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tungsten mining NL
ABN 67 152 084 403

18 January 2019

ASX Announcement

Drilling Defines Significant Molybdenum +/-Tungsten Mineralisation at the Mulgine Hill Moly Prospect

Highlights

- Results from Mulgine Hill Moly Prospect are highly encouraging intersecting multiple zones of molybdenum-tungsten mineralisation within a 100 metre wide envelope. Better intersections include:
  - 22 metres at 0.06% WO_3 and 0.22% Mo from 0 metres,
  - 16 metres at 0.14% WO_3 and 0.05% Mo from 23 metres,
  - 6 metres at 0.13% WO_3 and 0.20% Mo from 55 metres.
- All results have been received for 20 metre spaced infill drilling at Mulgine Hill and a revised Mineral Resource estimate is expected to be completed by the end of January.
- Four PQ diamond holes have been drilled to provide material for metallurgical studies at Mulgine Trench.

Australian tungsten development company, Tungsten Mining NL (ASX: TGN) ("Tungsten Mining" or "the Company"), is pleased to report on results from drilling at the Mt Mulgine Project in the Murchison Region of Western Australia, approximately 350km north northeast of Perth.

Between the 27 August and 5 October 2018, the Company drilled 103 reverse circulation (RC) holes and four diamond holes on the Mount Mulgine Project (Figure 1). Results from the first 91 RC holes were released in the ASX announcement *"Mulgine Hill Infill Drilling Program Successful, extends tungsten +/- molybdenum mineralisation"* on 30 November 2018. This report announces results from the final twelve RC holes.

Tungsten Mining has 100% of the tungsten and molybdenum rights on a contiguous group of tenements at Mt Mulgine that have been the subject of significant previous exploration for tungsten and molybdenum. Two near surface Mineral Resources have been delineated by previous explorers at the Mulgine Trench and Mulgine Hill deposits. Tungsten Mining is focussed on delivering on its strategic development plan directed at the production of tungsten concentrate from the Mt Mulgine Project.

The drilling was part of a larger program of project development at Mt Mulgine, which has included establishing suitable locations for mine site infrastructure, collecting geotechnical data, providing material for metallurgical studies, completing infill drilling across the Mulgine Hill Mineral Resource, and undertaking exploration drilling.

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Mulgine Hill

Between 27 August and 5 October 2018, Tungsten Mining drilled 91 RC holes for 5,195 metres to complete 20 metre infill sections over pit optimisations at Mulgine Hill. Holes focused on the proposed main pit and two proposed satellite pits (Figure 2). Results from the first 89 holes were reported on 30 November 2018. Assays from the last two holes (MMC251 and MMC252) have been received and continue to confirm continuity of mineralisation present (Figure 3).

Better tungsten intersections received from holes MMC251 and MMC252 are listed in Table 1. A complete list of all intersections greater than 2 metres at 0.10% WO_3 are presented in Appendix 1.

A revised Mineral Resource estimate for Mulgine Hill is currently being prepared and will be reported in the March quarter.

Mulgine Hill Moly Prospect

In 1966, Westfield Minerals (WA) NL drilled 51 percussion holes at the Mulgine Hill Moly Prospect. This drilling intersected molybdenum mineralisation in two zones with a total strike length of 600 metres (refer to comment in JORC Table 1 on historic exploration – Page 13). In October 2018, Tungsten Mining drilled four RC holes (MMC261 - MMC264) to test the northern zone (Figure 1). This drilling intersected quartz veined greisen and granite at target depths.

Results from the top of MMC261 were reported on 30 November 2018. Results from the remaining samples have been received and are considered highly encouraging. Drilling intersected multiple zones of molybdenum-tungsten mineralisation within a 100 metre mineralised envelope hosted by quartz veined greisen (Figure 4). Better intersections include 22 metres at 0.06% WO_3 and 0.22% Mo from 0 metres, 16 metres at 0.14% WO_3 and 0.05% Mo from 23 metres and 6 metres at 0.13% WO_3 and 0.20% Mo from 55 metres. Stronger mineralisation is listed in Table 2 and a complete list of intersections greater than 2 metres at 0.05% WO_3 plus Mo are listed in Appendix 1.

Sterilisation Drilling

In October 2018, Tungsten Mining drilled six RC holes (464 metres) to test beneath proposed infrastructure (Figure 1). The drill hole locations were to the south of the Mulgine Hill and Trench deposits, and were completed for possible locations for a ROM pad and a stockpile area. Drilling intersected no significant mineralisation.

Trench Diamond Drilling

Four PQ diamond holes for 528.2 metres were drilled to obtain samples for metallurgical studies at Mulgine Trench. The Trench deposit has several metallurgical domains and core will be used to conduct extensive test work to identify the optimal recovery process for both tungsten and molybdenum.

Geological logging has been completed and results from sampling is expected in late January.

Table 1 – List of better Tungsten Intersections from Infill Drilling at Mulgine Hill

Mulgine Hill Drilling - Significant Tungsten Mineralisation (at 0.10% WO_3 + Mo lower cut off)									
Hole No	MGA Coordinates				Intersections				
	Northing (m)	Easting (m)	Depth (m)	Dip/ Azim	From (m)	To (m)	Interval (m)	WO_3%	Mo%
MMC251	6,771,95	497,866	70	-90	36	49	13	0.24	0.024
MMC252	6,771,93	497,837	70	-90	36	41	5	0.44	0.010
MMC252					49	53	4 **	0.66	0.067
MMC252				Incl.	51	52	1 **	1.30	0.184
MMC252					62	69	7 **	0.14	0.040

*1m cone split RC samples. Analysis is XRF determination by Nagrom laboratories, Kelmscott WA. Lower cut-off grade 0.10% combined WO_3 + Mo, no top cut grade. All high-grade intervals greater than 1.00% WO_3 listed. Grid coordinates are MGA Zone 50. ** Interval previously reported in ASX release dated 30 October 2018.*

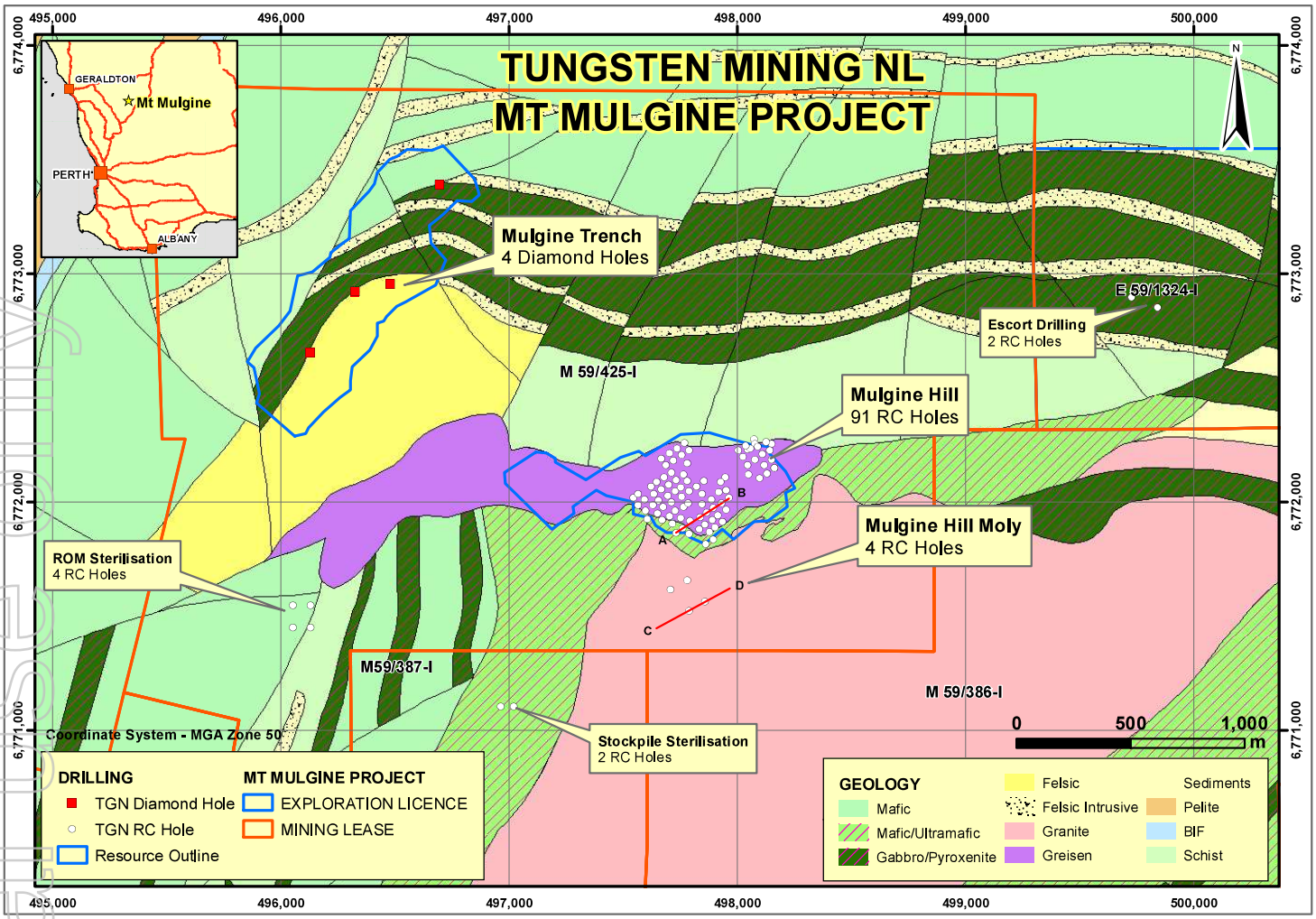

Figure 1 - Plan displaying location of drilling reported in this release. White dots = RC hole, red squares = diamond hole

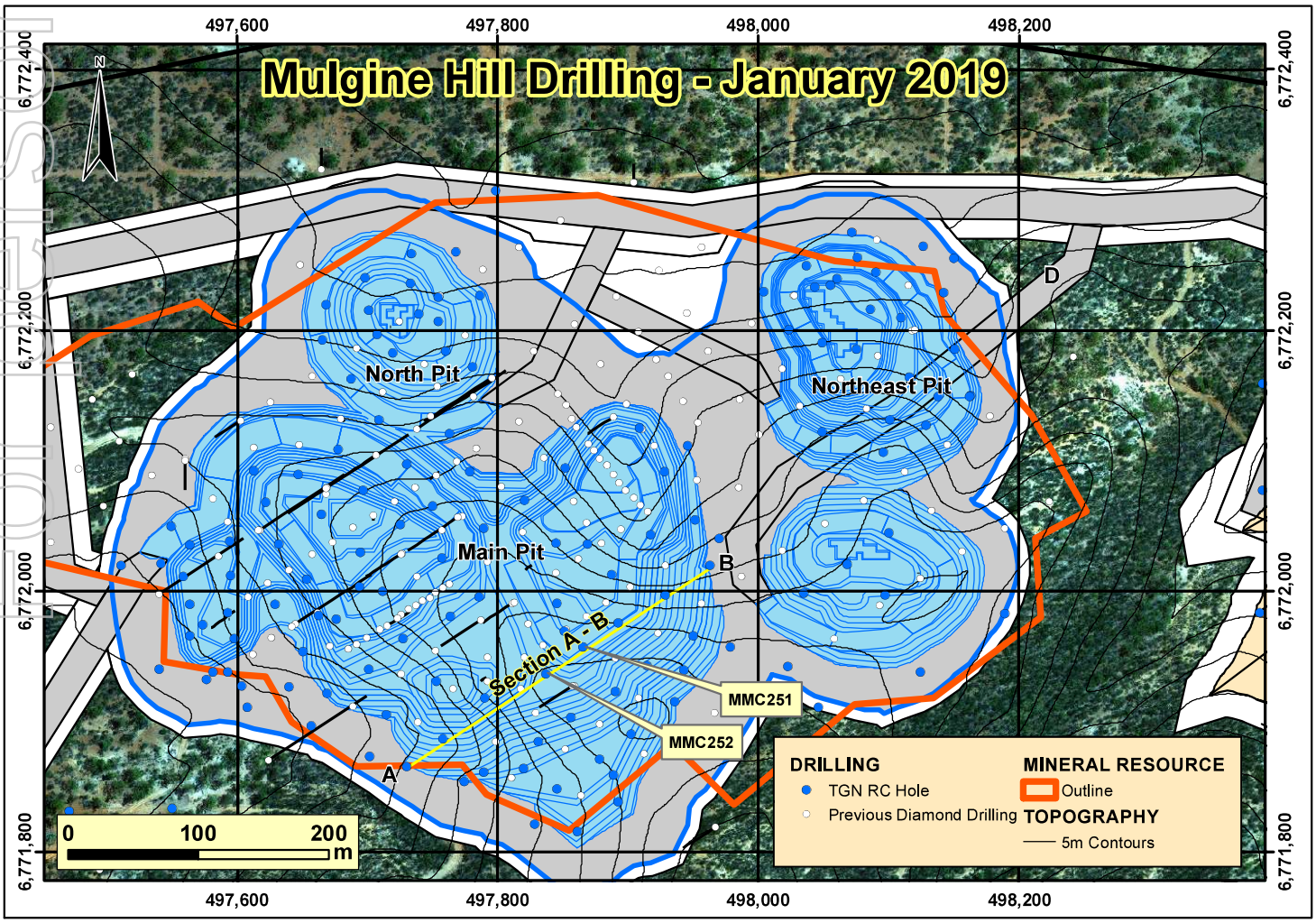

Figure 2 - Infill drilling at Mulgine Hill showing location of sections A-B and holes MMC251 and MMC252

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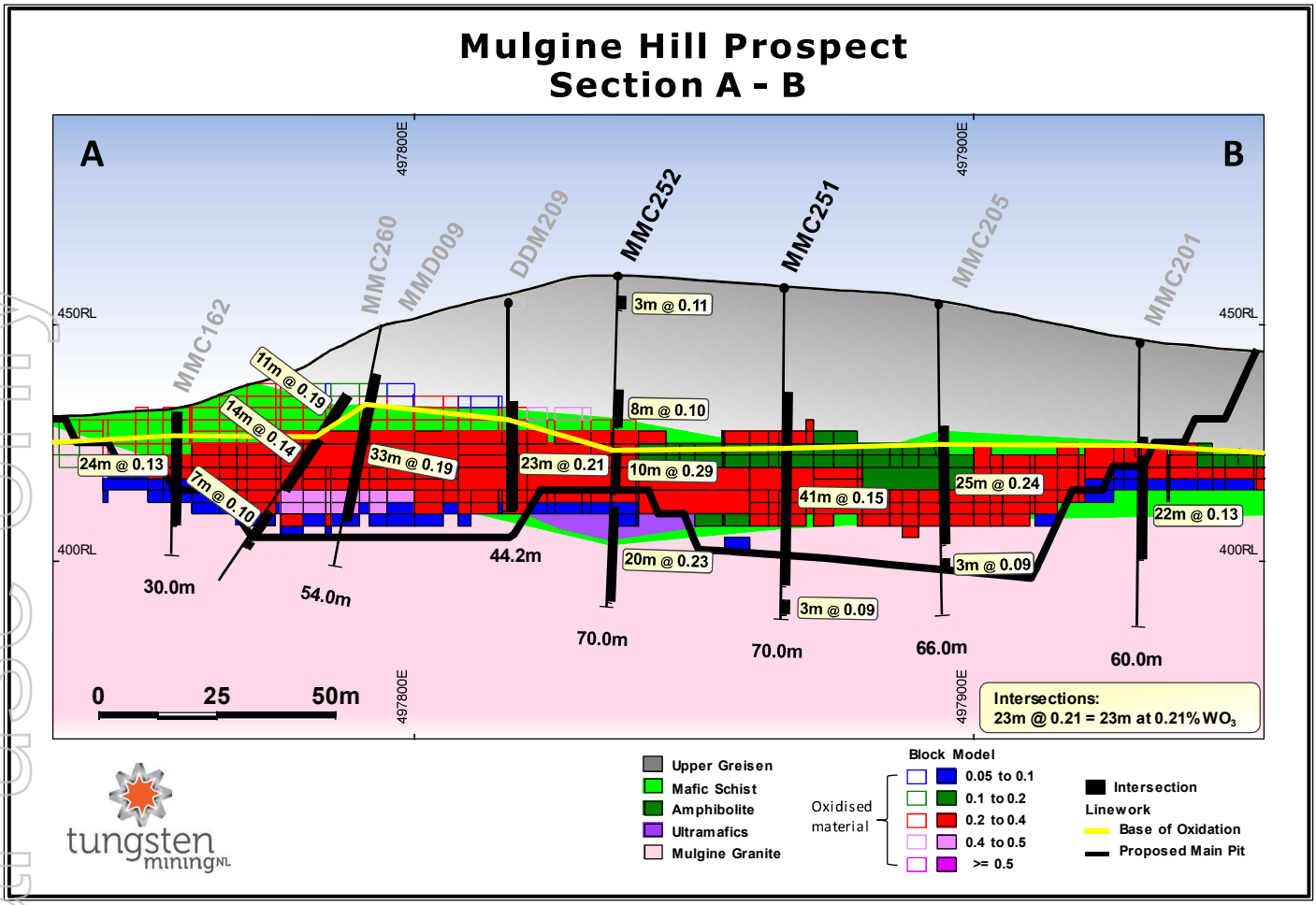

Figure 3 – Cross section showing the block model and broad zones of mineralisation intersected by MMC251 and MMC252. Both these holes intersected tungsten-molybdenum mineralisation in the hangingwall and footwall to the June 2017 block model. Intersections shown on section have a lower cut-off of 0.05% WO_3+Mo

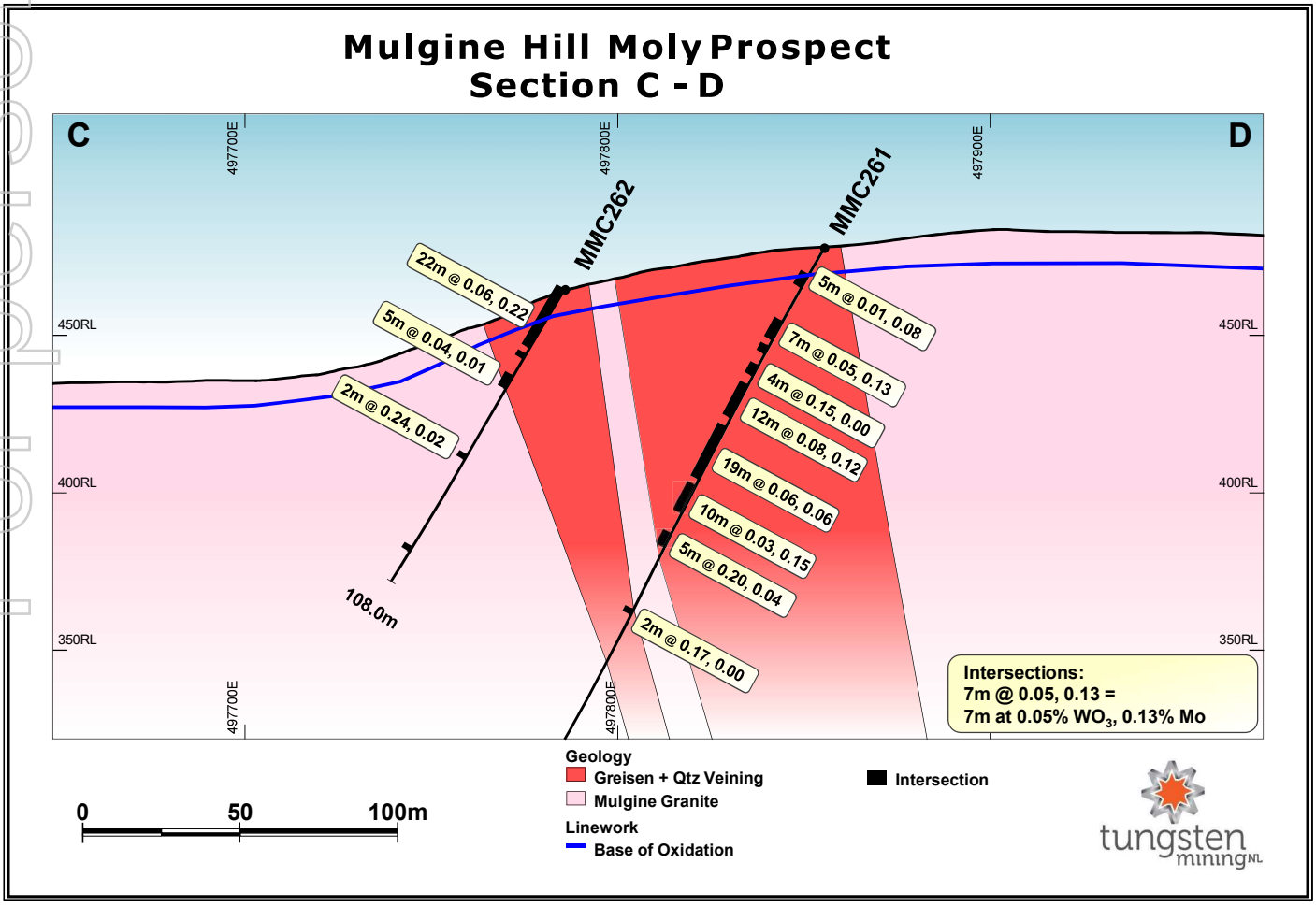

Figure 4: Multiple molybdenum-tungsten intersections at Mulgine Hill Prospect. Red histograms are zones of quartz veining

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Table 2 – List of better molybdenum-tungsten intersections from RC drilling at Mulgine Hill Moly Prospect

Mulgine Hill Moly Prospect - Significant Molybdenum - Tungsten Mineralisation (at 0.05% WO_3 + Mo lower cut off)									
Hole No	MGA Coordinates				Intersections				
	Northing (m)	Easting (m)	Depth (m)	Dip/ Azim	From (m)	To (m)	Interval (m)	WO_3%	Mo%
MMC261	6,771,564	497,858	180	-60/237	27	34	7 **	0.05	0.131
MMC261					**55**	**61**	**6 ****	**0.13**	**0.201**
MMC261					65	73	8 **	0.07	0.076
MMC261					**88**	**93**	**5 ****	**0.04**	**0.222**
MMC262	6,771,524	497,785	108	-60/237	**0**	**22**	**22**	**0.06**	**0.218**
MMC263	6,771,657	497,777	156	-60/237	**23**	**39**	**16**	**0.14**	**0.045**
MMC263					80	84	4	0.18	0.062
MMC263					93	102	9	0.05	0.056
MMC263					145	156	11	0.09	0.043
MMC264	6,771,619	497,704	102	-60/237	5	16	11	0.02	0.062
MMC264					**21**	**27**	**6**	**0.04**	**0.215**
MMC264					45	50	5	0.03	0.092
MMC264					89	91	2	0.19	0.175

*1m cone split RC samples. Analysis is XRF determination by Nagrom laboratories, Kelmscott WA. Lower cut-off grade 0.05% combined WO_3 plus Mo, no top cut grade. All high-grade intervals greater than 1.00% WO_3 listed. Grid coordinates are MGA Zone 50. ** Interval previously reported in ASX release dated 30 October 2018.*

Competent Person's Statement

The information in this report that relates to Exploration Targets and Exploration Results is based on, and fairly represents, information and supporting documentation prepared by Peter Bleakley, who is a Member of the Australasian Institute of Mining and Metallurgy. Mr Bleakley is not a full-time employee of the company. Mr Bleakley is a consultant to the mining industry. Mr Bleakley has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr Bleakley consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

-ENDS-

18 January 2019

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About Tungsten Mining

Emerging Australian tungsten developer, Tungsten Mining NL is an Australian based resources company listed on the Australian Securities Exchange. The Company's prime focus is the exploration and development of tungsten projects in Australia.

Tungsten (chemical symbol W), occurs naturally on Earth, not in its pure form but as a constituent of other minerals, only two of which support commercial extraction and processing - wolframite ((Fe, Mn)WO_4) and scheelite ($CaWO_4$).

Tungsten has the highest melting point of all elements except carbon – around 3400°C giving it excellent high temperature mechanical properties and the lowest expansion coefficient of all metals. Tungsten is a metal of considerable strategic importance, essential to modern industrial development (across aerospace and defence, electronics, automotive, extractive and construction sectors) with uses in cemented carbides, high-speed steels and super alloys, tungsten mill products and chemicals.

Tungsten Mining has four advanced tungsten projects in Australia: in Western Australia, the Mt Mulgine Project in the Murchison region, the Big Hill Project in the Pilbara region and the Kilba Project in the Ashburton region and in Queensland the Watershed Project in north east Queensland. Tungsten Mining is implementing a staged approach to the development of the Mt Mulgine Tungsten Project, initially focussed on a low capital start-up from Mulgine Hill, directed at demonstrating a pathway to positive cash flow and the basis for large scale mining and processing operations at Mulgine Trench.

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Appendix 1
Mt Mulgine Project - Drill Collar Data and Significant Intersections

Mulgine Hill, RC Drilling (>2m at 0.10 % WO_3 + Mo) for Tungsten (± Molybdenum) Mineralisation										
Hole No	MGA Coordinates				Intersections					
	Northing (m)	Easting (m)	Depth (m)	Dip/ Azim	From (m)	To (m)	Interval (m)	WO_3%	Mo%	Weath.
MMC251	6,771,957	497,866	70	-90	26	28	2	0.11	0.003	Fresh
MMC251					30	33	3	0.12	0.001	Fresh
MMC251					**36**	**49**	**13**	**0.24**	**0.024**	Fresh
MMC251					61	63	2	0.03	0.312	Fresh
MMC252	6,771,937	497,837	70	-90	27	31	4	0.13	0.010	Fresh
MMC252					**36**	**41**	**5**	**0.44**	**0.010**	Fresh
MMC252					**49**	**53**	**4 ****	**0.66**	**0.067**	Fresh
MMC252					**51**	**52**	**1 ****	**1.30**	**0.184**	Fresh
MMC252					62	69	7 **	0.14	0.040	Fresh

*1m cone split RC samples. Analysis is XRF determination by Nagrom laboratories, Kelmscott WA. Lower cut-off grade 0.10% combined WO_3 plus Mo, no top cut grade. All high-grade intervals greater than 1.00% WO_3 listed. Grid coordinates are MGA Zone 50. Fresh – contains fresh scheelite, Weath. – tungsten present in another mineral species. * Contains preliminary composite samples. ** Interval previously reported in ASX release dated 30 October 2018.*

Mulgine Hill Moly Prospect, RC Drilling (>2m at 0.05 % WO_3 + Mo) for Molybdenum - Tungsten Mineralisation										
Hole No	MGA Coordinates				Intersections					
	Northing (m)	Easting (m)	Depth (m)	Dip/ Azim	From (m)	To (m)	Interval (m)	WO_3%	Mo%	Weath.
MMC261	6,771,564	497,858	180	-60/237	10	15	5 **	0.01	0.080	Fresh
MMC261					**27**	**34**	**7 ****	**0.05**	**0.130**	Fresh
MMC261					36	39	3 **	0.07	0.060	Fresh
MMC261					43	47	4 **	0.15	0.000	Fresh
MMC261					**50**	**62**	**12 ****	**0.08**	**0.120**	Fresh
MMC261					65	83	18 **	0.06	0.070	Fresh
MMC261					**88**	**96**	**8 ****	**0.03**	**0.160**	Fresh
MMC261					**103**	**108**	**5 ****	**0.20**	**0.040**	Fresh
MMC261					**130**	**132**	**2**	**0.17**	**0.004**	Fresh
MMC262	6,771,525	497,785	108	-60/237	**0**	**10**	**10**	**0.03**	**0.174**	Oxide
MMC262					**10`**	**22**	**12**	**0.08**	**0.255**	Fresh
MMC262					24	26	2	0.03	0.064	Fresh
MMC262					32	37	5	0.04	0.008	Fresh
MMC262					61	63	2	0.24	0.019	Fresh
MMC262					95	97	2	0.01	0.063	Fresh
MMC263	6,771,657	497,777	156	-60/237	10	15	5	0.07	0.005	Fresh
MMC263					**23**	**39**	**16**	**0.14**	**0.045**	Fresh
MMC263					60	62	2	0.07	0.012	Fresh
MMC263					68	70	2	0.16	0.001	Fresh

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Mulgine Hill Moly Prospect, RC Drilling (>2m at 0.05 % WO_3 + Mo) for Molybdenum - Tungsten Mineralisation										
Hole No	MGA Coordinates				Intersections					
	Northing (m)	Easting (m)	Depth (m)	Dip/ Azim	From (m)	To (m)	Interval (m)	WO_3%	Mo%	Weath.
MMC263					80	84	4	0.18	0.062	Fresh
MMC263					87	91	4	0.01	0.092	Fresh
MMC263					93	102	9	0.05	0.056	Fresh
MMC263					119	121	2	0.03	0.034	Fresh
MMC263					129	132	3	0.04	0.021	Fresh
MMC263					145	156	11	0.09	0.043	Fresh
MMC264	6,771,620	497,705	102	-60/237	5	16	11	0.02	0.062	Oxide
MMC264					**21**	**27**	**6**	**0.04**	**0.215**	Fresh
MMC264					37	39	2	0.03	0.040	Fresh
MMC264					45	50	5	0.03	0.092	Fresh
MMC264					54	57	3	0.05	0.036	Fresh
MMC264					76	78	2	0.01	0.067	Fresh
MMC264					89	91	2	0.19	0.175	Fresh

*1m cone split RC samples. Analysis is XRF determination by Nagrom laboratories, Kelmscott WA. Lower cut-off grade 0.05% combined WO_3 plus Mo, no top cut grade. All high-grade intervals greater than 1.00% WO_3 listed. Grid coordinates are MGA Zone 50. Fresh – contains fresh scheelite, Weath. – tungsten present in another mineral species. * Contains preliminary composite samples. ** Interval previously reported in ASX release dated 30 October 2018.*

Sterilisation RC Drilling (>2m at 0.10 % WO_3 + Mo) for Tungsten - Molybdenum Mineralisation										
Hole No	MGA Coordinates				Intersections					
	Northing (m)	Easting (m)	Depth (m)	Dip/ Azim	From (m)	To (m)	Interval (m)	WO_3%	Mo%	Weath.
MMC253	6,771,104	497,018	76	-60/090	No Significant Intersections					
MMC254	6,771,104	496,961	76	-60/090	No Significant Intersections					
MMC255	6,771,448	496,130	78	-60/090	No Significant Intersections					
MMC256	6,771,450	496,049	78	-60/090	No Significant Intersections					
MMC257	6,771,548	496,128	78	-60/090	No Significant Intersections					
MMC259	6,771,547	496,051	78	-60/090	No Significant Intersections					

*1m cone split RC samples. Analysis is XRF determination by Nagrom laboratories, Kelmscott WA. Lower cut-off grade 0.10% combined WO_3 plus Mo, no top cut grade. All high-grade intervals greater than 1.00% WO_3 listed. Grid coordinates are MGA Zone 50. Fresh – contains fresh scheelite, Weath. – tungsten present in another mineral species. * Contains preliminary composite samples.*

Trench Diamond (PQ) Drilling (>2m at 0.10 % WO_3 + Mo) for Tungsten - Molybdenum Mineralisation										
Hole No	MGA Coordinates				Intersections					
	Northing (m)	Easting (m)	Depth (m)	Dip/ Azim	From (m)	To (m)	Interval (m)	WO_3%	Mo%	Weath.
MMD011	496,696	6,773,38	93.1	-60/135	Assays Pending					
MMD012	496,475	6,772,95	87.1	-60/130	Assays Pending					
MMD013	496,323	6,772,92	177	-90	Assays Pending					
MMD014	496,128	6,772,65	171	-90	Assays Pending					

Grid coordinates are MGA Zone 50.

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Appendix 2 - JORC Code Reporting Criteria

Section 1 Sampling Techniques and Data

SECTION 1: SAMPLING TECHNIQUES AND DATA

Criteria	JORC Code explanation	Commentary
Sampling techniques	*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.*	Mulgine Trench and Mulgine Hill are sampled using Reverse Circulation (RC) and Diamond Drilling (DD) over multiple drilling campaigns. The latest drilling campaign was completed by Tungsten Mining utilising RC and PQ_3 diamond drilling. A total of 103 Tungsten Mining RC (6,261m) and 4 diamond (528.2m) drillholes were drilled in the latest campaign and the majority of the holes were drilled at approximately 90° perpendicular to strike. Diamond holes were drilled to intersect intersect stratigraphy and mineralisation at 60° - 90°.
	Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used	Tungsten Mining drillhole collar locations were picked- up by a licenced surveyor using an RTK GPS accurate to +/- 10mm North +/- 10mm East and +/- 15mm RL. Certified standards were inserted into the sample sequences in according to Tungsten Mining QAQC procedures. These certified standards fell within expected ranges for tungsten (i.e. all standards fell within two standard deviations of the mean). A small number of molybdenum standards were inserted into the sample sequence. The 0.095% Mo standard fell within expected ranges. Duplicate samples were collected to check repeatability of sampling and variability or nugget effect for tungsten and molybdenum mineralisation. Results from this QAQC sampling were considered acceptable with an R^2 value of 0.80 and 0.99 for WO_3 and Mo respectively.
	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 (e.g. '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 (e.g. submarine nodules) may warrant disclosure of detailed information	The RC drilling crew collected 1 metre intervals from the cyclone and the sample was split using a cone splitter to produce two representative 2 – 4 kilogram samples in calico bags. The cone splitter was cleaned by hosing with pressurised air to eliminate sample contamination. One of the calico samples is for analysis and the second duplicate sample is retained as a reference sample for possible reanalysing / QAQC activities. For PQ diamond holes the core was split using a diamond saw produce a half core sample and sampled at 1m intervals. Core was orientated and the same side of the core was submitted for analysis. One half of the cut core is left in core boxes and retained in core storage. The core that is not sampled is kept uncut. Tungsten Mining samples were submitted to Nagrom Laboratory of Kelmscott for analysis by XRF Tungsten Suite.
Drilling techniques	*Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (e.g. core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).*	Tungsten Mining completed 103 RC drillholes in the latest phase of drilling. RC holes depths ranged from 6 to 180 m, averaging 60.8 m. RC drilling used a face-sampling hammer that produced a nominal 135 – 145mm diameter hole. Tungsten Mining drilled 4 PQ_3 diamond drillholes. Diamond holes were drilled from 87.1 to 177m, averaging 132m. Core was orientated using either an Ace Orientation tool or an OriShot Orientation tool Diamond drill and RC holes were surveyed in-rods at 30 meter intervals using a gyroscopic probe.

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Criteria	JORC Code explanation	Commentary
Drill sample recovery	*Method of recording and assessing core and chip sample recoveries and results assessed*	RC sample recovery was visually assessed, recorded on drill logs and considered to be acceptable within the mineralized zones. Diamond core recovery is logged and recorded in the database. No significant core loss issues exists.
	Measures taken to maximise sample recovery and ensure representative nature of the samples	RC samples were visually checked for recovery, moisture and contamination. A cyclone and cone splitter were used to provide a uniform sample and these were routinely cleaned. The drill contractor blew out the hole at the beginning of each drill rod to remove excess water and maintain dry samples. Diamond core was reconstructed into continuous runs for orientation marking, depths being checked against the depth marked on the core blocks and core recovery.
	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.	Ground conditions for RC drilling were good and drilling returned consistent size samples. All RC samples were dry. Contamination would be minimal for dry samples. Sample recovery for diamond holes is generally very high. No significant bias is expected, and any potential bias is not considered material at this stage.
Logging	*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.*	Tungsten Mining uses specially designed drill logs for tungsten mineralisation to capture the geological data. During logging part of the RC sample is washed, logged and placed into chip trays. All samples are UV lamped and a visual estimate of scheelite content made. The chip trays are stored in Tungsten Mining's core yard in Perth or in a sea container on site. All drill data is digitally captured and stored in a central database.
	Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.	RC chips logging included records of lithology, mineralogy, textures, oxidation state and colour. Visual estimates of percentages of key minerals associated with tungsten and molybdenum mineralisation and veining are made. Diamond core was geotechnically logged for recovery and RQD. Information on structure, lithology and alteration zones were recorded. All drill core is photographed in natural and UV light. Diamond core trays are stored at TGNs Perth yard for future reference.
	The total length and percentage of the relevant intersections logged	All drill holes were logged in full.
Sub-sampling techniques and sample preparation	*If core, whether cut or sawn and whether quarter, half or all core taken.*	All PQ diamond drill core was cut in half by an Almonte diamond saw. A half core 1m sample was placed in calico bags and sent to Nagrom the Mineral Processor for analysis.
	If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.	RC samples were collected by a cyclone attached to the drill rig. Material was split by a cone splitter immediately beneath the cyclone to produce two 2 – 4 kg samples. Samples are logged as dry or wet.
	For all sample types, the nature, quality and appropriateness of the sample preparation technique.	Samples were dried, crushed to 6.3mm using a jaw crushers. Samples in excess of 2kg are riffle split and pulverised to 80% passing 75µm in LM5 pulveriser.

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Criteria	JORC Code explanation	Commentary
	Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.	Field QAQC procedures included the insertion of field duplicates and commercial standards. Duplicates and standards were inserted at intervals of one in every 30 samples. Duplicate were inserted from material logged as being mineralised either by UV lamping or observation of molybdenite.
	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.	Approximately 1 in 30 RC field duplicates were taken from 1m cone split samples at the rig. Results from this QAQC sampling were considered acceptable with an R^2 value of 0.80 and 0.99 for WO_3 and Mo respectively.
	Whether sample sizes are appropriate to the grain size of the material being sampled.	Sample sizes are considered to be appropriate to accurately represent the tungsten mineralisation at Mt Mulgine based on the thickness and consistency of the intersections, the sampling methodology and the percent value assay ranges for the primary elements.
Quality of assay data and laboratory tests	*The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.*	XRF has proven to be a very accurate analytical technique for a wide range of base metals, trace elements and major constituents found in rocks and mineral materials. Glass fusion XRF is utilised for assaying, since it provides good accuracy and precision; it is suitable for analysis from very low levels up to very high levels
	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.	A handheld magnetic susceptibility meter (KT-10) was used to measure magnetic susceptibility for every sample. Data is stored in the database.
	Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.	Field QAQC procedures included the insertion of field duplicates and commercial standards. Certified standards fell within expected ranges for tungsten (i.e. all standards fell within two standard deviations of the mean). A small number of molybdenum standards were inserted into the sample sequence. The 0.095% Mo standard fell within expected ranges.
Verification of sampling and assaying	*The verification of significant intersections by either independent or alternative company personnel.*	No independent personnel have verified intersections in RC drilling. Tungsten Mining personnel conducted UV lamping to visually estimate scheelite content and confirm drill intersections. A visual estimate is made and recorded of molybdenite content.
	The use of twinned holes.	In previous campaigns, Tungsten Mining drilled nine RC holes and Hazelwood Resources drilled five diamond to twin historic diamond holes. Twin holes intersected similar widths and grades of tungsten mineralisation, however they demonstrate that very high grade zones were found to be variable or nuggety.
	Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.	Geological logging of RC holes takes place at the drilling site on "ruggedized" computers. Standardised Excel logging templates are used to capture the drill data and once validated by the supervising geologist are sent to Perth office. Data is then loaded into Micromine and validated for logging codes, missing intervals, overlapping intervals, hole location and downhole surveying. Validated data is then loaded into a relational database for storage.

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Criteria	JORC Code explanation	Commentary
	Discuss any adjustment to assay data.	No adjustments were made, other than for values below the assay detection limit which have been entered as half of the detection limit.
Location of data points	*Accuracy and quality of surveys used to locate drillholes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.*	Tungsten Mining drillhole collar locations were picked-up by a licenced surveyor using an RTK GPS accurate to +/- 10mm North +/- 10mm East and +/- 15mm RL.
	Specification of the grid system used.	Geocentric Datum of Australia 1994 (GDA94) - Zone 50.
	Quality and adequacy of topographic control.	High resolution aerial photography and digital elevation survey was flown by Fugro Spatial Solutions Pty Ltd in October 2013 with expected height accuracy of +/- 0.9 metres.
Data spacing and distribution	*Data spacing for reporting of Exploration Results.*	Infill drilling at Mulgine Hill was on 20 metre spaced sections with 40 metre spaced holes. Drill holes for sterilisation drilling was on a 200 by 80 m spacing. Drill holes at Mulgine Hill Moly Prospect was on a 120 by 80 m spacing.
	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.	Not Applicable.
	Whether sample compositing has been applied.	For non-mineralised intervals 1 m samples were composited into 5m composite samples for RC drilling. Any anomalous composite samples will have the 1m cone split samples submitted for analysis. Where intersections quoted in the report have preliminary composite samples included they are identified.
Orientation of data in relation to geological structure	*Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.*	The orientation of drilling was designed to intersect mineralisation perpendicular to the dominant vein geometry and mineralised stratigraphy.
	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.	Geological logging of drill core and interpretation of RC logging and whole-rock geochemistry confirmed that drilling orientation did not introduce any bias regarding the orientation of stratigraphy or vein orientation.
Sample security	*The measures taken to ensure sample security.*	All sample numbers are generated in the site office. Once samples intervals are selected, the numbers are assigned to each sample. The sample number, drillhole name and sampled interval are recorded on the sampling sheets. All sample bags are properly sealed and are couriered by West Star logistics to Nagrom laboratory in Kelmscott.
Audits or reviews	*The results of any audits or reviews of sampling techniques and data.*	Sampling techniques are consistent with industry standards. Consistency of data was validated by Tungsten Mining while loading into the database (Depth from < Depth to; interval is within hole depth, check for overlapping samples or intervals, etc.). Any data which fails the database constraints and cannot be loaded is returned for validation, etc.). Global consistency was also checked later by plotting sections using the database and reconciling assays. Assay results are visually compared against UV estimates for tungsten and visual estimates for molybdenum.

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SECTION 2: REPORTING OF EXPLORATION RESULTS

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	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.	The Mulgine Hill prospect is located on Mining Lease M59/425-I covering an area of approximately 9.4 km^2. Tungsten Mining has 100% of the mineral rights for tungsten and molybdenum. The current registered holder of the tenement is Minjar Gold Pty Ltd. The normal Western Australian state royalties apply.
	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.	The tenements are in good standing.
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	Minefields and ANZECO drilled 213 NQ/BQ diamond drillholes (10,631m DD, 2,355m precollars) at Mulgine Hill in the 1970s and 1980s. Hazelwood completed 5 NQ diamond drillholes in February 2011 to twin earlier drilling. Minefields and ANZECO drilled 63 NQ/BQ diamond drillholes (7,337m DD, 1,644m precollars) at Mulgine Trench during the 1970s and 1980s. Vital Metals drilled one RC hole (149m) in 2008 and Minjar Gold drilled 28 RC holes (1856m) between 2012 to 2014 at Mulgine Trench. Tungsten Mining have conducted a thorough review of all historic drilling. In 1966, Westfield Minerals (WA) NL conducted an exploration programme targeting molybdenum mineralisation at Mulgine Hill. This work involved geological mapping, soil sampling and the drilling of 58 percussion holes. Westfield Minerals were investigating small working and an adit mined between 1917 and 1922. Drilling identified significant molybdenum mineralisation over 650 metres of strike associated with these working. Westfield Minerals encountered problems with assaying for molybdenum using AAS analysis, but reported better repeatability using XRF analysis. Final reported grades were largely AAS and therefore this drilling is only being used as a targeting tool.

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Geology	Deposit type, geological setting and style of mineralisation.	Tungsten-molybdenum mineralisation at Mt Mulgine is associated with the Mulgine Granite - a high-level leucogranite forming a 2km stock intruding the Mulgine anticline. The intrusion is associated with intense hydrothermal alteration with late stage fluids containing tungsten, molybdenum, gold, silver, bismuth and fluorite. The Hill Deposit occurs along the northern margin of the Mulgine Granite preserved in an arcuate dominantly north northeast trending trough. The main mineralised zone occurs along the upper contact of the phlogopite schist where scheelite has been deposited either as coarse disseminations within the quartz-muscovite (fluorite-apatite) greisen or within numerous quartz and greisen veins in both the pyritic phlogopite schist and the quartz-muscovite greisen. Overlying the main zone are multiple less continuous zones hosted by the greisenised granite. Tungsten mineralisation at Mulgine Trench is hosted by quartz-scheelite veins in mafic and ultramafic volcanics in a 100 to 180 metres thick zone that extends over 1.5 kilometres of strike. Mineralisation is open along strike and down dip and is associated with foliation parallel quartz veins generally less the 10cm in width. Strongest mineralisation is where quartz veining averages 15 – 20% of the total rock volume. Recent drilling by Tungsten Mining has identified significant tungsten-molybdenum mineralisation associated with the Mulgine Granite contact south of Mulgine Hill. Mineralisation is associated with quartz veining hosted by greisen and mafic units over a strike length of one kilometre and is open to the south. Tungsten Mining drilling also identified broad zones of shallow southerly dipping tungsten-molybdenum mineralisation associated with potassic alteration and veining in mafic units to the east of Mulgine Hill. Alteration and veining is similar to that at Mulgine Hill, situated close the Mulgine Granite contact and open to the east.
Drill hole Information	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: • easting and northing of the drill hole collar • elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar • dip and azimuth of the hole • down hole length and interception depth • hole length.	All relevant data for Tungsten Mining's drilling conducted in August to October 2018 is tabulated in Appendix 1.
Data aggregation methods	In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated.	For prospects where there is significant molybdenum present (>0.02% Mo), intersections were reported using a lower cut-off grade 0.10% combined WO_3 plus Mo. WO_3 and Mo grades are reported separately for intersections. No top cut and up to 2m of internal waste was used.
	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.	All high-grade assays >1.0% WO_3 and/or Mo are reported beneath the relevant intersection. Interval waste up to 2m is included in intersections provided the adjacent zone and waste are >0.10% combined WO_3 plus Mo.
	The assumptions used for any reporting of metal equivalent values should be clearly stated.	Not applicable.

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Criteria	JORC Code explanation	Commentary
Relationship between mineralisation widths and intercept lengths	These relationships are particularly important in the reporting of Exploration Results. If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported. If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g. 'down hole length, true width not known').	Drilling is generally perpendicular to the strike of mineralisation. Holes intersect mineralisation at between 70 - 90° and true thickness will be between 70 – 100% of the intersection thickness.
Diagrams	Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.	Refer to diagrams in the body of text and Appendix 1 for drill intersections.
Balanced reporting	Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.	All Intersections greater than 2m at 0.10% combined WO_3 plus Mo at Mt Mulgine are reported and holes with no significant mineralisation are documented in Appendix 1.
Other substantive exploration data	Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.	**Mulgine Hill** Mineralogical and metallurgical studies on the Mulgine Hill deposit showed scheelite was well liberated below 0.3mm and gave high recoveries using x-ray ore sorting, gravity separation tables and flotation. X-ray Ore sorting to remove gangue material prior to milling, gravity treatment and flotation will significantly reduce the processing plant footprint, capital and operating costs. Cleaning of the final concentrate to achieve the required grade was achieved using flotation at ambient temperature. Evidence gathered to date shows that no metallurgical problems are expected to affect the overall viability of the project. These results re-inforce the metallurgical test work completed in the 1970s and 1980s that showed that the ore as represented by the samples tested was readily concentrated to a 65% WO_3 concentrate at an estimated recovery of 80%
Further work	The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling). Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive	Further drilling is planned to complete 40 metre spaced sections with a 40 metre hole spacing at Mulgine Trench to improve the confidence level in the Mineral Resource estimate.