWD245	106	107	1	0.44
MWD245	110	111	1	0.44
MWD246	30	32	2	0.24
MWD246	34	36	2	0.37
MWD246	106	107	1	1.20
MWD247	17	21	4	0.23
MWD247	52	62	10	0.61
MWD247	106	110	4	0.33
MWD247	115	117	2	0.34
MWD247	122	128	6	1.21
GT001	31	39	8	0.28
GT001	44	50	6	0.56
GT001	69	75	6	0.77
GT002	73	76	3	0.23
GT003	116	117	1	2.09
GT003	130	132	2	0.89
GT005	15	16	1	0.55
GT005	91	101	10	0.35
GT006	120	121	1	0.44
GT006	129	130	1	0.47
GT007	0	2	2	0.14
GT007	13	21	8	0.37
GT007	35	45	10	0.51
GT007	50	52	2	0.77
GT007	94	99	5	0.20

NOTE: Only intercepts that are either greater than 1 metre or 0.20% WO_3 are listed
1. Interval (m) is down hole length and not necessarily true width.
2. Analyses quoted are a mix of XRF and ICP (Inductively Coupled Plasma) methods.
3. Samples are taken over whole metre lengths.


2008 - Drilling Watershed Tungsten Deposit
Vital Metals Ltd
93,000 mN
92,600 mN
92,200 mN
91,800 mN
73,600 mE
74,000 mE
MWD239
MWD241
MWD228
MWD242
MWD243
MWD229
GT001
GT002
MWD231
MWD230
GT003
MWD227
GT004
GT005
GT006
GT007
MWD240
MWD234
MWD232
MWD233
MWD235
MWD236
MWD237
MWD244
MWD223
MWD238
MWD247
MWD245
MWD224
MWD246
MWD225
MWD226
N
Date: 01 Dec 2008 Local Grid
Holes with Current Results
2008 Campaign Drill Hole Collars
Pre-2008 Drill Hole Collars
Access Tracks

Note: "The information in this report that relates to exploration results is based on information compiled by Mr Bruce Arthur Pertzel, who is a Fellow of the Australasian Institute of Mining and Metallurgy. Mr Pertzel is an employee of Vital Metals Ltd 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 2004 edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Mr Pertzel consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

The information that relates to Resource Estimates is based on information compiled by Mr Diederik Speijers. Mr Speijers is the principal of independent Mining and Resource Consultants, McDonald Speijers, 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 2004 edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Mr Speijers consents to the inclusion in the report of the matters based on his information in the form and context in which it appears

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