

24 January 2020

## **NSW Exploration Update**

RC Drilling Campaign Completed at Melrose Gold Prospect Diamond Drilling of Blind Calf Copper Lodes to commence

### **Highlights**

#### **Lachlan Copper-Gold Project**

- Current reverse circulation (**RC**) drilling campaign targeting gold-in-soil anomalies at the Lachlan Project in NSW completed for 4 of the 5 targeted prospects.
- Diamond drilling to commence in the coming days at the Blind Calf Prospect targeting down plunge extensions of high-grade copper mineralisation.
- Results from RC drilling completed at the Brooklyn and Kaolin Shaft Prospects received.
   Results show some broad zones of low-level gold anomalism at the Brooklyn Prospect, and elevated base metal anomalism in the single hole completed at the Kaolin Shaft Prospect.
- Results received to date from RC drilling completed at the Melrose Gold Prospect have returned numerous zones of elevated gold anomalism, with the best result being:
  - 1m @ 2.03g/t Au from 65m (MGRC0004)
- NSW Department of Planning, Industry & Environment (DPIE) approval received for RC drill
  program of approximately 650m to test downhole electromagnetic conductors identified
  across the Blind Calf region. Drilling to commence following completion of Blind Calf
  extensional diamond drilling program.

#### **Regional Exploration**

 Applications for four separate auger drilling work programs submitted in December 2019 at the Lachlan Project have been approved. Auger drilling will target extensions of existing soil anomalies in areas of moderate transported cover, as well as new target areas.

#### **Lucknow Gold Project**

- Lucknow Gold Project land access agreement signed for diamond drilling to test the interpreted high-grade gold lode offset position.
- Application for an estimated 2,000m of drilling has been submitted to NSW DPIE for approval.
- Diamond drilling of the previously untested interpreted high-grade gold lode offset position to commence once approval is received and Blind Calf diamond drilling is completed.





#### **Lachlan Copper-Gold Project**

Talisman Mining Ltd (ASX: TLM, **Talisman**) is pleased to advise that a majority of the assay results have been received from an RC drilling program which commenced in the December quarter 2019. Drilling targeted gold-in soil anomalies across the southern region of the Lachlan Cu-Au Project (**Lachlan Project**) in NSW (*Appendix 1*).

Following an extension to the planned RC drilling at the Melrose Gold Prospect (*Figure 1*), drilling recommenced in early January 2020, following the Christmas/New Year break. Drilling at the Hardings, Brooklyn, Kaolin Shaft and Melrose Gold Prospects has now been completed with assays returned for all holes except the final two holes drilled at Melrose which have been dispatched to the laboratory for analysis. Planned RC drilling at the Blind Calf Au Prospect, as part of the current program, has been delayed due to a mechanical failure on the RC drill rig.

Whilst the RC drill rig is being repaired, drilling crews are in the process of transitioning to diamond drilling to focus on testing down plunge extensions to the high-grade Blind Calf-Dunbars Copper Lode system. Diamond drilling is expected to continue for the remainder of January and throughout February 2020.



Figure 1: Melrose Gold Prospect

#### RC Drill Testing of gold-in-soil anomalies

Assay results have now been received from all the holes drilled at the Harding's, Brooklyn and Kaolin Shaft Prospects, and the holes completed at the Melrose Gold Prospect in late 2019 (refer *Figure 2* and *Table 2*) to test previously identified gold-in-soil anomalies<sup>1</sup>.

 $<sup>^{\</sup>mathrm{1}}$  Refer to ASX announcement dated 22 July 2019 for full details.





Talisman is intending to undertake a selective program of downhole electromagnetic surveys (**DHEM**) following receipt of all assay results to further enhance the understanding of the potential prospectivity of these anomalies.

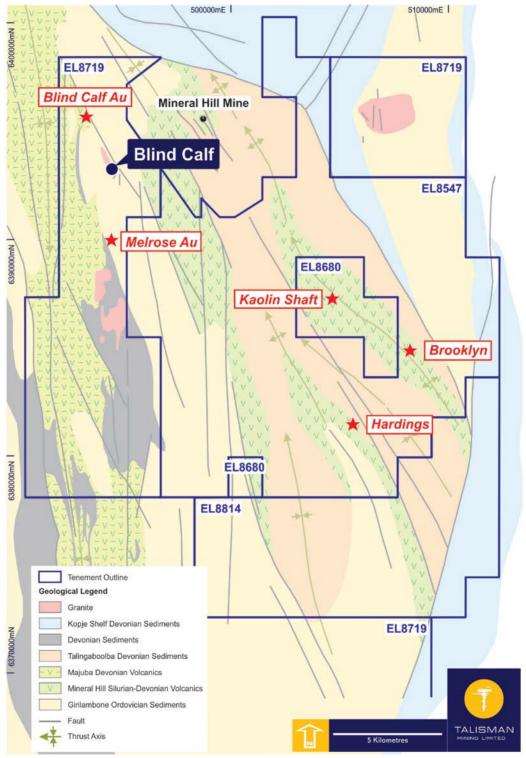


Figure 2: RC Drilling Campaign - Prospect location map<sup>2</sup>

 $<sup>^{2}</sup>$  Refer to Appendix 1 for Tenement details





#### Harding's Prospect (EL8547): Gold-in-soils

Gold assay results from geochemical sampling in mid-2019 identified an anomaly at the Harding's Prospect (*Figure 2* and *Figure 3*) extending over 1km, with a peak assay value of +500ppb Au (0.5g/t Au) in soils<sup>1</sup>. Surface verification identified a sequence of sub-cropping highly altered volcanic rocks, which are interpreted to represent a continuation of the Mineral Hill volcanic sequence.

A single drill traverse of four holes for 555m was completed across the peak of the gold-in-soil anomaly. Drilling encountered siliceous volcanic tuffaceous rocks with minor thin quartz veining and sulphides (pyrite) noted on drilling.

As previously announced<sup>3</sup>, results from assays have shown thin isolated zones of elevated gold mineralisation, with one intersection consistent with the surface geochemical anomalism. Gold assays returned were less than 0.5g/t and are not considered significant by Talisman (refer *Table 2*).

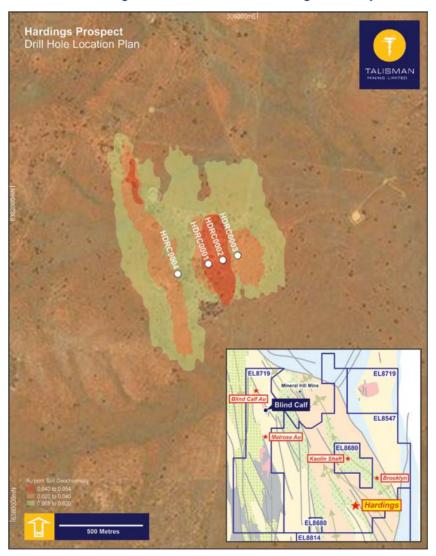


Figure 3: Harding's Prospect RC drill collar location plan<sup>4</sup>

<sup>&</sup>lt;sup>4</sup> Refer to Appendix 1 for Tenement details



<sup>&</sup>lt;sup>3</sup> Refer ASX Announcement dated 19 December 2019 for full details.



#### Brooklyn-Kaolin Shaft Prospects (EL8680 & EL8547): Gold-in-soils

Gold assay results from regolith sampling undertaken in mid-2019 along the southeast extension of the Mineral Hill Corridor highlighted multiple gold-in-soil anomalies<sup>1</sup>. The area contains numerous historic workings and is hosted by altered volcanic rocks. The Kaolin Shaft and Brooklyn Prospects were two high-priority drill targets along this trend (*Figure 2*, *Figure 4* and *Figure 5*).

Two drill traverses were undertaken at these two areas. Assay results have been received from the Brooklyn Prospect, with broad zones of low-level gold anomalism (>0.25 g/t Au), encountered across the western most drill hole BKRC0001, including two narrow zones at >0.5g/t Au (refer *Table 2*). BKRC0002 and BKRC0003 did not return any significant results (refer *Table 2*).

Assay results from the one hole completed at the Kaolin Shaft prospect returned elevated base metal (lead and zinc) anomalism (refer *Table 2*), with the best result being:

2m @ 2.95% Zn from 50m including 1m @ 4.77% Zn from 50m (KSRC0001).

Further work on these prospects will be subject to the results of potential future DHEM surveys.

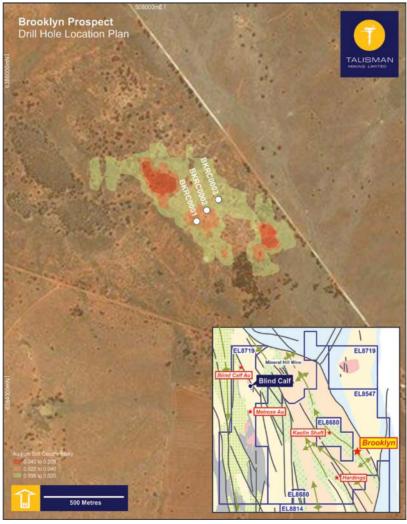


Figure 4: Brooklyn Prospect RC drill collar location plan<sup>5</sup>

 $<sup>^{\</sup>rm 5}$  Refer to Appendix 1 for Tenement details





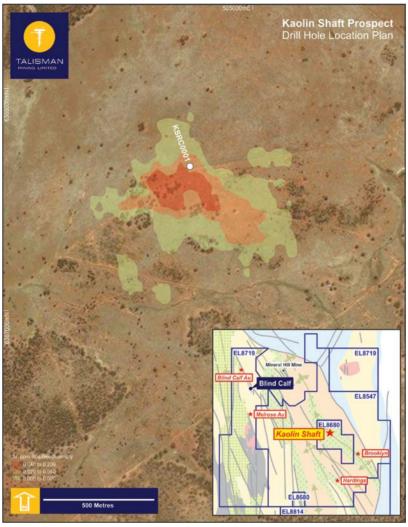


Figure 5: Kaolin Shaft Prospect RC drill collar location plan<sup>6</sup>

#### Melrose Prospect (EL8719): Gold-in-soils

Gold assay results from initial sampling at the Melrose Prospect identified an anomaly (*Figure 2* and *Figure 6*) extending over 1.5km and returned a peak assay value of +400ppb Au (0.4g/t Au) in soils<sup>1</sup>. Surface verification identified a strongly altered gossanous unit and quartz veining in a sequence of altered volcanic rocks. Further geochemical sampling undertaken in recent months has extended this geochemical anomaly from 1.5km to more than 2.8km<sup>7</sup>

A total of 8 RC drill holes for 1,188m have been completed testing approximately 500m of the +2.8km strike which was identified from the initial reconnaissance sampling (*Figure 6*).

Assay results from those holes completed in December 2019 have now been received. Drilling has intersected a rock package exhibiting broad zones of moderate to strong alteration comprising intercalated felsic volcanics, quartz porphyries and sediments, with varied intensity of quartz veining and sulphide mineralisation across all of the completed drill traverses.

 $<sup>^{7}</sup>$  Refer to ASX announcement dated 26 November 2019 for full details.



<sup>&</sup>lt;sup>6</sup> Refer to Appendix 1 for Tenement details



Assay results have confirmed geological observations, returning broad low-level gold anomalism, with moderate grade mineralisation associated with zones of more intense veining. The best result returned was from hole MGRC0004 which returned 1m @ 2.03 g/t Au from 65m (refer *Table 2*).

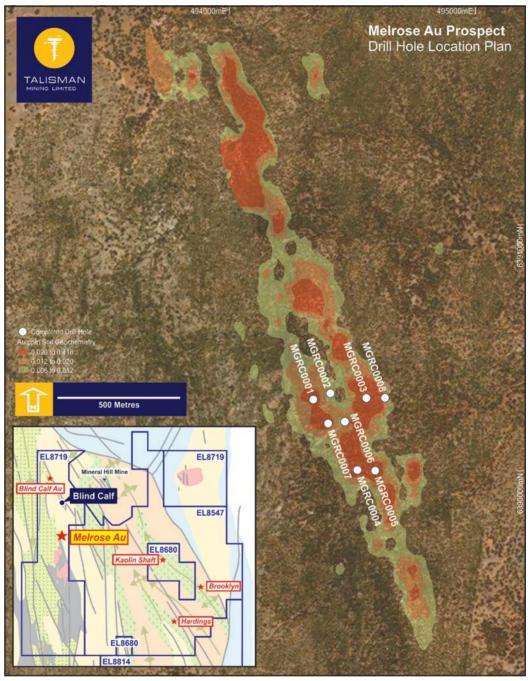


Figure 6: Melrose Gold prospect RC drill collar location plan<sup>8</sup>

Further work on the Melrose Prospect is anticipated to be undertaken once all assay results have been received and potential future DHEM surveys have been completed.

 $<sup>^{8}</sup>$  Refer to Appendix 1 for Tenement details





#### Blind Calf Au (EL8719): Gold-in-soils

A soil sampling program approximately 1km along strike to the north-west of Blind Calf high-grade copper discovery identified a large strong gold-in-soil anomaly that extends for more than 1km<sup>1</sup>.

Drilling of three drill traverses to test the two separate anomalies in this area was planned in the current RC drilling program, however a mechanical failure of the RC drill rig has delayed this drilling. Once the RC drill rig is repaired, this planned drilling will be undertaken in conjunction with the RC drill testing of DHEM anomalies identified from previous drilling at the main Blind Calf Prospect<sup>9</sup>. This RC drilling is scheduled to commence following the completion of the current Blind Calf diamond drilling program.

#### Blind Calf-Dunbars Copper Lode System - Diamond Drilling

RC drilling in July 2019 increased the footprint of the known and interpreted high-grade core in the Blind Calf-Dunbars copper lode system including:

• 10m @ 4.32% Cu from 176m including 4m @ 7.68% Cu from 180m (BCRC0029)9

Two deeper RC holes (BCRC0019 and BCRC0022) focused on the down-plunge extension to the Blind Calf-Dunbars lode were affected by significant lift and were ineffective at testing the target area.

Approval from the NSW DPIE has now been received for three diamond drill holes (to be drilled from existing drill pads) for approximately 1,000m to test the down-plunge extension of the high-grade Blind Calf-Dunbars copper lode system mineralisation (*Figure 7*). Drilling is expected to commence in the coming days and is anticipated to continue for the next one to two months.

#### **Regional Exploration**

Approvals from the NSW DPIE has also been received for four shallow auger drilling programs across multiple areas to infill and extend areas of known gold and base metal anomalism as well as number of new target areas within the Lachlan Project. Auger drilling is being utilised in areas where transported cover sequences have been identified, such areas not being amenable to traditional soil sampling techniques.

<sup>&</sup>lt;sup>9</sup> Refer ASX announcement dated 9 September 2019 for full details.





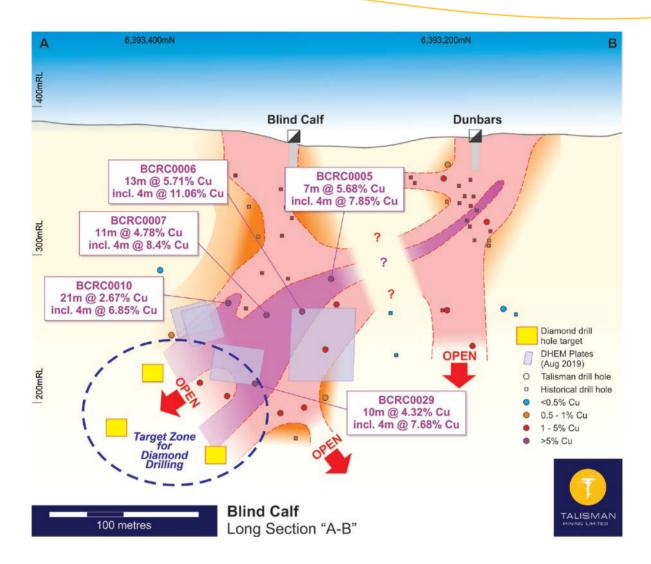


Figure 7: Blind Calf-Dunbars long section showing proposed diamond drill hole targets, current DHEM anomalies and previously reported Talisman and historic drill holes.

#### **Lucknow Gold Project**

Talisman has successfully executed Land Access Agreements (**LAA**) with key local land holders, a significant process step in preparing for its first diamond drill testing of the interpreted high-grade Lucknow Gold Mine extensions. With the LAA now in place, an application has been submitted to the NSW DPIE for an estimated 2,000m of drilling, targeting these high-grade zones. Pending approval of this application, drilling is currently anticipated to commence immediately following the completion of the current diamond drilling campaign at the Blind Calf Prospect.

As previously announced<sup>10</sup>, Talisman entered into a Farm-in Agreement (**FIA**) with privately-owned Lucknow Gold Ltd (**Lucknow Gold**) in relation to the Lucknow Gold Project (EL6455) in NSW (**Lucknow Project**) (*Appendix 2*).

 $<sup>^{</sup>m 10}$  Refer ASX announcement dated 26 August 2019 for full details.





Under the terms of the FIA Talisman's wholly owned subsidiary, Talisman B Pty Ltd the right to earn up to a 70% interest in the Lucknow Project, by spending a minimum of \$1.5M on exploration over four years and issuing \$250k worth of Talisman shares (to a maximum of 3,000,000 shares under certain conditions) to Lucknow Gold.

Gold mineralisation at Lucknow is intimately associated with the major NNW trending Lucknow Fault (*Figure 8* and *Figure 9*) which dips 60 to 70° to the northeast. The fault separates hanging wall serpentinite from the footwall volcanic rocks. The volcanic rocks of the Oakdale Formation on the footwall are competent and subject to brittle deformation, whereas the hanging wall serpentinite is far less competent, and more subject to ductile deformation.

It is interpreted that the jog in the Lucknow Fault caused dilation, and the formation of east-west trending, vertical fractures in the footwall. These fractures contain the quartz plus calcite high grade gold bearing veins at Lucknow. The veins are zoned such that away from the Lucknow Fault contact they consist of barren quartz, moving to calcite plus quartz, then calcite only. Historic gold mineralisation is localised at the intersection of steep dipping east-west quartz plus pyrite+/-calcite veins, and the ultramafic-dacite contact along the Lucknow Fault. The bonanza grade gold mineralisation occurs as steeply plunging shoots.

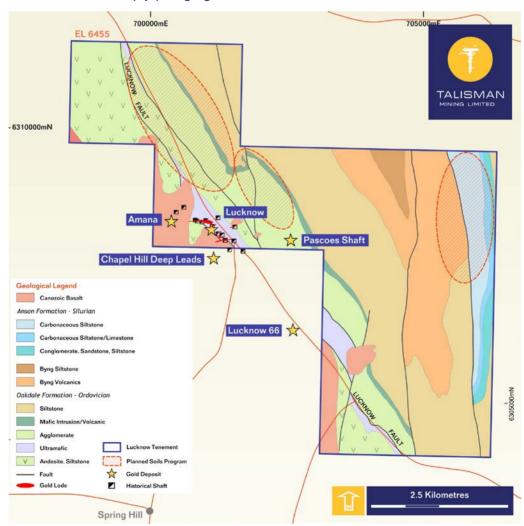


Figure 8: Lucknow Project simplified geology.





Talisman will target the interpreted fault offset extensions of the high-grade Lucknow Project gold mineralisation (*Figure 10*), with an initial two diamond drill holes. There is no previous drilling targeting this interpreted fault offset position.

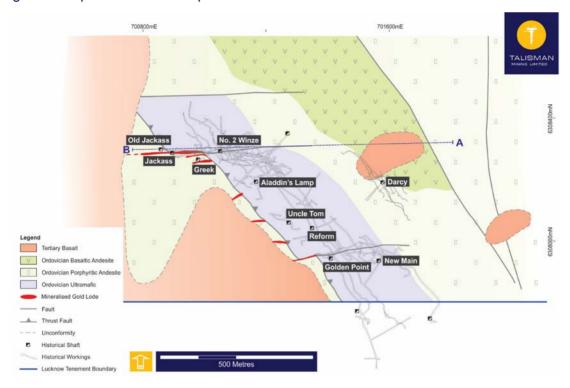


Figure 9: Lucknow Project mine shaft locations and simplified geology.

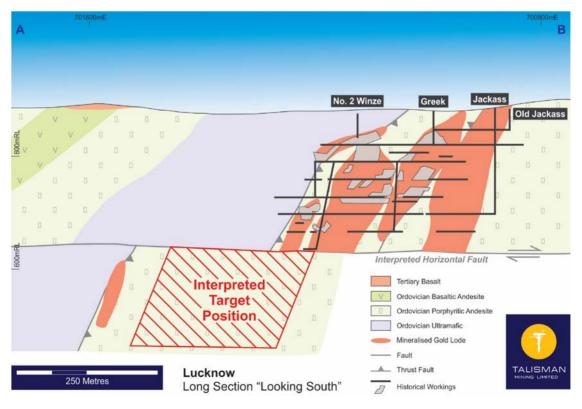


Figure 10: Lucknow Project interpreted long section, showing the interpreted faulted offset mineralisation target position.





#### **Ends**

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#### **About Talisman Mining**

Talisman Mining Limited (ASX:TLM) is an Australian mineral development and exploration company. The Company's aim is to maximise shareholder value through exploration, discovery and development of complementary opportunities in base and precious metals.

Talisman has also secured tenements in the Cobar/Mineral Hill region in Central NSW through the grant of its own Exploration Licenses and through separate farm-in agreements. The Cobar/Mineral Hill region is a richly mineralised district that hosts several base and precious metal mines including the CSA, Tritton, and Hera/ Nymagee mines. This region contains highly prospective geology that has produced many long-life, high-grade mineral discoveries. Talisman has identified a number of areas within its Lachlan Cu-Au Project tenements that show evidence of base and precious metals endowment which have had very little modern systematic exploration completed to date. Talisman believes there is significant potential for the discovery of substantial base metals and gold mineralisation within this land package.

Talisman has also entered into a farm-in with privately-owned Lucknow Gold Limited in relation to the Lucknow Gold Project (EL6455) in New South Wales. The Lucknow Goldfield was discovered in 1851 and was one of the earliest goldfields to be mined commercially in Australia. Historic production records at the Project are incomplete, however in excess of 400,000 ounces of gold has reportedly been produced at grades of 100 to 200 g/t gold 11. Very little modern exploration has been completed outside of the existing mine workings and Talisman intends to undertake a program of geochemical surface sampling and mapping at the Project ahead of a drilling program to test for potential down plunge extensions of the high-grade gold ore shoots and repeat structures throughout the Project area.

#### **Competent Person's Statement**

Information in this announcement that relates to Exploration Results and Exploration Targets is based on, and fairly represents information and supporting documentation complied by Mr Anthony Greenaway, who is a member of the Australasian Institute of Mining and Metallurgy. Mr Greenaway is a full-time employee of Talisman Mining Ltd and has sufficient experience which is relevant to the style of mineralisation and types of deposits under consideration and to the activities undertaken to qualify as a Competent Person as defined in the 2012 Edition of the "Australian Code for Reporting of Mineral Resources and Ore Reserves". Mr Greenaway has reviewed the contents of this announcement and consents to the inclusion in this announcement of all technical statements based on his information in the form and context in which they appear.

#### **Forward-Looking Statements**

This ASX release may include forward-looking statements. These forward-looking statements are not historical facts but rather are based on Talisman Mining Ltd.'s current expectations, estimates and assumptions about the industry in which Talisman Mining Ltd operates, and beliefs and assumptions regarding Talisman Mining Ltd.'s future performance. Words such as "anticipates", "expects", "intends", "plans", "believes", "seeks", "estimates", "potential" and similar expressions are intended to identify forward-looking statements. Forward-looking statements are only predictions and are not guaranteed, and they are subject to known and unknown risks, uncertainties and assumptions, some of which are outside the control of Talisman Mining Ltd. Past performance is not necessarily a guide to future performance and no representation or warranty is made as to the likelihood of achievement or reasonableness of any forward-looking statements or other forecast. Actual values, results or events may be materially different to those expressed or implied in this presentation. Given these uncertainties, recipients are cautioned not to place reliance on forward looking statements. Any forward looking statements in this announcement speak only at the date of issue of this announcement. Subject to any continuing obligations under applicable law and the ASX Listing Rules, Talisman Mining Ltd does not undertake any obligation to update or revise any information or any of the forward looking statements in this announcement or any changes in events, conditions or circumstances on which any such forward looking statement is based.

<sup>&</sup>lt;sup>11</sup> NSW DIGS report, First Annual Exploration Report EL5770, 2001 - R00030162





#### Table 1: Drill-hole information summary

Details and co-ordinates of Lachlan Project RC drill-hole collars completed during the period November 2019 to January 2020.

Hole ID	Grid ID	Dip	Azimuth	East (m)	North (m)	RL (m)	Hole Type	Max Depth	Prospect	Comment
HDRC0001	MGA94_Z55	-60°	254 <sup>0</sup>	505,701	6,381,538	268	RC	136	Hardings	Complete
HDRC0002	MGA94_Z55	<b>-60</b> <sup>0</sup>	250°	505,783	6,381,564	274	RC	154	Hardings	Complete
HDRC0003	MGA94_Z55	<b>-60</b> <sup>0</sup>	250°	505,864	6,381,590	268	RC	130	Hardings	Complete
HDRC0004	MGA94_Z55	<b>-60</b> <sup>0</sup>	250 <sup>0</sup>	505,525	6,381,483	286	RC	135	Hardings	Complete
BKRC0001	MGA94_Z55	<b>-60</b> <sup>0</sup>	225 <sup>0</sup>	508,192	6,384,961	266	RC	138	Brooklyn	Complete
BKRC0002	MGA94_Z55	<b>-60</b> <sup>0</sup>	2250	508,257	6,385,031	262	RC	165	Brooklyn	Complete
BKRC0003	MGA94_Z55	-60°	225 <sup>0</sup>	508,331	6,385,097	262	RC	123	Brooklyn	Complete
KSRC0001	MGA94_Z55	<b>-60</b> <sup>0</sup>	215 <sup>0</sup>	504,717	6,387,651	280	RC	159	Kaolin Shaft	Complete
MGRC0001	MGA94_Z55	<b>-60</b> <sup>0</sup>	900	494,339	6,390,291	397	RC	157	Melrose Au	Complete
MGRC0002	MGA94_Z55	<b>-60</b> <sup>0</sup>	900	494,408	6,390,315	396	RC	195	Melrose Au	Complete
MGRC0003	MGA94_Z55	<b>-60</b> <sup>0</sup>	2700	494,556	6,390,297	382	RC	153	Melrose Au	Complete
MGRC0004	MGA94_Z55	<b>-60</b> <sup>0</sup>	2700	494,867	6,392,922	383	RC	159	Melrose Au	Complete
MGRC0005	MGA94_Z55	<b>-60</b> <sup>0</sup>	900	494,592	6,390,003	374	RC	159	Melrose Au	Complete
MGRC0006	MGA94_Z55	<b>-60</b> <sup>0</sup>	2700	494,468	6,390,200	368	RC	105	Melrose Au	Complete
MGRC0007	MGA94_Z55	-60°	2700	494,400	6,390,194	380	RC	160	Melrose Au	Complete
MGCR0008	MGA94_Z55	-60°	2700	494,630	6,390,297	350	RC	100	Melrose Au	Complete



#### Table 2: RC drill-hole assay intersections

Details of Lachlan Project RC drilling intersections received to date by Talisman are provided below.

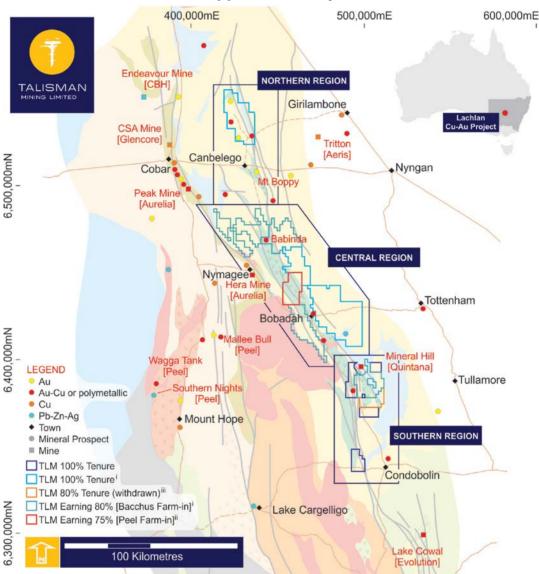
Calculation of intersections for inclusion into this table are based a nominal 0.5% Cu, 0.5% Pb, 0.5% Zn and/ or 0.5g/t Au cut-off, no more than 3m of internal dilution and a minimum composite grade of 0.5% Cu and/ or 0.5g/t Au

The listed intersections relating to the Lachlan Project, are reported as down hole intersections. True widths of the reported mineralisation are not known at this time.

Hole ID	Depth From (m)	Depth To (m)	Interval (down-Hole) (m)	Au (g/t)	Cu (%)	Pb (%)	Zn (%)	Prospect
HDRC0001	No significant results							Hardings
HDRC0002	No significo	ant results						Hardings
HDRC0003	No significant results							Hardings
HDRC0004	No significo	ant results						Hardings
BKRC0001	29	30	1	0.6	0.01	0.35	0.02	Brooklyn
BKRC0001	71	72	1	0.62	0.01	0.07	0.02	Brooklyn
BKRC0002	No significo	ant results						Brooklyn
BKRC0003	No significant results							Brooklyn
KSRC0001	34	35	1	0.01	0.02	0.65	0.21	Kaolin Shaft
KSRC0001	50	52	2	0.01	0.01	0.01	2.95	Kaolin Shaft
inc.	50	51	1	0.01	0.01	0.01	4.77	Kaolin Shaft
MGRC0001	No significant results							Melrose Au
MGRC0002	16 17 1			0.50	0.01	0.01	0.01	Melrose Au
MGRC0003	No significant results							Melrose Au
MGRC0004	17	18	1	0.93	0.03	0.30	0.04	Melrose Au
MGRC0004	65	66	1	2.03	0.02	0.28	0.78	Melrose Au
MGRC0004	95	96	1	0.51	0.01	0.01	0.01	Melrose Au
MGRC0004	100	101	1	0.60	0.01	0.01	0.01	Melrose Au
MGRC0005	No significant results							Melrose Au
MGRC0006	No significant results							Melrose Au
MGRC0007	Results Pending							Melrose Au
MGRC0008	Results Pending							Melrose Au



# Appendix 1 Lachlan Copper- Gold Project tenure



- . As previously announced to the ASX<sup>12</sup>, Haverford Holdings Ltd (Haverford), a 100% owned subsidiary of Talisman, has entered into a Farm-In Agreement (Farm-in) with Bacchus Resources Pty Ltd (Bacchus) over certain Lachlan Cu-Au Project tenements.

  In accordance with the terms of the Farm-in:
  - Haverford can earn up to an 80% interest in the Bacchus Tenements (EL8547, EL8571, EL8638, EL8657, EL8658 and EL8680) by sole funding \$2.3M of onground exploration expenditure over four years; and
  - Should Haverford earn an interest in the Bacchus Tenements, Bacchus is entitled to receive a 20% interest in the Haverford Tenements (EL8615, EL8659 and EL8677). Should Haverford not earn an interest in the Bacchus Tenements, Bacchus may elect to take a 20% interest in the Haverford Tenements.
     Should Haverford earn into the Bacchus Tenements, a formal joint venture will be entered into which provides that Bacchus will be free carried for 10% of its
  - Should Haverford earn into the Bacchus Tenements, a formal joint venture will be entered into which provides that Bacchus will be free carried for 10% of its
    joint venture interest until a decision to mine. Post a decision to mine, Bacchus can then elect whether to contribute or not, if Bacchus elects not to contribute,
    Haverford shall acquire Bacchus' interest in the joint venture for 95% of fair value as agreed by the joint venture participants
- iii. As previously announced to the ASX<sup>13</sup>, Haverford has entered into a Farm-In Agreement (Farm-in) with Peel Mining Limited (ASX:PEX) over PEX's Mt Walton (EL8414) and Michelago (EL8451) Projects (collectively the Peel Tenements). In accordance with the terms of the Farm-in, Haverford can earn up to a 75% interest in the Peel Tenements by sole funding \$0.7M of on-ground exploration expenditure over five years.
- iii. Talisman and its subsidiary Haverford entered into a joint venture with Bacchus in relation to EL8814. Talisman and Haverford have given notice to withdraw from this joint venture and are progressing with the transfer of their joint venture interest to Bacchus. Haverford will continue to be the registered holder of EL8814 until this process has been completed.

 $<sup>^{13}</sup>$  Refer Talisman ASX announcement "AGM Presentation" 23 November 2017.



<sup>12</sup> Refer Talisman ASX announcement "Further NSW Gold and Base Metals Tenure Secured" 09 January 2018.



# Appendix 2 Lucknow Gold Project tenure







## Appendix 3 JORC Tables Section 1 & 2

#### **Section 1 Sampling Techniques and Data**

(Criteria in this section apply to all succeeding sections)

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul> <li>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.</li> <li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li> <li>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 3kg 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.</li> </ul>	<ul> <li>Drilling cited in this report was completed by Haverford Holdings, a wholly owned subsidiary of Talisman Mining Limited.</li> <li>Sampling techniques employed at the Lachlan Copper-Gold Project include         <ul> <li>auger bottom of hole sampling.</li> <li>Reverse Circulation (RC) drilling samples collected by a cone splitter for single metre samples or sampling scoop for composite samples</li> </ul> </li> <li>Sampling is controlled by Talisman protocols and QAQC procedures as per industry standard</li> <li>Auger samples were sieved on-site to minus 175µ and analysed for base metals on-site via Portable XRF ("PXRF"). Sieved samples were dispatched for analysis by aqua regia digest with an ICP/AES or AAS finish at ALS laboratories.</li> <li>RC samples were dried, crushed (where required), split and pulverised (total prep) to produce a sub sample for base metal analysis by four acid digest with an ICP/AES and a 50g sub sample for gold analysis by fire assay</li> </ul>
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, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).	<ul> <li>Geochemical auger drill holes at the Lachlan Copper-Gold Project were completed using auger drilling techniques.</li> <li>RC drilling is completed with a face sampling hammer of nominal 140mm size</li> </ul>
Drill sample recovery	<ul> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> <li>Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> <li>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.</li> </ul>	<ul> <li>Auger sample recovery is generally good with no wet sampling in the project area</li> <li>RC drill sample recovery is generally high with sample recoveries and quality recorded in the database.</li> <li>No known relationship exists between recovery and grade and no known bias exists.</li> </ul>
Logging	<ul> <li>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.</li> <li>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography.</li> <li>The total length and percentage of the relevant intersections logged.</li> </ul>	<ul> <li>Qualitative logging of the bottom-of-hole auger sampling is completed according to the nature, weathering and interpreted protolith of the sample.</li> <li>RC logging records lithology, mineralogy, mineralisation, alteration, structure, weathering, colour and other primary features of the rock samples and is considered to be representative across the intercepted geological units.</li> <li>RC logging is both qualitative and quantitative depending on the field being logged.</li> </ul>



Criteria	JORC Code explanation	Commentary		
		All RC drill-holes are logged in full to end of hole.		
Sub-sampling techniques and sample preparation	<ul> <li>If core, whether cut or sawn and whether quarter, half or all core taken.</li> <li>If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry.</li> <li>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> <li>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</li> <li>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.</li> <li>Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>	<ul> <li>A single bottom of hole auger samples is collected from each location and sieved to minus 175µm on site.</li> <li>Sieved samples are analysed for base metals on-site via PXRF. Sieved samples were dispatched for wet chemical analysis by aqua regia digest with an ICP/AES or AAS finish.</li> <li>RC samples were dried, crushed (where required), split and pulverised (total prep) to produce a sub sample for base metal analysis by four acid digest with an ICP/AES and a 50g sub sample for gold analysis by fire assay</li> <li>QAQC protocols for all auger sampling involved the use of Certified Reference Material (CRM) as assay standards.</li> <li>All QAQC controls and measures were routinely reviewed.</li> <li>Sample size is considered appropriate for low-level geochemical sample for base-metal and gold mineralisation</li> </ul>		
Quality of assay data and laboratory tests	<ul> <li>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</li> <li>For geophysical tools, spectrometres, handheld XRF instruments, etc, the parametres used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.</li> <li>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.</li> </ul>	<ul> <li>QAQC protocols for all auger sampling involved the use of CRM as assay standards.</li> <li>All assays are required to conform to the procedural QAQC guidelines as well as routine laboratory QAQC guidelines.</li> <li>All QAQC controls and measures were routinely reviewed.</li> <li>Laboratory checks (repeats) occurred at a frequency of 1 in 25.</li> <li>PXRF instrument Innovex Delta Gold is used for qualitative and semi-quantitative field analysis of basemetals in regolith geochemical auger samples.</li> <li>The PXRF instrument is routinely calibrated using a calibration standard. CRM samples are included at a frequency of 1:50 and field duplicate samples are included at a frequency of 1:50.</li> <li>No PXRF results are reported</li> </ul>		
Verification of sampling and assaying	<ul> <li>The verification of significant intersections by either independent or alternative company personnel.</li> <li>The use of twinned holes.</li> <li>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</li> <li>Discuss any adjustment to assay data.</li> </ul>	<ul> <li>Significant intercepts have been verified by alternate company personnel</li> <li>Logging and sampling data is captured and imported using Ocris software.</li> <li>Assay data is downloaded directly from the PXRF machine, or uploaded directly from the CSV filed provided by the laboratory.</li> <li>Primary laboratory assay data is always kept and is not replaced by any adjusted or interpreted data.</li> </ul>		





Criteria	JORC Code explanation	Commentary
Location of data points	<ul> <li>Accuracy and quality of surveys used to locate drill-holes (collar and down- hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.</li> <li>Specification of the grid system used.</li> <li>Quality and adequacy of topographic control.</li> </ul>	<ul> <li>Sample locations are collected using a handheld GPS. Saved data is downloaded directly into GIS mapping software</li> <li>Talisman RC drill collar locations are pegged using a hand-held GPS. With final collar location surveys with sub-meter DGPS</li> <li>The coordinate system used is the Geocentric Datum of Australia (GDA) 1994. Coordinates are in the Map Grid of Australia zone 55 (MGA).</li> </ul>
Data spacing and distribution	<ul> <li>Data spacing for reporting of Exploration Results.</li> <li>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.</li> <li>Whether sample compositing has been applied.</li> </ul>	<ul> <li>Auger sample spacing at the Lachlan Copper-Gold Project was nominally 300m x 50m.</li> <li>Drill spacing at the Lachlan Copper-Gold Project varies depending on requirements</li> <li>No mineral resource is being reported for the Lachlan Copper-Gold Project.</li> <li>No sample compositing has been applied.</li> </ul>
Orientation of data in relation to geological structure	<ul> <li>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</li> <li>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.</li> </ul>	Samples were taken according to observations at the time in the field.
Sample security	The measures taken to ensure sample security.	<ul> <li>Samples are sieved on site and placed in bags in the field.</li> <li>Samples are transported to a field base camp and analyses for base metals via PXRF</li> <li>RC samples were stored on site at the Lachlan project prior to submission under the supervision of the Senior Project Geologist. Samples were transported to ALS Chemex Laboratories Orange by an accredited courier service.</li> </ul>
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	No external audits or reviews of the sampling techniques and data have been completed.



Section 2 Reporting of Exploration Results (Criteria listed in the preceding section also apply to this section)

Critoria	IOPC Code explanation	Commontary
Criteria Mineral	JORC Code explanation	Commentary
Mineral tenement and land tenure status	<ul> <li>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.</li> <li>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.</li> </ul>	<ul> <li>The Lachlan Copper Gold Project currently comprises 12 granted exploration licences:</li> <li>EL8547, EL8571, EL8638, EL8657, EL8658 and EL8680 held by Bacchus Resources P/L ("Bacchus") with Haverford Holdings Pty Ltd ("Haverford"), a wholly owned subsidiary of Talisman Mining Limited ("Talisman"), earning up to a 80% interest (Refer Talisman ASX announcement "Further NSW Gold and Base Metals Tenure Secured" 09 January 2018);</li> <li>EL8615, EL8659 and EL8677 held by Haverford with Bacchus entitled to receive a 20% interest (Refer Talisman ASX announcement "Further NSW Gold and Base Metals Tenure Secured" 09 January 2018);</li> <li>EL8414 held by Peel Mining Limited with Haverford earning up to a 75% interest (Refer Talisman ASX announcement "AGM Presentation" 23 November 2017); and</li> <li>EL8719 and EL 8718 held 100% by Haverford.</li> <li>There are no known Native Title Claims over the Lachlan Copper-Gold Project.</li> <li>All tenements are in good standing and there are no existing known impediments to exploration or mining.</li> <li>The Lucknow Gold Project currently comprises one granted exploration licence:</li> <li>EL6455 held by Lucknow Gold Ltd ("Lucknow") with Talisman B Pty Ltd ("Talisman B"), a wholly owned subsidiary of Talisman, earning a 70% interest in the Lucknow Project, by spending a minimum of \$1.5M on exploration over four years and issuing \$250k worth of Talisman shares (to a maximum of 3,000,000 shares under certain conditions) to Lucknow.</li> <li>There are no known Native Title Claims over the Lucknow Gold Project.</li> <li>The Lucknow Gold Project tenement is in good standing</li> </ul>
		and there are no existing known impediments to exploration or mining.
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	The Lachlan Copper-Gold Project and the Lucknow Gold Project have been subject to exploration by numerous previous explorers.
		<ul> <li>Exploration work on has included diamond, RC and Air Core drilling, ground and down-hole EM surveys, soil sampling, geological interpretation and other geophysics (magnetics, gravity).</li> </ul>
Geology	<ul> <li>Deposit type, geological setting and style of mineralisation.</li> </ul>	The Lachlan Copper-Gold Project lies within the Central Lachlan Fold belt in NSW.
		The Lachlan Copper-Gold Project is considered prospective for epithermal style base-metal and precious metal mineralisation, orogenic mineralisation, and Cobar style base-metal mineralisation.



Criteria	JORC Code explanation	Commentary
		<ul> <li>The Lucknow Gold project lies within the Macquarie Arc in NSW</li> <li>The Lucknow Gold Project is considered prospective for epithermal and orogenic style precious metal mineralisation</li> </ul>
Drill-hole Information	<ul> <li>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:         <ul> <li>easting and northing of the drill-hole collar</li> <li>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill-hole collar</li> <li>dip and azimuth of the hole</li> <li>down hole length and interception depth</li> <li>hole length.</li> </ul> </li> <li>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.</li> </ul>	<ul> <li>Relevant drill hole information is included in Table 1: and Table 2:</li> <li>Historical drilling intercepts have been appropriately referenced to source information.</li> </ul>
Data aggregation methods	<ul> <li>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.</li> <li>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.</li> <li>The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> </ul>	<ul> <li>Significant intersections reported from the Lachlan Copper-Gold Project and Lucknow Gold Project are based on greater than 0.5% Cu and/or 0.5g/t Au and may include up to 3m of internal dilution, with a minimum composite grade of 0.5% Cu and or 0.5g/t Au.</li> <li>Cu grades used for calculating significant intersections are uncut.</li> <li>All results reported in this document have been derived from 1m split samples.</li> <li>Length weighted intercepts are reported for mineralised intersections.</li> </ul>
Relationship between mineralisation widths and intercept lengths	<ul> <li>These relationships are particularly important in the reporting of Exploration Results.</li> <li>If the geometry of the mineralisation with respect to the drill-hole angle is known, its nature should be reported.</li> <li>If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g. 'down hole length, true width not known').</li> </ul>	Drill-holes relating to the Lachlan Copper-Gold Project and the Lucknow Gold Project are reported as down hole intersections. True widths of reported mineralisation are not known at this time.
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.	Appropriate maps with scale are included within the body of the accompanying document.
Balanced reporting	Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high	Contouring of geochemical PXRF data provides an appropriate representation of the results





Criteria	JORC Code explanation	Commentary
	grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.	The accompanying document is considered to represent a balanced report.
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 meaningful and material information is reported.
Further work	<ul> <li>The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).</li> <li>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</li> </ul>	Planned future work at the Lachlan Copper-Gold Project and the Lucknow Gold Project includes auger sampling, RC/ diamond drilling and geophysical surveys.