North Stawell Minerals

X Announcement

27 April 2022

AC drilling identifies large gold anomaly at Lubeck Tip

AC drilling returns multiple thick anomalous grades on multiple lines to match encouraging geology and structure and the Stawell mineralisation model.

Highlights:

- Aircore drilling into the virgin Lubeck Tip target returned multiple anomalous gold results in 13 of 23 holes along the 1,500m target. Coincident arsenic anomalism amplifies the prospectivity.
- Gold mineralisation returned in drilling includes several thick intercepts of anomalous grades, and remains open along strike to the north and south, and is not constrained to the west which makes Lubeck Tip a compelling target for further drilling with increased potential for a significant gold system
- The Lubeck Tip target includes multiple similarities to Stawell-type gold prospects, including overlapping magnetic and gravity anomalies, a key vector to mineralisation
- The Lubeck Tip program is the 6th target with returned results in NSM's regional aircore program. Following the first pass drilling, most encouraging areas will be returned to for infill drilling.
- RC drilling continues in the southern tenements testing several known gold trends to the north and west of the Stawell Mine, principally at the Darlington trend of historic mines, the historic Germania field at the margin of the Murray Basin,
- NSM is fully funded to execute its exploration activities with \$10.0m cash at December 30, 2021.



NORTH STAWELL MINERALS LTD ACN 633 461 453 ABN 84 633 461 453

Victorian gold explorer North Stawell Minerals Ltd (ASX:NSM) (North Stawell or the Company) is pleased to provide an update on its exploration programs. The aircore rig has continued the regional, first pass drill program, targeting mineralisation beneath shallow cover that has potential to be structural repeats of the multi-million ounce gold deposit at Stawell.

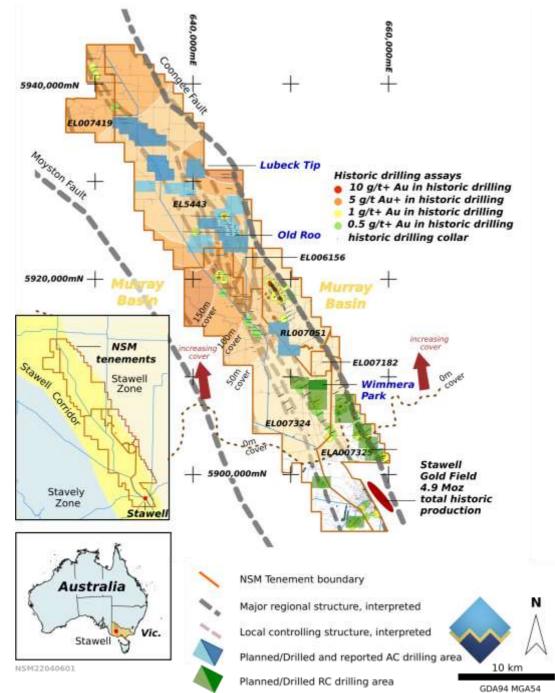


Figure 1. NSM tenure map highlighting areas with planned aircore drilling and RC drilling. The image also shows the position of the Stawell Gold Mine, major interpreted structures, the edge of the Murray Basin cover, approximate depth to basement and historic drilling collars with gold anomalism based on individual assays grades downhole.



North Stawell Minerals Chief Executive Russell Krause said:

"Results for the aircore program at Lubeck Tip highlight primary greenfield success for the regional aircore program. The drilling has confirmed a geophysics target that is now demonstrated to include prospective geology, alteration, gold and arsenic anomalism coincident with the target, and matching the Stawell-mineralisation model. The anomalous gold intercepts, which remain open along strike, identifying Lubeck Tip a compelling target for further drilling.

This is exactly what the aircore rig has been tasked to achieve – confirm the gold-prospectivity of geophysics-derived targets masked by a blanket of Murray Basin sediments for follow up, focussed drilling. The multiple, broad, anomalous gold intercepts at Lubeck Tip may indicate that the drilling is testing a larger system. The multiple intercepts in this program and interesting geology is very encouraging, including Lubeck Tip which is a high-order target.

Lubeck Tip drilling indicates that the source of the geophysics target is deeper than the aircore drilling has tested – meaning that the system has not been 'unroofed' by erosion.

NSM now has results returned for six priority prospects. Five of the targets have returned encouraging, anomalous gold results that warrant follow up with tighter spaced drilling. Four of the prospects are previously untested, and based on successful targeting with recently acquired, high resolution geophysics data. Broad, low-grade results are interpreted to indicate potential for nearby significant mineralisation – opening up additional targets for continued exploration.

Exploration remains focused on testing the best targets with first pass drilling through the current drilling season to ensure next phase drilling focuses on the targets most likely to maximises shareholder value.

NSM regards the northern Stawell Mineralised Corridor, over which NSM has a commanding ground position, to be one of Australia's most prospective and historic gold provinces.

An RC rig is on site and has started drilling several priority targets that are better suited to a rig with deeper drilling capabilities – particularly in the southern tenements.

Exploration Strategy

North Stawell Minerals is exploring for repeats of the multi-million ounce Stawell Mine under a thin blanket of un-mineralised sedimentary cover (the Murray Basin). A distinct advantage of exploring for this type of mineralisation is that a basalt core controls mineralisation sites, and the basalt can be remotely mapped with geophysics (i.e. beneath the blanket of cover). A high resolution airborne gravity survey conducted in the June Qtr FY21 completed the data suite required to efficiently explore, and an aircore rig has been testing regional targets since October 2021.

Within the basalt structures, additional targeting is possible. Observations of controls on mineralisation in the Stawell Mine and modelling of ore-controls indicate that mineralisation is most likely to occur on the contacts (or proximal to the contacts) of the basalt cores where changing geometries create dilation zone (fold hinges, embayments, etc) and create space



where mineralisation is deposited. Where these locations are interpreted in geophysics, drilling is prioritised.

Lubeck Tip in detail

Twenty-three aircore holes were completed for 1,563m at Lubeck Tip (Figures 1, 2). Drilling was on four lines spaced on 150-600m (Figure 2, 3) testing a discrete gravity and magnetic target with no prior drilling. Drill holes on each line are approximately 100m apart.

Gold mineralisation returned in drilling includes several thick intercepts of anomalous grades, and remains open along strike to the north and south, and is not constrained to the west (Figure 2, 3). The geophysical target is also open to the north, south and west, and totals 1,500m in strike length. 13 of 23 holes returned anomalous gold grades (Table 1). Four of the drillholes end in anomalous gold grades.

Better anomalous results at Lubeck Tip include:

- 30 m at 0.1 g/t Au from 39m (NSAC0173),
- o 22 m at 0.11 g/t Au from 47m (NSAC0172)*,
- 18 m at 0.11 g/t Au from 50m (NSAC0165),
- 16 m at 0.11 g/t Au from 49m (NSAC0171)*
- 3 m at 0.52 g/t Au from 54m (NSAC0163).

* Ends in anomalous gold

Results occur over 1,000m strike of the geophysics anomaly (1,500m total) and are notable for the wide zones identified (200-380m). This laterally extensive zone with broad downhole anomalous gold is a very encouraging indicator that the drilling has identified an area with increased potential for a significant gold system.

The interpreted structural architecture further enhances the prospectivity of the target. Located on the eastern margin of the Stawell Gold Corridor, Lubeck Tip lies in a similar structural position to Stawell, Wildwood and Kewell, which all have demonstrated gold mineralisation (Figure 1). The target is likely the northern continuation of the Old Roo prospect, 5.5km to the south (Figure 1, ASX announcement 5 April, 2022). The target is also hosted in the hanging wall of thrust slice in a regionally significant transpressional fault system, and the anomalous gold occurs between two bounding faults (Figure 2, 4). Areas with more complicated structural geology can create additional opportunities for gold mineralisation emplacement.

Geophysical inversion modelling (Figure 4, ASX announcement 29 Oct, 2021) interprets the basalt dome to be near-surface but drilling has intersected altered metasediments throughout. This is interpreted to indicate that the top of the potential mineralisation system has not been eroded off prior to the Murray Basin cover being deposited. As such, the 'roof' of the ore system may be intact, potentially explaining the broad zones of anomalous mineralisation observed. The geology also supports a prospective gold system. **and includes multiple similarities to Stawell-type gold prospects:**

- Located in the hanging wall of a major regional fault,
- Located in the far east of the Stawell Gold Corridor,
- Geology includes extensive sericite and chlorite alteration,
- Pyrite-pyrrhotite-arsenopyrite sulphides occur in multiple holes,



- o Increased quartz veining occurs throughout,
- Local porphyry dykes occur.
- Overlapping magnetic and gravity anomalies, with interpreted geological complexity are a vector to mineralisation.

Host rocks include variable chlorite and sericite alteration, typical of Stawell-type hydrothermal mineral systems. Multiple species of sulphides occur, including pyrrhotite, pyrite, arsenopyrite and minor chalcopyrite. Quartz veining is increased at the target and porphyry dykes (which exploit pre-existing structures at Stawell and Wildwood) have been identified in drill cuttings. Arsenic occurs discretely in the target area, and generally increases to the south. Also apparent from the drilling, the basement is more elevated through the areas with gold occurrences. This relationship is not unusual around the Stawell Corridor, with the silicification in the host rocks making the geology more weathering resistant, and becoming more elevated.

No significant gold results (>1g/t Au) were returned at Lubeck Tip aircore program. Re-splits of 3m composites are not yet returned.

Anomalous gold results (>0.05g/t Au) at Lubeck Tip are summarised in Table 1.

Hole ID	Prospect	Easting	Northing	RL	Azi.	Dip	Final Depth	Results Anomalous
		MGA54	MGA54	asl	deg	deg	(m)	(g/t Au)
NSAC0163	Lubeck Tip	640317	5930612	151	0	-90	78	3 m at 0.52 g/t Au from 54m
NSAC0164	Lubeck Tip	640413	5930606	151	0	-90	60	7 m at 0.09 g/t Au from 53m*
NSAC0165	Lubeck Tip	640607	5930608	151	0	-90	75	18 m at 0.11 g/t Au from 50m
NSAC0166	Lubeck Tip	640714	5930602	151	0	-90	78	6 m at 0.13 g/t Au from 60m
NSAC0167	Lubeck Tip	640512	5930604	151	0	-90	65	6 m at 0.09 g/t Au from 54m
NSAC0169	Lubeck Tip	640112	5931024	151	0	-90	83	3 m at 0.08 g/t Au from 69m
								3 m at 0.06 g/t Au from 75m
								2 m at 0.05 g/t Au from 81m*
NSAC0170	Lubeck Tip	640203	5931022	151	0	-90	67	6 m at 0.075 g/t Au from 47m
								9 m at 0.06 g/t Au from 56m
NSAC0171	Lubeck Tip	640410	5931021	151	0	-90	65	6 m at 0.05 g/t Au from 40m
								16 m at 0.105 g/t Au from 49m*
NSAC0172	Lubeck Tip	640316	5931016	151	0	-90	69	22 m at 0.11 g/t Au from 47m*
NSAC0173	Lubeck Tip	640509	5931013	151	0	-90	72	30 m at 0.10 g/t Au from 36m
NSAC0174	Lubeck Tip	640315	5931630	151	0	-90	74	3 m at 0.05 g/t Au from 68m
NSAC0179	Lubeck Tip	640230	5930870	151	0	-90	68	3 m at 0.06 g/t Au from 43m
NSAC0180	Lubeck Tip	640338	5930871	151	0	-90	57	3 m at 0.06 g/t Au from 48m

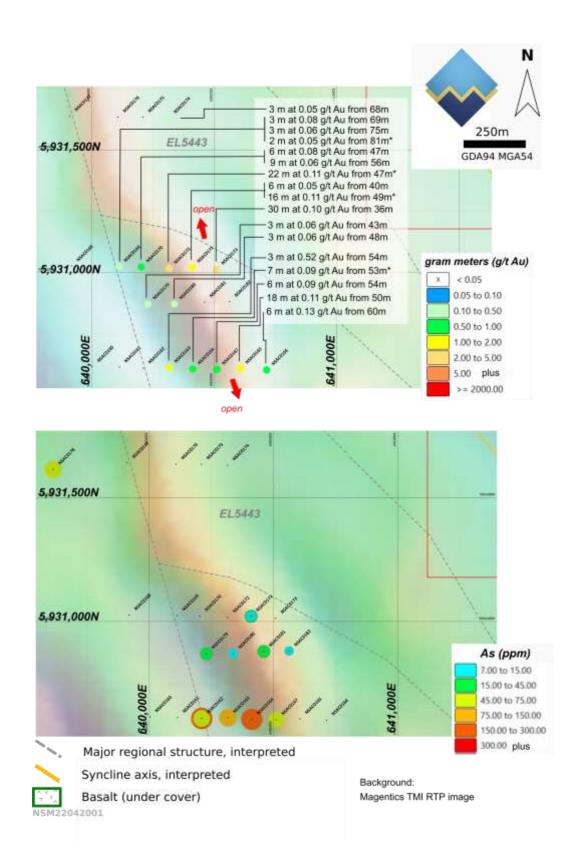
Table 1 Anomalous gold results, Lubeck Tip target.

* Drillhole ends in anomalous grades

Anomalous results include grades >0.05g/t Au. Grades are combined into composites where adjacent assay results have an average grade greater than 0.05g/t Au. No internal or external dilution is applied. Stated thicknesses are downhole and unlikely to be represent true mineralisation widths.



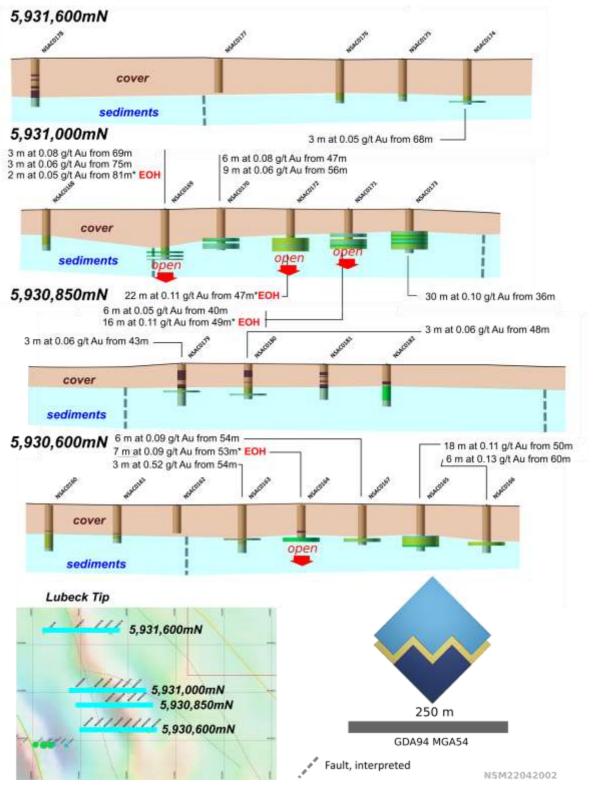
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Figure 2. Lubeck Tip collar plan. NSM AC holes (NSAC) are labelled. Historic holes and historic results are also shown for gold (g/t Au) as gram meters (intercept grade x intercept width) and arsenic (ppm) results.



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SACOLT 5932000 Lubeck Tip gravity inversion target gram meters (g/t Au) 315001 < 0.05 0.05 to 0.10 0.10 to 0.50 0.50 to 1.00 1.00 to 2.00 2.00 to 5.00 5.00 plus 500m >= 2000.00

Figure 3. Cross sections with anomalous gold and simplified geology, Lubeck Tip.

NSM22042003

Figure 4. Othographic image of the geophysical inversion model at Lubeck Tip. AC drilling is shown with gram-meter intercepts. The correlation between gold and the model is evident.

RC program.

A multipurpose rig is on site and drilling. The first hole was collared at the Wimmera Park prospect, 12km along strike from the Stawell Mine (Figure 1).

The RC rig will test several known gold trends to the north and west of the Stawell Mine, principally at the Darlington trend of historic mines, the historic Germania field at the margin of the Murray Basin, and the Deep Lead and Pleasant Creek prospects in the western tenements. Details of the RC program will be released as the rig completes target areas.

This Announcement is authorised for release by Russell Krause, Chief Executive Officer of North Stawell Minerals Ltd

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For further information visit the website: <u>https://www.northstawellminerals.com/</u> Visit us on LinkedIn: <u>https://www.linkedin.com/company/north-stawell-minerals/</u> Visit us on Twitter: <u>https://twitter.com/NorthStawell</u> <u>About North Stawell Minerals Limited:</u>

North Stawell Minerals Limited (ASX: NSM) is an Australian-based gold exploration company, solely focused on discovering large scale gold deposits in the highly prospective Stawell Mineralised Corridor in Victoria.

The Company is exploring prospective tenements located along-strike of and to the immediate north of the Stawell Gold Mine which has produced in excess of five million ounces of gold. NSM's granted tenure has a total land area of 450 km². NSM believes there is potential for the discovery of large gold mineralised systems under cover, using Stawell Gold Mine's Magdala orebody as an exploration model to test 51km of northerly strike extension of the underexplored Stawell Mineralised Corridor.

Stawell-type mineralisation - the Magdala Mine at Stawell

The multi-million ounce Magdala Mine (or Stawell Mine) is owned and operated by Stawell Gold Mines (SGM) and makes an excellent model for exploration. The style of mineralisation is termed Orogenic Gold, and has many similarities to other Victorian gold deposits (e.g. Bendigo, Ballarat, Fosterville) where the mineralisation exploits structures that are developing as the host rocks are compressed, folded and faulted. The mine is 3.5km long, approx. 400m wide and mined to depths of around 1,600m. The mineralisation is centred on a large buttress of doubly-plunging basaltic rock (the Magdala "Dome"). Ore shoots are on – or proximal to – the margins of the basalt, occurring where the structures that control the mineralisation bend and warp around the basalt. The mine is still operational.

Exploring for Stawell-type mineralisation through cover.

Stawell Mine was found in the 1850's because it occurred close to the surface and was not obscured by a blanket of sedimentary cover. Over 80% of NSMs tenements are masked by sediments, but the underlying rocks and structures are similar to Stawell. Multiple repeats of basaltic "domes" are interpreted throughout the NSM tenements and elsewhere along the Stawell Corridor. Some of these have been drill-tested and demonstrate that mineralisation similar to Stawell can occur. A significant advantage for exploring for Stawell-type mineralisation is that the basalt domes - intrinsically associated with mineralisation – can be detected with geophysics, and identified through the cover. New geophysical processing and acquisition by the company is levering off the geophysics response to find "domes" as a pathway to mineralisation.

Other Mineralisation potential

Multiple shears, thrusts, faults and folds occur through the NSM tenements. These also have potential to host orogenic gold systems without basalt domes. However, they are more challenging targets through the covering sediments as they lack the geophysical signature of the domes found in Stawell-type mineralisation. Late granites intrude the folded rocks have potential to remobilise and upgrade existing mineralisation, or be mineralised themselves.



Competent persons Statement

The information that relates to Exploration Targets, Exploration Results and Mineral Resources is based on information compiled by Mr Bill Reid, a Competent Person who is a Member of The Australian Institute of Geoscientists (AIG) and Head of Exploration of North Stawell Minerals. Mr Reid 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' (2012 JORC Code). Mr Reid consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

Forward-Looking Statements

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

Appendix 1: NSM Tenure Summary

Tenement	Status	Number	Area (km2)	Graticules ¹	Initial NSM holding	Earn-in potential
Wildwood	Granted	RL007051	50	50	51%	90%
Barrabool	Granted	EL5443	182	194	51%	90%
Glenorchy	Granted	EL006156	10	18	100%	n/a
West Barrabool Wimmera Park	Granted	EL007419	37	40	100%	n/a
Granite	Granted	EL007182	4.5	9	100%	n/a
Deep Lead	Granted	EL007324	167	209	51%	90%
Germania	Granted	EL007325	54	82	51%	90%
Total granted			504.5	602		



¹ Exploration Licence areas in Victoria are recorded as graticular sections (or graticules). Graticules are a regular 1km by 1km grid throughout the state. The graticular sections recorded for an exploration licence is the count of each full graticule and each part graticule. If the tenement shape is irregular, the actual area (km²) is less than the graticular area.

Appendix 2:	Lubeck Tip	o program	collars

Hole ID	Easting	Northing	RL	Azimuth	Dip	Final Depth	Assays
	(MGA54)	(MGA54)	(asl)	(deg)	(deg)	(m)	
NSAC0160	640003	5930615	151	0	-90	75	NSA
NSAC0161	640114	5930613	151	0	-90	62	NSA
NSAC0162	640211	5930609	151	0	-90	46	NSA
NSAC0163	640317	5930612	151	0	-90	78	NSA
NSAC0164	640413	5930606	151	0	-90	60	NSA
NSAC0165	640607	5930608	151	0	-90	75	NSA
NSAC0166	640714	5930602	151	0	-90	78	NSA
NSAC0167	640512	5930604	151	0	-90	65	NSA
NSAC0168	639919	5931026	151	0	-90	68	NSA
NSAC0169	640112	5931024	151	0	-90	83	NSA
NSAC0170	640203	5931022	151	0	-90	67	NSA
NSAC0171	640410	5931021	151	0	-90	65	NSA
NSAC0172	640316	5931016	151	0	-90	69	NSA
NSAC0173	640509	5931013	151	0	-90	72	NSA
NSAC0174	640315	5931630	151	0	-90	74	NSA
NSAC0175	640210	5931634	151	0	-90	69	NSA
NSAC0176	640108	5931634	151	0	-90	72	NSA
NSAC0177	639911	5931639	151	0	-90	55	NSA
NSAC0178	639613	5931613	151	0	-90	78	NSA
NSAC0179	640230	5930870	151	0	-90	68	NSA
NSAC0180	640338	5930871	151	0	-90	57	NSA
NSAC0181	640461	5930879	151	0	-90	58	NSA
NSAC0182	640563	5930881	151	0	-90	69	NSA

NSA – No significant assay (>1g/t Au). Anomalous results (0.05 -1.0 g/t Au) are discussed in text.



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JORC Table 1

Section 1 Sampling Techniques and Data - a. Aircore Drilling

Section 1 Sampling Techniques and Data - b. Historic Drilling

a. Aircore Drilling

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

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	Sampling is conducted by collecting rock chips via aircore drilling Dry samples will be split with a 1/8 th riffle splitter.
	 gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling. Include reference to measures taken to ensure 	Wet sample comprise grabs. Each meter sampled is kept and stored for resplits and or follow up analysis.
	 sample representivity and the appropriate calibration of any measurement tools or systems used. Aspects of the determination of mineralisation that are Material to the Public Report. 	For wet samples 2-3kg of sample is grabbed every 3m composite. The sample is dried crushed and pulverised at a certified lab (Gekko Ballarat) and assayed for with a 50g charge.
	 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 30g charge for fire assay'). In other 	For each meter of bedrock sample, a geochemistry bag full of sample is taken to be dried for later pXRF analysis
	cases, more explanation may be required, such as where there is coarse gold that has inherent sampling problems.	QAQC samples were inserted into the sample stream approximately every 10th sample, including matrix matched standards (Oreas) and blanks consisting of barren quarry basalt. Repeats are inserted (at least 1/hole and collected by cone and quartering the sample in the field.
		Sample intervals were 3m composites with minor variation at end-of-hole (<=3m). 1m resplits are taken for any composite result that returned >0.17 g/t Au.
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	Drilling is performed by a Mantis 80 Landcruiser mounted rig with 3m NQ rods.
	or standard tube, depth of diamond tails, face- sampling bit or other type, whether core is oriented and if so, by what method, etc).	Holes are vertical
Drill sample recovery	 Method of recording and assessing core and chip sample recoveries and results assessed. Measures taken to maximise sample recovery and ensure representative nature of the samples. Whether a relationship exists between sample 	It is reported that when intercepting significant groundwater, the sample recovery decreased by up to 20%. Each meter is weighed in the field. Drillers are advised if sample return is deteriorating and requires improvement.
	recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.	Downhole sample contamination was reported on 25% of holes and, rarely, 10% of the total sample was contamination. Most of the material is barren



		Murray basin cover. Almost all samples are wet beneath the water table and some of the fine fractions are likely to be lost to overflow from the cyclone.
		End of hole refusal 'core' was recovered on >85% of all holes drilled.
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. Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography. The total length and percentage of the relevant intersections logged. 	 Each hole was logged quantitively into a customized Excel spreadsheet with inbuild validation scripts. All end of hole core was collected and XRF data was collected. The regional, vanguard AC drilling is unlikely to be used to support mineral resource determination.
Sub-sampling techniques and	• If core, whether cut or sawn and whether quarter, half or all core taken.	Sampling protocol was based on observations in the logging and assigned by the rig geologist.
sample preparation	 If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry. For all sample types, the nature, quality and appropriateness of the sample preparation technique. 	The standard sample interval was 3m composites. Resplits to 1m are submitted for any composite over 0.17g/t Au.
	• Quality control procedures adopted for all sub- sampling stages to maximise representivity of samples.	All bedrock (target) samples are wet Samples are kept and 'farmed' for follow up if required.
	 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. Whether sample sizes are appropriate to the grain size of the material being sampled. 	Field duplicates were inserted into the sample stream every ~20th sample. Duplicates were preferentially undertaken on meters that appear to be more likely to contain anomalous Au.
	size of the material being samplea.	Certified reference material (CRM) is inserted into the sample stream on every ~20th sample. CRM was inserted in between on meters that appear to be more likely to contain anomalous Au.
		A blank was inserted into the sample stream after an interpreted anomalous zone or every ~30 samples.
		Every sample was weighed in the field and varied between 1.5 and 3kg.
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.	Analysis for gold is undertaken by ALS by 50g fire assay with an AAS finish to a lower detection limit of 0.01ppm Au using ALS technique Au-AA26.
	• 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.	ALS also conduct a 33 element Fout Acid digest ICP-AES (method: ME:ICP61) analysis on each sample to assist interpretation of pathfinder elements.
	• 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.	Samples processed at Gekko Assay Laboratory are dried,crushed and pulverised (<75um), analysed with Fire Assay for gold with an ICP acid digest for 10 elements (Ag, As, Bi, Cd, Cu, Mo, Pb, Sb, W, Zn).



Internal laboratory QAQC checks are reported by the laboratory and a review of the QAQC reports suggests that the laboratory is performing within acceptable limits. Field duplicates, blanks and standards pass within acceptable variation. Verification of The data has been verified by North Stawell The verification of significant intersections by ٠ sampling and Minerals Competent Person. either independent or alternative company assaying personnel. Data entry is via standardized Company excel The use of twinned holes. templates, using pre-set logging codes, with built Documentation of primary data, data entry in validation checks. procedures, data verification, data storage (physical and electronic) protocols. Data is presently being transferred to a third-party geodatabase; further internal validations before Discuss any adjustment to assay data. export products are generated. Data is further validated visually in GIS and 3D software by North Stawell Minerals Personnel. Location of data The collar coordinates were collected with a Accuracy and quality of surveys used to locate handheld GPS with an accuracy of 1.8m. The points drill holes (collar and down-hole surveys), coordinates are input into the logging spreadsheet trenches, mine workings and other locations used and are viewed in GIS software for validation. in Mineral Resource estimation. Specification of the grid system used. The coordinates were collected in GDA94 / MGA Quality and adequacy of topographic control. zone 54 All collars are levelled to the DEM which was collected by AGG geophysics to a 1m accuracy. Data spacing and Data spacing for reporting of Exploration Results. distribution Whether the data spacing and distribution is Data spacing is typically 100m on drilling lines sufficient to establish the degree of geological and and ~300m between fences. grade continuity appropriate for the Mineral Data is not considered applicable to be included Resource and Ore Reserve estimation for Resource/Reserve estimation. procedure(s) and classifications applied. Whether sample compositing has been applied. Sample compositing has not been applied to this drilling. **Orientation** of Whether the orientation of sampling achieves Drilling was designed as first pass regional data in relation to exploration to collect basement geochemistry data unbiased sampling of possible structures and the geological thorough alluvial cover and hence vertical drilling extent to which this is known, considering the structure is appropriate. deposit type. Angled holes (1) have azimuths perpendicular to the regional trend. *If the relationship between the drilling orientation* . and the orientation of key mineralised structures is No material sample bias is expected or observed. considered to have introduced a sampling bias, this should be assessed and reported if material. Sample security Samples were returned to site each day and stored The measures taken to ensure sample security. inside a secure, fenced area. Samples were loaded into labelled polyweave bags and secured with plastic wrap on pallets prior to transportation.



	Chain of custody is managed by internal staff and transport contractors. Drill samples are stored on site and transported by a licensed reputable transport company to ALS Laboratories or Gekko Assay Laboratories. Sample receipts are issued At the laboratory samples are stored in a secured yard before being processed and tracked through preparation and analysis.
	Sample information other than the company name and the sample ID are not provided to the laboratories.
Audits or reviews • The results of any audits or reviews of sampling	There has been no external audit of the Company's sampling techniques or data.

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,	The Grady Project is located with NSM's 100% owned EL005443. Glenorchy East occurs on RL007051 and EL007324
	partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.	The tenements are current and in good standing. The project area occurs on freehold land.
	• 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.	EL005443 is the subject of royalty agreements (see Appendix 1: NSM tenement summary.
Exploration done by other parties	• Acknowledgment and appraisal of exploration by other parties.	No exploration activity has been undertaken at Radio prospect by previous explorers.analogies were identified with minor associated gold mineralisation. Historic exploration at Gready and Glenorchy East is described in detail in Table 1, Section c – Historic data
Geology	• Deposit type, geological setting and style of mineralisation.	The project areas are considered prospective for the discovery of gold deposits of similar character to those in the nearby Stawell Gold Mine, particularly the 5Moz Magdala gold deposit located over the Magdala basalt dome. The Stawell Goldfield has produced approximately 5Moz Au from hardrock and alluvial sources. More than 2.3Moz Au has been produced since 1980 across more than 3 decades of continuous operation. Orogenic Gold occurrences are possibl away from the basalt domes in typical orogenic gold systems common in Central and western Victoria.
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 	Sections and plans with summaries of assay are included in the body of the document for all drilling completed.
	the drill hole collar o dip and azimuth of the hole	Summary tables of drillhole data are included.



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	 o down hole length and interception depth o hole length. 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. 	Pathfinder elements determined by ICP for Gekko samples are not reported – these are vectors to mineralisation. Where discussed in the text, laboratory analyes for these elements are described in qualitative terms.
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. 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. The assumptions used for any reporting of metal equivalent values should be clearly stated. 	No metal equivalents have been reported No metal equivalent reporting is used or applied. For significant results (<1g/t Au) No external dilution is used. Internal dilution up to 2m so loang as the average grade remains significant
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'). 	All drillholes in this program were vertical. Intercept lengths are down-hole length. Orientations of mineralisation are not known but are expected to be sub-vertical to moderately dipping.
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.	Diagrams are included in this report, including locations, plans and sections and areas mentioned in the text.
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 drill holes have been surveyed by hand-held GPS, which is considered an appropriate degree of accuracy for regional exploration aircore drilling For the exploration results, only significant and anomalous exploration results are reported and described.
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. 	Geophysical data is described in the text. Detailss of the processing methodology are available in Table 1 of the September 2021 Quarterly report and in Table 1, part B: Geophysical inversions.



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Further work

- The nature and scale of planned further work (e.g. Further campaigns of drilling will be based on the tests for lateral extensions or depth extensions or completion of the current aircore programme, 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.

followed by evaluation of the data. For better results, infill drilling is expected to delineate trends.

Other drill rigs (RC or DD as appropriate) will execute any deeper follow up work.

Section 1 Sampling Techniques and Data - c. Historic Drilling

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

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. Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used. 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 30g charge for fire assay'). In other cases, more explanation may be required, such as where there is coarse gold that has inherent sampling problems. 	 Historic results (only depicted on Figures) are from previous exploration conducted by past explorers including Rio Tinto Exploration, WMC Resources, Leviathan Corporation, Highlake Resources, Planet Resources and Stawell Gold Mines.
Drilling techniques	 Drill type (e.g. core, reverse circulation, openhole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (e.g. core diameter, triple or standard tube, depth of diamond tails, facesampling bit or other type, whether core is oriented and if so, by what method, etc). 	 A variety of techniques have been used in historic drilling and includes regional lines of RAB or Aircore drilling (357 of 732 historic holes) over identified structures or geophysical anomalies. Follow up historic RC drilling (233 holes) under AC anomalies occur is sound practice. Pattern drilled RC a Wildwood is likewise an industry standard for resource drilling. Forty-eight historic diamond holes (8,228m) were completed – mainly focused on near Mine targets in the south and in the Wildwood Project area (RL007501). Standard Industry techniques have been used for historic drilling where documented.
Drill sample recovery	• Method of recording and assessing core and chip sample recoveries and results assessed.	• For historic data, if available, drilling data recoveries (e.g. weights for historic AC/RC



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	 Measures taken to maximise sample recovery and ensure representative nature of the samples. 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. 	drilling and recoveries for historic diamond drilling are recorded.No tests for bias are identified as yet for historic results.
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. Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography. The total length and percentage of the relevant intersections logged. 	 Geological logging of historic holes, where reviewed, follows industry common practice. Qualitative logging includes; lithology, mineralogy, alteration, veining and weathering and (for core) structures. All historic logging is quantitative, based on visual field estimates.
Sub-sampling techniques and sample preparation	 If core, whether cut or sawn and whether quarter, half or all core taken. If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry. For all sample types, the nature, quality and appropriateness of the sample preparation technique. Quality control procedures adopted for all subsampling stages to maximise representivity of samples. 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. Whether sample sizes are appropriate to the grain size of the material being sampled. 	 Standard industry practices are expected to be in place. However, QAQC data is incomplete in the historic data. It is considered that appropriate analytical methods have been used by historic explorers. Historic core sampling is typically sawn half-core. Historic RC and AC samples are typically riffle split or spear-sampled. Information is not always complete. Historic sampling is typically dry.
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. 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. 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. 	 Historic assays include gold +/- arsenic and base metals. Assays are generally aqua regia or fire assay. Detection limits and techniques are appropriate for historic results.
Verification of sampling and assaying	 The verification of significant intersections by either independent or alternative company personnel. The use of twinned holes. Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols. Discuss any adjustment to assay data. 	 Historic intercepts have not been verified by the Company. The data from WMC, Leviathan and Stawell Gold Mines has been verified as part of entering data into geological databases. No adjustments to assay data have been made.
Location of data points	• Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys),	• Locations for historic collars have been captured in WGS84, AGD 66 and GDA94



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	 trenches, mine workings and other locations used in Mineral Resource estimation. Specification of the grid system used. Quality and adequacy of topographic control. 	 projected coordinates or in local grids. All data is reprojected as GDA94 MGA54. Historic drill collars have been determined with a number of techniques, ranging from survey pick-up through differential GPS. Topographic data is based on generational topographic maps and/or survey pick-up. Topographic control, for regional exploration, has not been validated. Future use of data will verify recorded elevations against high-resolution topographic data acquired by NSM.
Data spacing and distribution	 Data spacing for reporting of Exploration Results. 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. Whether sample compositing has been applied. 	 Historically, variable drill hole spacings are used to test targets and are determined from geochemical, geophysical and geological data. Historic regional and geochemical drilling (AC) is drilled on strike perpendicular fences, with approx 100m hole spacings and 100-400m line spacing Historic RC sampling is generally specifically targeted to follow up AC results Minor RC fences are drilled, on 30-200m spacing. Historic diamond drilling is located to follow up on specific prior results or targets. Historic data in the footprint of the tenement EL007324 were designed and executed as regional exploration. The historic drilling data has not been reviewed for its appropriateness to inform Mineral Resource Classification.
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 historic drill orientation is perpendicula to the regional geology and known mineralised trends previously identified from earlier drilling.
	• 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.	
Sample security	• The measures taken to ensure sample security.	• Sample security has not been reviewed for the historical data.
Audits or reviews	• The results of any audits or reviews of sampling	• There has not been internal or external audit or review of historic assays identified.



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Section 2 Reporting of Exploration Results

Criteria JC	ORC 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 security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area. 	 Current tenements are summarised in Appendix 1 -Table 1 of the announcement. Historic tenements are identified from the Victorian Government Geovic online spatia resource All granted tenements are current and in good standing. The project area occurs on freehold land. Minor Crown Land (>3%) and Restricted Crown Land (>1%) is identified. All areas are accessible if appropriate land access requests and agreements are in place. The Victorian Governments Geovic spatial online resource does not identify any material cultural, environmental or historic occurrences. The southern end of EL007324 encompasss parts of the Stawell Township. These areas are complicated by dense, urban freehold land parcels, and challenges gaining access may occur if attempted. EL007324 is held by Stawell Gold Mines (SGM). North Stawell Minerals has an earr in agreement with SGM. Initial Interest is 51%. Up to 90% earn-in can be achieved or meeting agreement conditions. EL007325 "Germania" was granted in November 2021. Tenement security is high, established in accordance with the Victorian Mineral Resources Act (MRSDA) and Regulations (MR(SD)(MI)R 2019). Victorian Exploration licences are granted for a 5 year initial term with an option to renew for another 5 years. Compulsory relinquishments are as follows; end of year 7 - 25%: end of year 4 - 35%: end of year 7 -
Exploration done by other parties	• Acknowledgment and appraisal of exploration by other parties.	 20%: end of year 9 - 10% The Tenure area has been explored in several campaigns since the 1970's, principally by companies related to Stawell Gold Mines and its predecessors (initially WMC Resources in the 1970's, Leviathan Resources and then subsequent owners). Rio Tinto Exploration, Planet Exploration,



have also held parts of the tenement historically.

- Public data available on exploration programmes has been downloaded from the Victorian State Governments' GeoVic website and sometimes describes exploration strategy, which is consistent with exploring for gold mineralisation under shallow cover into structural targets generated from available geochemistry and geophysics.
- Although NSM has reviewed and assessed the exploration data, it has only limited knowledge of the targeting and planning process and, as a consequence, has had to make assumptions based on the available historical data generated by these companies. However, the methodology appears robust.
- Work by Iluka was for Heavy Minerals exploration and is not material to gold exploration.
- Most programs include regional lines of RAB or AC drilling (577 of 650 holes)over identifiable magnetic highs. Follow up RC drilling (58 holes) under AC anomalies occur is sound practice. Eleven diamond holes (2419m) are completed – mainly focused on near Mine targets in the south.
- Work has identified large, low grade gold anomalism along major interpreted structures (magnetics) and represents a technical success.
- In the far south of tenement EL007324 and EL007325, exploration is typically testing for fault-repeats of the Stawell-type mineralisation, centered on magnetic anomalies. Basalt 'dome' analogies were identified with minor associated gold mineralisation.

The project areas are considered prospective

for the discovery of gold deposits of similar character to those in the nearby Stawell Gold Mine, particularly the 5Moz Magdala gold deposit located over the Magdala basalt dome. The Stawell Goldfield has produced approximately 5 million ounces of gold from hard rock and alluvial sources. More than 2.3 million ounces of gold have been produced since 1980 across more than 3 decades of continuous operation. Orogenic Gold occurrences are possible

away from the basalt domes.

event.

Wonga-style mineralisation is possible, interpreted as Intrusive-Related Gold, and may be either an upgrade on prior (orogenic mineralisation) or a fresh mineralisation

•

Geology

•

Deposit type, geological setting and style of mineralisation.



		 The geological setting is a tectonised accretionary prism on the forearc of the Delamerian-aged Stavely Arc active plate margin. Elements of the subducting tholeiitic basaltic ocean crust are incorporated into th accretionary pile and are important preparatory structures in the architecture of Stawell-type gold deposits. Mineralisation is a Benambran-aged hydrothermal (orogenic gold) overprinting event – penecontemporaneous with other major mineralisation events in western and central Victoria (e.g. Ballarat, Bendigo, Fosterville).
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 o dip and azimuth of the hole o down hole length and interception depth hole length. 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. 	 The report includes no new drilling results. Historic results are summarised as assays extracted from a historic, managed, validated database solution (Acquire), and associated procedures for QAQC. Historic easting and northings are captured as WGS84, AGD66 and GDA94 coordinates. All are transformed to GDA94MGA54S for the collar tables. Drill collar elevation is defined as height above sea level in metres (RL). Drill holes were drilled at an angle deemed appropriate to the local structure and stratigraphy and is tabulated. Regional AC and RAB holes are typically vertical. Hole length of each drill hole is the distance from the surface to the end of hole, as measured along the drill trace. Tabulated data is not included in this report or considered material, as the only representation of the data is a map at 1:350,000 scale.
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. 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. The assumptions used for any reporting of metal equivalent values should be clearly stated. 	 The report includes no new drilling results. Historic results The only representation of drill results (Figure 2) includes individual grades, therefore: No composites or weighted averages are applied. No top cuts have been applied. A nominal 0.5g/t Au or greater lower cut-of is reported as being potentially significant in the context of this report No metal equivalent reporting is used or applied.
Relationship between	• These relationships are particularly important in the reporting of Exploration Results.	• Historic results are presented at 1:350k scale, the assays are plotted (Figure 2) as



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mineralisation widths and intercept lengths	 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 	individual sample result. As such, the orientation and true thickness are not material to the Figure or its interpretation.
Diagrams	 known'). 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. 	 No new results are reported. Plan is at 1:350k scale. A supporting section at this scale is not regarded to be material or informative.
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 available drillholes and assays have been used to generate the only Figure using assay data. The figure is based on highest values rather than total intercepts to simplify the document and minimise the chances of introducing bias from non- representative composite intercepts.
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. 	• All scale-relevant exploration data is shown in diagrams and discussed in text.
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. 	 NSM plans to build on the surface geochemical data, further assess the historic drilling for open or high-priority data in the context of the Company's exploration model, and review targets in the context of new geophysical data and historic work Drill testing of interest areas will be assessed with air drilling for coverage, then RC/DD as appropriate to test depth continuation of near-surface anomalism.