



ASX ANNOUNCEMENT

20<sup>TH</sup> FEBRUARY 2024

# High-Grade Rock Chip Results from West Bryah Project Validate Historical Gold Exploration

## HIGHLIGHTS

- Results for 19 Rock Chips at West Bryah Project support Historical Exploration Results at Mount Padbury Prospect and potential of Dimble Prospects.
- Best Rock Chip results include:
  - 30.2 g/t Au and 2.1% Cu in sample SMRK055 from Dimble East.
  - 12.7 g/t Au in sample SMRK062 from Mount Padbury.
  - 11.1 g/t Au in sample SMRK061 and 6.83 g/t Au in sample SMRK059 from West Dimble 4.
  - 7.97 g/t Au in sample SMRK070 from Dimble West.
- Mount Padbury reconnaissance checks historical drilling by Lachlan Resources in 1997<sup>1</sup> that returned multiple significant gold intercepts in RAB and RC drilling, including down hole intercepts of:
  - 12m at 5.66 g/t Au from 0m in RAB hole MPRB015, including 1m at 59.1 g/t Au from 7m;
  - 19m at 2.68 g/t Au from 0m in RAB hole MPRB001, including 1m at 6.14 g/t Au from 4m and including 2m at 17.0 g/t Au from 8m;
  - 9m at 1.35 g/t Au from 22m in RAB hole MPRB014;
  - 4m at 2.69 g/t Au from 35m in RC hole MPRC0002, including 1m at 7.43 g/t Au from 35m;
  - 2m at 2.42 g/t Au from 11m and 1m at 1.16 g/t Au from 20m in RC hole MPRC0004;
  - 3m at 1.66 g/t Au from 5m in RC hole MPRC0007; and
  - 1m at 8.04 g/t Au from 27m in hole MPRC0008
- Historical drilling and sampling and recent surface sampling highlight potential for West Bryah Project to host gold deposits similar to the Livingstone Project deposits 30km to the west owned by Metal Bank Limited.

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Star Minerals Limited (ASX: SMS, “the Company” or “SMS”) is pleased to advise results are now available for a rock chip campaign completed in late 2023 at the West Bryah Project. Samples were collected during a reconnaissance trip by experienced SMS geologists. The aim was to evaluate the Project for prospectivity for

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<sup>1</sup> See GSWA Wamex Item A54171 – Svenson, M; “Project 486, Mount Padbury Project, Annual Report, Period 02/02/1997 – 01/02/1998 – Technical Report No. 697”; Lachlan Resources NL.

gold deposits similar to that defined by Metal Bank (ASX:MBK) at the Livingstone Project, 30km west of the Dimble and Mount Padbury Prospects. Potential for pegmatite hosted lithium mineralisation within the Yarlarweelor Gneiss was reviewed as part of the trip, with evaluation of geology exposure.

Star Minerals’ Chair, Ian Stuart commented:

“Reconnaissance work at the West Bryah continues to deliver significant high-grade gold in surface samples, validating the historical dataset compiled by the Company.

Star Minerals are focussed on building understanding of the controls on gold mineralisation at the Project to get ready for drill testing of the multiple targets at the Dimble and Mount Padbury areas.

We are confident that well designed programs of modern exploration will unveil further targets at the Project, with all commodities under consideration for targeting to compliment the numerous gold Prospects already present”.

The location of the West Bryah Project is shown in the geology plan for the Bryah Basin region, Figure 1 below. The plan shows the extent of Narracoota Formation and Wilthorpe Formation present in the West Bryah Project, both geology units that host significant gold and/or VMS deposits further north and east in the Bryah Basin.

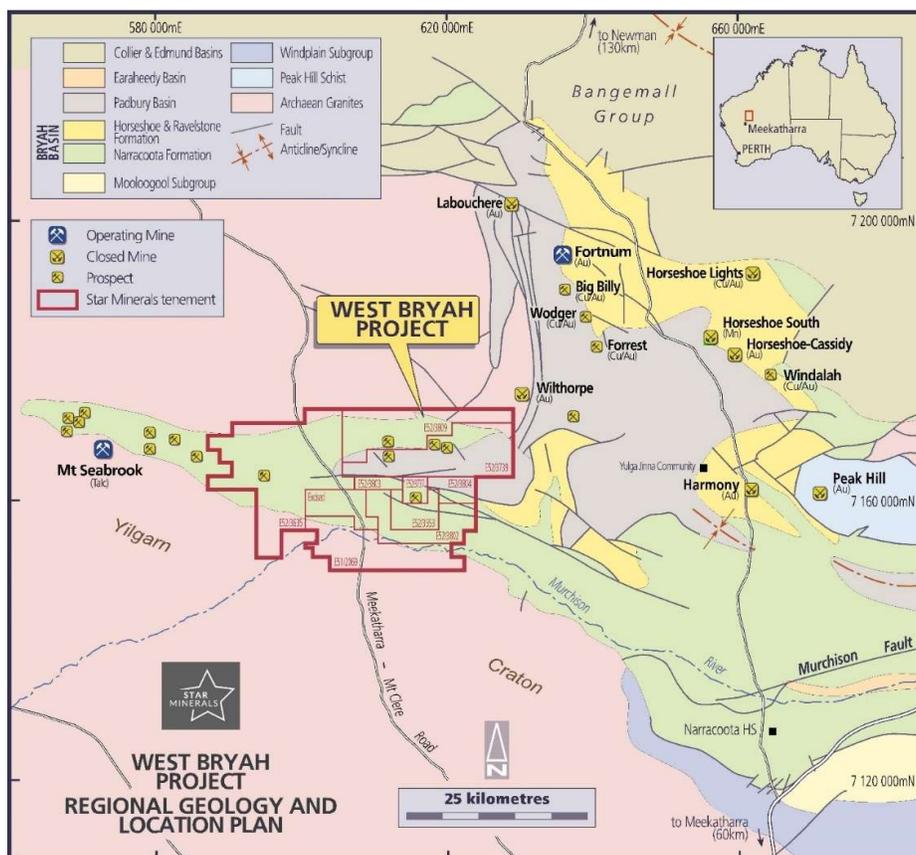
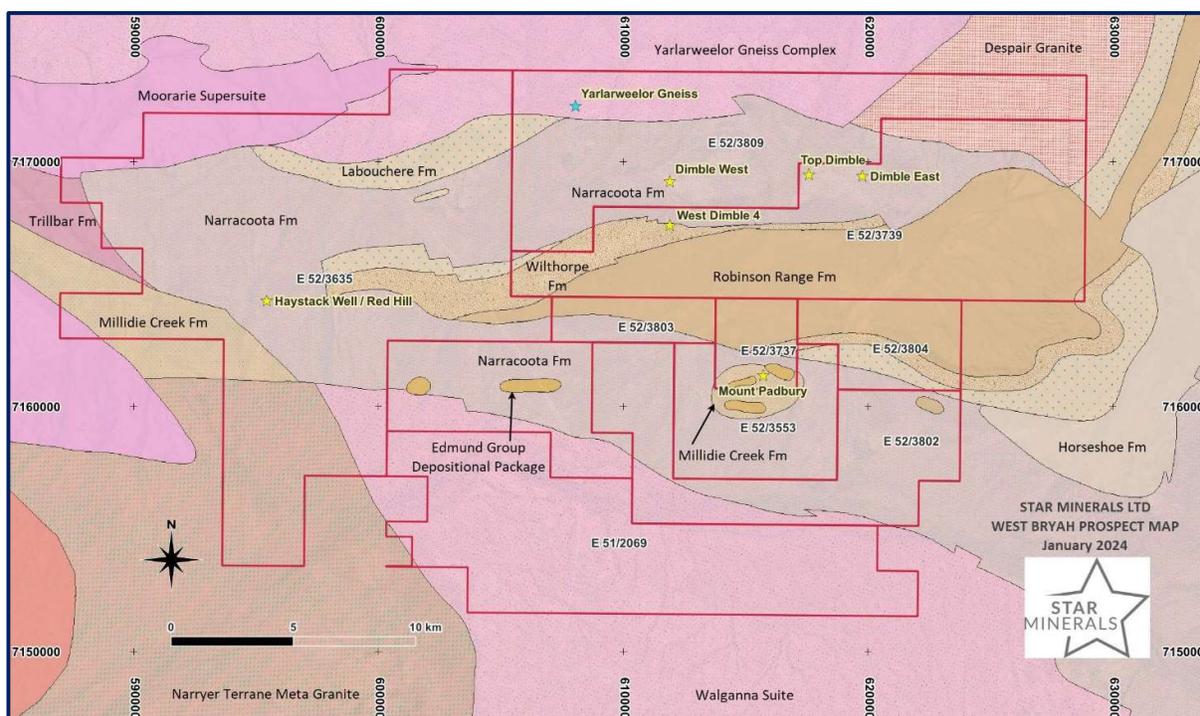


Figure 1: Location Plan for the West Bryah Project with Regional Mines and Prospects

### West Bryah Gold Prospects Overview

The Dimble Prospects and Mount Padbury Prospect were the main areas of interest during the field trip. Figure 2 below shows the location of the gold prospects at the Project, plus the Yarlarweelor Gneiss complex, considered prospective for lithium mineralisation. The Dimble Prospects have historical drilling from the 1970s – 1980s, in addition to multiple generations of soil and surface sampling with digital compilation in progress for all historical data. Rock chip results and a high density of early 1900s workings demonstrate the high grade nature of the gold mineralisation at Dimble. There is good exposure of geology throughout the Dimble Area which extends for 9km strike in the east to west direction, and 2.5km in the north – south direction.

Mount Padbury Prospect to the south of Dimble in tenement E52/3737 is within siliciclastic meta-sediments of the Millidie Creek Formation.



**Figure 2:** West Bryah Project Prospect Plan on 500K GSWA Geology

The reconnaissance trip has identified several features of the gold Prospects, being:

- Presence of rigid quartz vein and siliciclastic sedimentary units that pre-date the gold mineralisation trending about east – west or north – south.

- Secondary NW – SE structures related to the gold mineralisation with high grades in zones of brittle failure at the intersection with pre-existing rigid units.
- Gold mineralisation is present in the highly prospective Narracoota Formation around older ‘buck white’ quartz veining and chert units, and in the Millidie Creek Formation where meta-siltstone or chert units form the rigid pre-existing units.

### **Rock Chip Results**

All rock chip results from the September 2023 trip are presented in Table 1 below. The co-ordinate system is MGA94, zone 50. Prospect locations are shown on Figure 2.

**Table 1: Rock Chip Results for September 2023 Field Trip**

Sample ID	East	North	Au g/t	Ag g/t	Cu %	Comments	Prospect
SMRK055	619756	7169325	<b>30.2</b>	<b>12.4</b>	<b>2.07</b>	Copper stained quartz with dark grey stylolites from mullock dump	Dimble East
SMRK056	617636	7169429	<b>1.24</b>	BDL	0.04	Quartz vein sampled from old workings - Qtz-Fe, weakly brecciated and gossanous.	Top Dimble
SMRK057	623672	7170600	BDL	BDL	0.002	Buck white quartz blow - looks barren.	Despair Granite
SMRK058	613433	7167807	<b>1.58</b>	BDL	0.02	Shallow old workings; relatively massive mafic with thin quartz veins throughout. Workings both sides of the road.	West Dimble 4
SMRK059	611936	7167337	<b>6.83</b>	BDL	0.004	Old workings, quartz + mafic.	West Dimble 4
SMRK060	611955	7167318	0.03	BDL	0.008	Quartz - iron breccia sample	West Dimble 4
SMRK061	611895	7167378	<b>11.1</b>	0.6	0.004	Old workings, quartz + mafic.	West Dimble 4
SMRK062	615650	7161181	<b>12.7</b>	1	0.002	Thin band of quartz veining south of MPRB015. Buck white quartz veining - about 1m wide and thin quartz stringers in meta-siltstone	Mount Padbury
SMRK063	615659	7161185	0.02	BDL	0.001	Quartz breccia sample with hematite staining on same vein as above, directly south of MPRB015	Mount Padbury
SMRK064	615649	7161201	0.01	BDL	0.001	Brittle breccia and laminated quartz vein with some Fe gossan.	Mount Padbury
SMRK065	616278	7161333	0.03	BDL	0.001	Quartz - buck white and siltstone + Qtz stringer sample.	Mount Padbury
SMRK066	616268	7161341	BDL	BDL	0.001	Quartz stringers in fine chert.	Mount Padbury
SMRK067	595383	7164290	BDL	BDL	0.001	Brecciated gossanous quartz on west flank of hill near Haystack Mindex item.	Haystack Well
SMRK068	607974	7172216	BDL	BDL	0.07	Fe (goethite) indurated chert - Fe unit, with some gossan development	Yarlarweelor Gneiss
SMRK069	611828	7169159	BDL	BDL	0.003	Mafic + qtz vein, costean spoils at West Dimble.	Dimble West
SMRK070	611871	7169157	<b>7.97</b>	BDL	0.047	Quartz vein with iron gossan, stylolites, laminations, limonite/jarosite	Dimble West
SMRK071	611906	7169148	BDL	BDL	0.003	Thin Qtz bands in sheared mafic, stylolites plus Fe	Dimble West
SMRK072	611904	7169144	BDL	BDL	0.005	Thin Qtz breccia Fe vein	Dimble West
SMRK073	618906	7169876	BDL	BDL	0.032	Outcrop of Qtz + Fe gossan vein	Top Dimble

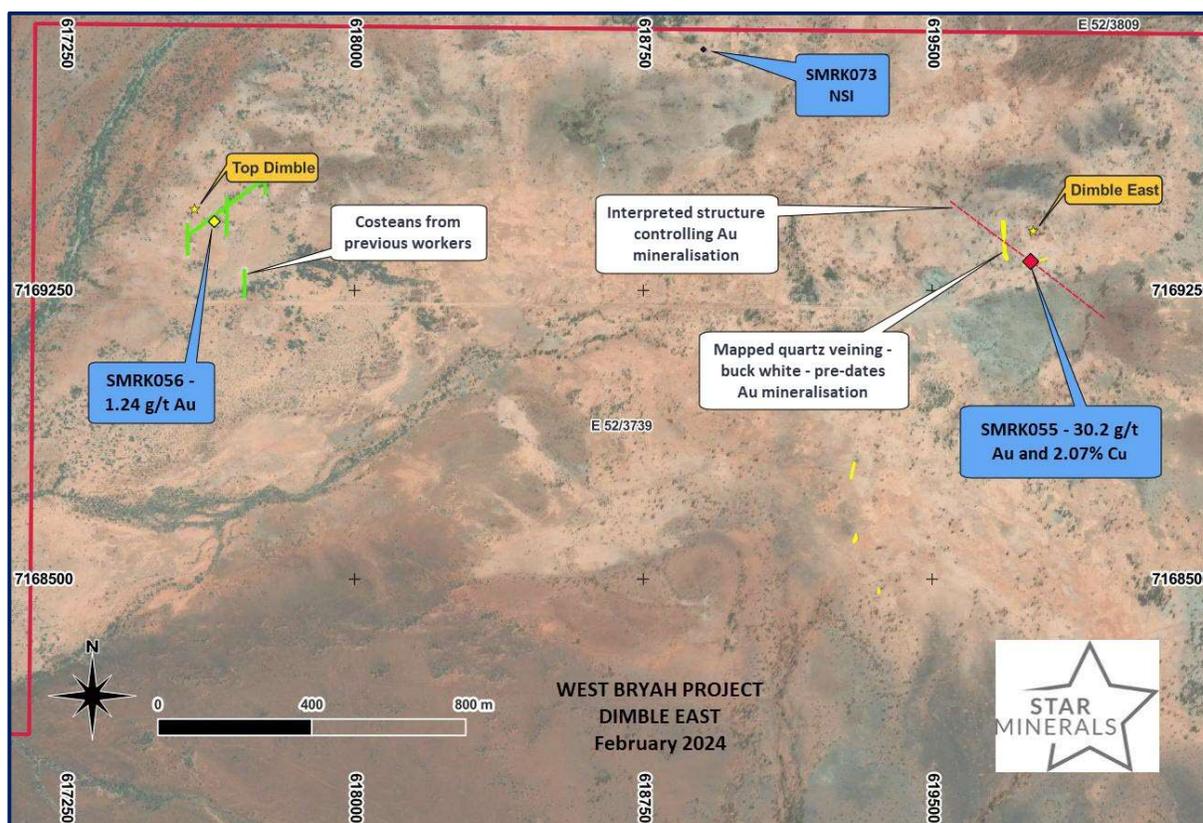
BDL – Below Detection Limit of 0.01 g/t Au and 1.0 g/t Ag.

### Dimble Area

Prospecting during the trip focused on visiting known Mines and mineral deposits (MINEDEX) gold occurrences at the Project to evaluate surface expression of mineralisation. Throughout Dimble prospects there are large areas of quartz float with frequent buck white quartz vein outcrops. Also outcropping are Narracoota Formation mafics that are intensely sheared, and chlorite altered.

Figure 3 below shows the eastern Dimble Prospects, with significant result rock chips labelled, and sample number attributed on the barren samples. The highest grade rock chip for the campaign was recorded at Dimble East, being sample SMRK055 that returned 30.2 g/t Au, 12.4 g/t Ag and 2.07% Cu. This sample was taken from spoils from early 1900s workings on the boundary of a buck white quartz vein. High grade gold mineralisation is interpreted to be in brittle failure zones where gold-bearing structures have intercepted rigid pre-existing quartz veins.

Rock chip SMRK056, similarly collected from early workings spoils returned a result of 1.24 g/t Au at Top Dimble, that has been worked in more recent years with costeans and limited drilling.



**Figure 3:** Dimble East Area – Rock Chip Results with Historical Costeans and Quartz Vein Mapping

The western Dimble Prospects are within Narracoota mafic rocks, with thin quartz stringers with fuchsite alteration. Figure 4 below shows the location of the two prospects visited in the western Dimble area, with rock chip results. There are also abundant 1900s gold workings. Sampling of spoils from the mullock dumps of old workings returned a highest grade of 11.1 g/t Au in sample SMRK061, with nearby SMRK059 grading 6.83 g/t Au. A line of historic drilling was noted and collar positions collected at this location (West Dimble 4) with this historical data prioritised for digital capture.

At Dimble West to the north, sample SMRK070 that was a mullock dump sample from early 1900s workings returned a grade of 7.97 g/t Au.

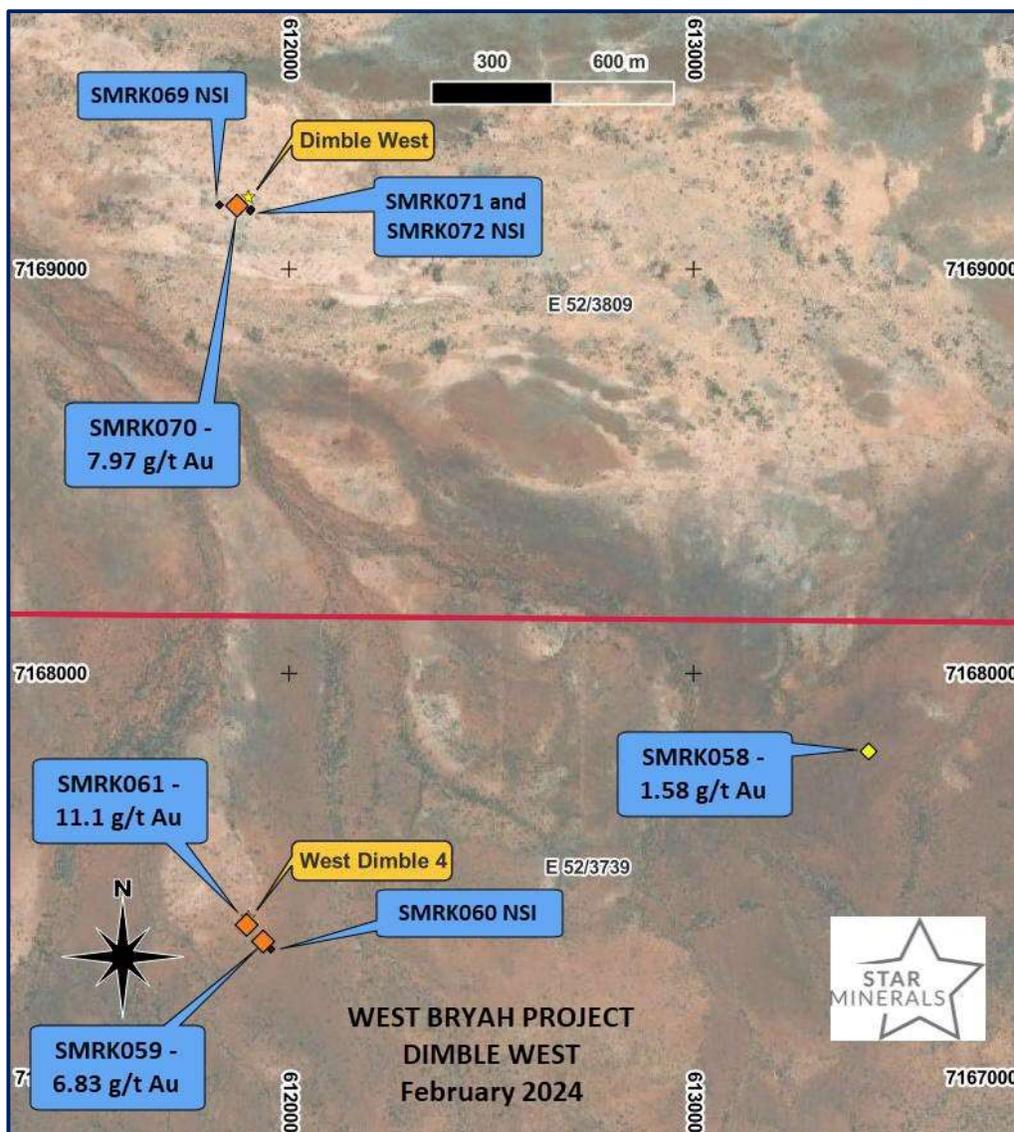


Figure 4: Dimble West Area – Rock Chip Results

### Mount Padbury

Prospecting at the Mount Padbury area aimed to validate the location of Lachlan Resources historical drilling completed in 1997<sup>1</sup>. The ground truthing confirmed georeferencing of the historical dataset is accurate, with evidence of the drilling present at the expected locations. The historical results are further supported by the return of 12.7 g/t Au in sample SMRK062 taken from a stylonitic and laminated quartz vein outcrop immediately south of drill position MPRB015, that returned 12m at 5.66 g/t Au from surface, including 1m at 59.1 g/t Au from 7m down hole at a 0.1 g/t Au cut-off (as reported by Lachlan Resources)<sup>1</sup>. Figure 5 shows the location of the rock chip sample SMRK062 and nearby historical RAB and RC drill collars for Lachlan Resources NL drilling.

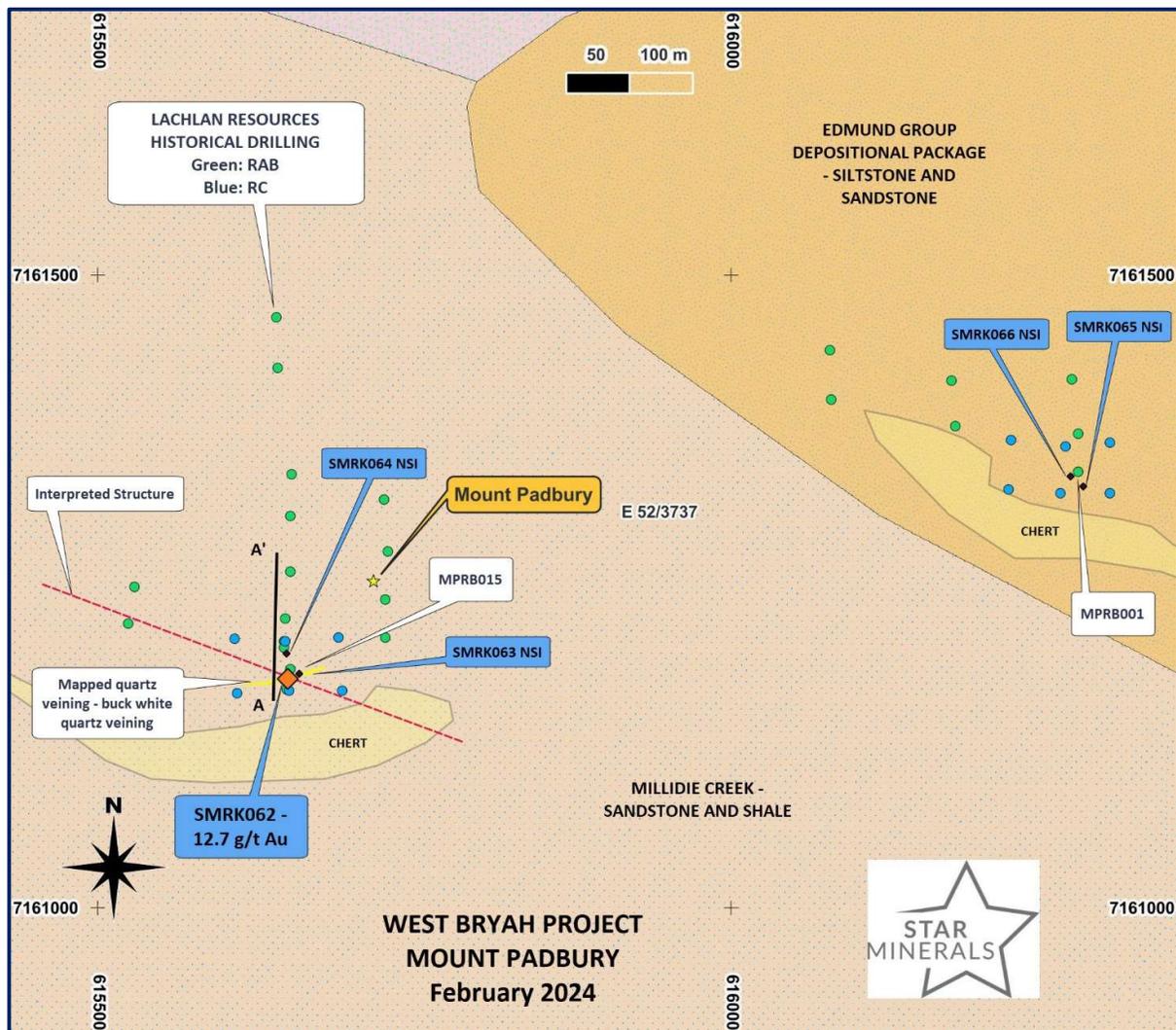


Figure 5: Mount Padbury Prospect with Rock Chip Results and Historical Lachlan Resources NL Drill Collars.

### **Mount Padbury Historical Drill Results**

Between February 1997 and February 1998, Lachlan Resources completed a significant campaign of exploration work at the Mount Padbury area following up on previous surface sampling by Archaean Gold NL (Archaean) between 1994 and 1996<sup>2</sup>. Initial soil sampling by Lachlan Resources at 50 x 100m spacing replicated a 100 x 700m long, northwest trending gold anomaly originally identified in Archaean's work. Infill soil sampling was completed at 25 x 25m in the area where MPRB015 was ultimately drilled and this identified a more discrete >10ppb Au anomaly. Lachlan Resources geologists were confident the results reflected bedrock rather than transported anomalism<sup>1</sup>. Based on results from regional surface sampling, 46 RAB holes for 1,402 metres were drilled, with follow up RC of 12 holes for 984 metres of drilling. Significant RAB results are presented in table 2 below.

**Table 2:** Lachlan Resources NL historical intercepts – RAB drilling at Mount Padbury

Hole ID	From (m)	To (m)	Length (m)	Au (g/t)	Au Gram Metres	Geology Summary
<b>MPRB0001</b>	0	19	19	2.68	50.9	Shale/quartz vein
<i>including</i>	4	5	1	6.14	6.1	Shale
<i>including</i>	8	10	2	17.0	34.0	Quartz vein
<b>MPRB0014</b>	22	31	9	1.35	12.1	Shale/quartz vein
<b>MPRB0015</b>	0	12	12	5.66	67.9	Shale/quartz vein
<i>including</i>	7	8	1	59.1	59.1	Quartz vein
<b>MPRB0018</b>	21	24	3	0.67	2.0	Quartz vein
<b>MPRB0025</b>	24	27	3	0.29	0.9	Siltstone shale
<b>MPRB0038</b>	21	29	8	0.66	5.3	Siltstone/quartz vein
<i>including</i>	24	25	1	2.31	2.3	Siltstone

RAB Intercepts at 0.5 g/t Au total intercept cut-off grade, accepting internal dilution above or equal to 0.1 g/t Au

RAB drilling was sampled at 4m composites initially, with follow up 1m samples submitted for all zones grading greater than 0.1 g/t Au in the 4m composite samples.

RC drilling was then tested areas around the best RAB intercepts. Results from the drilling are summarised in table 3 below. It is worth noting that Lachlan Resources reported RAB and RC cut-offs at 0.1 g/t Au and 1.0 g/t Au cut-offs, respectively. In table 2 above, the intercepts include total intercept grading greater than 0.5 g/t Au rather than a cut-off of 0.1 g.t Au as originally reported by Lachlan Resources.

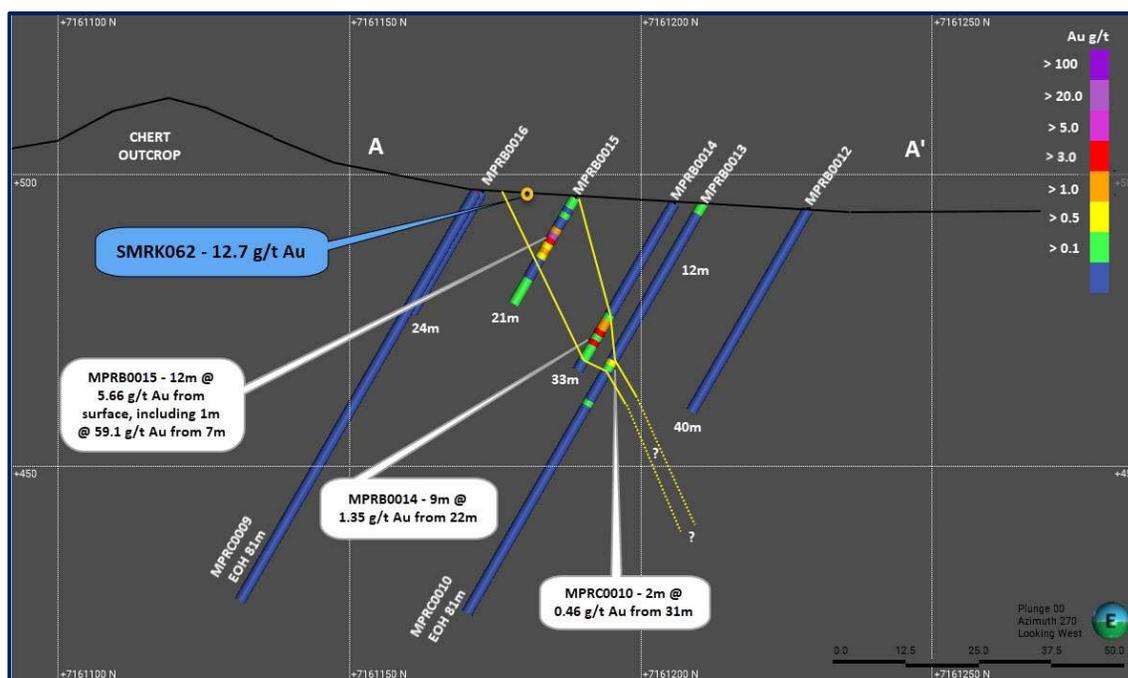
<sup>2</sup> See GSWA Wamex Item A46391 – Ion, JC; “Mount Padbury Project, Annual Report, Period 28.09.94 – 27.09.95 – Exploration Licence 52/882”; Archaean Gold NL.

**Table 3:** Lachlan Resources NL historical intercepts – RC drilling at Mount Padbury

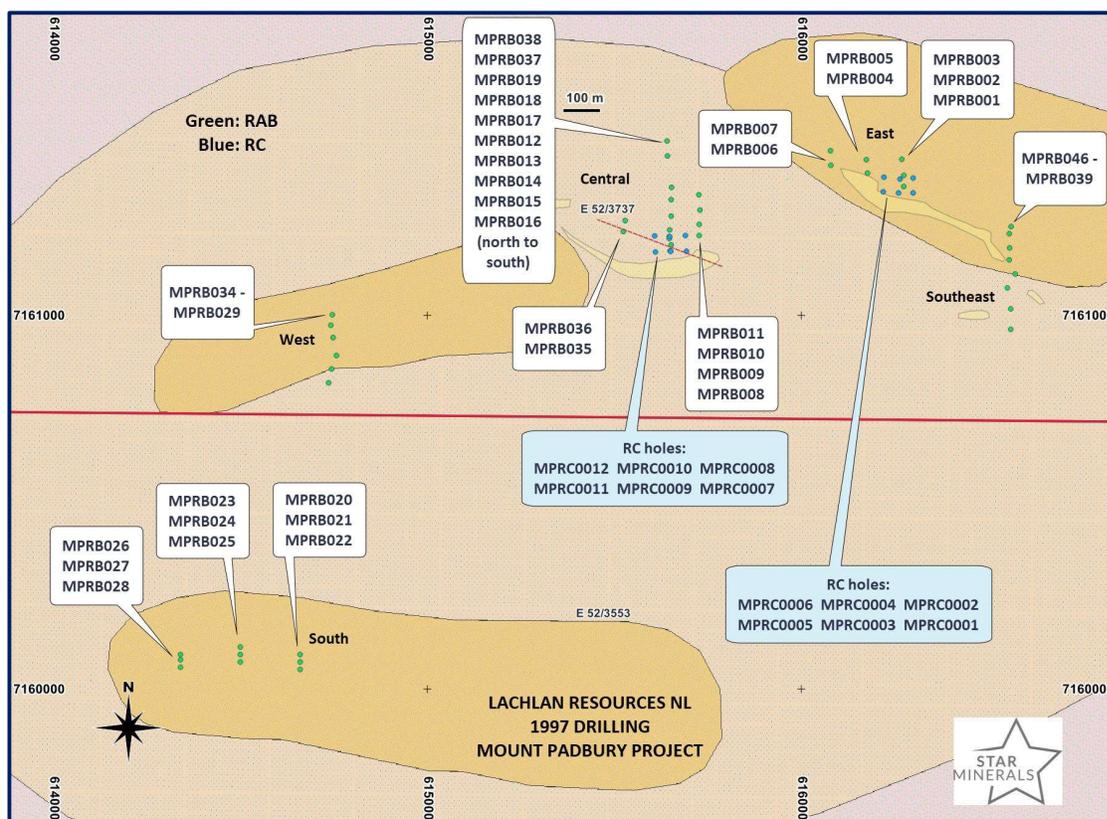
HoleID	From (m)	To (m)	Length (m)	Au (g/t)	Au Gram Metres	Geology Summary
<b>MPRC0002</b>	35	39	4	2.69	10.8	Quartz vein
<i>including</i>	35	36	1	7.43	7.4	Quartz vein
<b>MPRC0002</b>	64	65	1	1.27	1.3	Quartz vein
<b>MPRC0004</b>	11	13	2	2.42	4.8	Saprolite
<b>MPRC0004</b>	20	21	1	1.16	1.2	Quartz vein moderate fuchsite alteration
<b>MPRC0007</b>	5	8	3	1.66	5.0	Quartz vein
<b>MPRC0008</b>	27	28	1	8.04	8.0	Quartz vein weak fuchsite alteration

RC Intercepts at 1.0 g/t Au cut-off grade

Recent reconnaissance by SMS geologists suggests the orientation of gold mineralisation throughout the Project is on a north-west trend, as shown on Figure 5 above. Drill positions may not have been optimal in 1997 to adequately test mineralisation as they were testing an east-west orientation for mineralisation. A cross section of the intercepts in holes MPRB014, MPRC015 and MPRC010 is shown in Figure 6 below. Some RC positions were drilled in front of the mineralised zone, an example being MPRC009 shown on the cross section. A collar plan showing all 46 RAB and 12 RC collars is shown in Figure 7 below has all holes drilled at the Mount Padbury Project by Lachlan Resources NL in 1997. Drill data for the Lachlan Resources 1997 drilling is summarised in Appendix 1, with further information in JORC Table 1 at the end of this report.



**Figure 6:** Cross section of Lachlan Resources drilling at Mount Padbury (1997)



**Figure 7:** Collar Plans for all Lachlan Resources 1997 drilling at Mount Padbury

### **Yarlarweelor Gneiss Complex**

Reconnaissance of the Yarlarweelor Gneiss Complex was completed as a series of traverses. Geology exposure is limited, but there was no evidence of significant deep cover that would render surface geochemistry ineffective. Soil sampling is expected to be an effective method to evaluate the area for anomalism associated with Lithium-caesium-tantalum (LCT) pegmatites if present.

### Next Steps

The West Bryah Project has numerous gold targets. SMS are engaging experts in structural geology to define the best drill positions. In conjunction, soil programs with methods demonstrated to be effective at the neighbouring Livingstone Project (Metal Bank Limited, ASX:MBK) will be completed during the 2024 calendar year to further ensure drilling is effectively targeted.

Compilation of the historical data into a modern dataset for use in 3D software and GIS is ongoing. Historical data is being prioritised based on the tenor of results.



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Initial soil sampling for lithium prospectivity in the Yarlalweelor Gneiss Complex is planned for the 2024 field season.

*For further information, please contact:*

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*This announcement has been produced in accordance with the Company's published continuous disclosure policy and has been approved by the Board.*

### **Competent Person Statement**

The information in this announcement that relates to Exploration Results is based on information compiled by Mr Tony Standish, who is a Member of the Australian Institute of Geoscientists. Mr Standish is a consultant to Star Minerals Limited and Bryah Resources Limited. Mr Standish has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr Standish consents to the inclusion in this announcement of the matters based on his information in the form and context in which it appears.

### **Forward Looking Statements**

This report may contain certain "forward-looking statements" which may not have been based solely on historical facts, but rather may be based on the Company's current expectations about future events and results. Where the Company expresses or implies an expectation or belief as to future events or results, such expectation or belief is expressed in good faith and believed to have a reasonable basis. However, forward looking statements are subject to risks, uncertainties, assumptions and other factors which could cause actual results to differ materially from future results expressed, projected or implied by such forward-looking statements. Readers should not place undue reliance on forward looking information. The Company does not undertake any obligation to release publicly any revisions to any "forward looking statement" to reflect events or circumstances after the date of this report, or to reflect the occurrence of unanticipated events, except as may be required under applicable securities laws.

### **ABOUT STAR MINERALS LIMITED**

SMS is focused on development and exploration of its copper and gold projects. The Company will be using the data gathered to complete the required works to bring the Tumblegum South project up to the necessary level for a decision to mine to be made. In addition, it will use the latest exploration techniques as well as

results of previous exploration work undertaken by Bryah Resources and other explorers to investigate the potential of both the Tumblegum South and West Bryah projects.

The Board's strategy is to advance the exploration and development of its deposits wherever possible, utilising established mining operations and infrastructure to achieve low risk early production outcomes.

In addition, the Company intends to continue to investigate ways to grow its business by:

- acquisition, application, or joint venturing into areas surrounding and adjacent to the Projects; and
- acquisition, application, or joint venturing into other, unrelated but economically attractive projects compatible with the Company's goals and capabilities if, and when opportunities of this type come available.

## APPENDIX 1: Collars and Drill Intercept Results – Lachlan Resources Drilling - 1997

*Lachlan Resources RAB and RC Drill Collars – provided in MGA94, zone 50.*

Hole ID	Drill Type	East	North	RL	Depth (m)	Azimuth	Dip
MPRB0001	RAB	616274	7161345	485	25	180	-60
MPRB0002	RAB	616274	7161375	485	34	180	-60
MPRB0003	RAB	616269	7161418	485	50	180	-60
MPRB0004	RAB	616177	7161381	485	21	180	-60
MPRB0005	RAB	616174	7161417	485	33	180	-60
MPRB0006	RAB	616079	7161402	485	33	180	-60
MPRB0007	RAB	616078	7161441	485	24	180	-60
MPRB0008	RAB	615727	7161214	491	15	180	-60
MPRB0009	RAB	615727	7161244	487	15	180	-60
MPRB0010	RAB	615729	7161282	487	21	180	-60
MPRB0011	RAB	615726	7161323	487	24	180	-60
MPRB0012	RAB	615648	7161229	494	40	180	-60
MPRB0013	RAB	615647	7161211	495	12	180	-60
MPRB0014	RAB	615647	7161206	495	33	180	-60
MPRB0015	RAB	615652	7161189	496	21	180	-60
MPRB0016	RAB	615649	7161173	497	24	180	-60
MPRB0017	RAB	615652	7161266	489	15	180	-60
MPRB0018	RAB	615652	7161310	488	27	180	-60
MPRB0019	RAB	615653	7161343	487	44	180	-60
MPRB0020	RAB	614660	7160093	470	36	180	-60
MPRB0021	RAB	614660	7160073	470	41	180	-60
MPRB0022	RAB	614660	7160053	470	36	180	-60
MPRB0023	RAB	614500	7160113	470	36	180	-60
MPRB0024	RAB	614500	7160093	470	42	180	-60
MPRB0025	RAB	614500	7160073	470	40	180	-60
MPRB0026	RAB	614340	7160093	470	27	180	-60
MPRB0027	RAB	614340	7160079	470	40	180	-60
MPRB0028	RAB	614340	7160059	470	42	180	-60
MPRB0029	RAB	614736	7160820	483	30	180	-60
MPRB0030	RAB	614744	7160857	488	30	180	-60
MPRB0031	RAB	614757	7160893	492	33	180	-60
MPRB0032	RAB	614748	7160941	494	30	180	-60
MPRB0033	RAB	614742	7160974	494	30	180	-60
MPRB0034	RAB	614746	7161002	494	30	180	-60
MPRB0035	RAB	615524	7161225	498	30	180	-60
MPRB0036	RAB	615529	7161254	493	33	180	-60

Hole ID	Drill Type	East	North	RL	Depth (m)	Azimuth	Dip
MPRB0037	RAB	615642	7161427	484	30	180	-60
MPRB0038	RAB	615641	7161467	483	29	180	-60
MPRB0039	RAB	616560	7160963	480	33	180	-60
MPRB0040	RAB	616560	7161018	481	30	180	-60
MPRB0041	RAB	616551	7161074	481	30	180	-60
MPRB0042	RAB	616572	7161111	481	30	180	-60
MPRB0043	RAB	616556	7161149	481	33	180	-60
MPRB0044	RAB	616557	7161181	481	30	180	-60
MPRB0045	RAB	616556	7161219	480	30	180	-60
MPRB0046	RAB	616561	7161238	479	30	180	-60
MPRC0001	RC	616299	7161328	485	81	180	-60
MPRC0002	RC	616299	7161368	485	87	180	-60
MPRC0003	RC	616260	7161328	485	81	180	-60
MPRC0004	RC	616264	7161365	485	81	180	-60
MPRC0005	RC	616219	7161331	485	81	180	-60
MPRC0006	RC	616221	7161370	485	81	180	-60
MPRC0007	RC	615693	7161172	495	81	180	-60
MPRC0008	RC	615690	7161214	495	81	180	-60
MPRC0009	RC	615651	7161172	497	81	180	-60
MPRC0010	RC	615648	7161211	495	81	180	-60
MPRC0011	RC	615610	7161170	495	87	180	-60
MPRC0012	RC	615608	7161213	495	81	180	-60

### Lachlan Resources 1997 RAB Assay Result Summary

Intercepts re-calculated from full digital dataset of 1997 results with down hole composites being greater than 0.5 g/t Au with no more than 3m internal dilution at grades between 0.1 and 0.5 g/t Au. True widths are unknown.

Hole ID	From	To	Interval	Au g/t	Au Gram Metre	Geology
MPRB0001	0	13	13	3.76	48.9	Saprock shale and quartz vein
<i>including</i>	4	5	1	6.14	6.1	<i>Saprock shale</i>
<i>and including</i>	8	11	3	12.25	36.8	<i>Saprock quartz vein</i>
MPRB0001	17	18	1	0.88	0.9	Saprock quartz vein
MPRB0002	-	-	-	NSI	-	Shale
MPRB0003	-	-	-	NSI	-	Shale and quartz vein
MPRB0004	-	-	-	NSI	-	Shale, chert and quartz vein
MPRB0005	-	-	-	NSI	-	Shale and quartz vein
MPRB0006	-	-	-	NSI	-	Shale and quartz vein
MPRB0007	-	-	-	NSI	-	Shale
MPRB0008	-	-	-	NSI	-	Shale
MPRB0009	-	-	-	NSI	-	Shale
MPRB0010	-	-	-	NSI	-	Shale
MPRB0011	-	-	-	NSI	-	Shale
MPRB0012	-	-	-	NSI	-	Shale
MPRB0013	-	-	-	NSI	-	Shale
MPRB0014	23	28	5	2.22	11.1	Shale and quartz vein
MPRB0015	6	12	15	11.23	168.5	Quartz vein and shale
<i>including</i>	7	8	1	59.13	59.1	<i>Quartz vein</i>
MPRB0016	-	-	-	NSI	-	Shale, chert and quartz vein
MPRB0017	-	-	-	NSI	-	Shale, chert and quartz vein
MPRB0018	16	17	1	0.51	0.5	Shale
MPRB0018	22	24	2	0.92	1.8	Quartz vein
MPRB0019	-	-	-	NSI	-	Shale
MPRB0020	-	-	-	NSI	-	Arenite, siltstone, shale and quartz vein
MPRB0021	-	-	-	NSI	-	Arenite, siltstone, schist and quartz vein
MPRB0022	-	-	-	NSI	-	Arenite, siltstone, schist
MPRB0023	-	-	-	NSI	-	Siltstone, arenite, weak sericite alteration
MPRB0024	-	-	-	NSI	-	Arenite, siltstone, shale
MPRB0025	-	-	-	NSI	-	Arenite, siltstone, shale
MPRB0026	-	-	-	NSI	-	Arenite and quartz vein
MPRB0027	-	-	-	NSI	-	Arenite and schist
MPRB0028	-	-	-	NSI	-	Arenite, siltstone and schist
MPRB0029	-	-	-	NSI	-	Siltstone, arenite, shale and quartz vein
MPRB0030	-	-	-	NSI	-	Arenite, shale, siltstone and schist
MPRB0031	-	-	-	NSI	-	Arenite, sandstone, siltstone and quartz vein
MPRB0032	-	-	-	NSI	-	Arenite, siltstone and quartz vein
MPRB0033	-	-	-	NSI	-	Conglomerate, siltstone, shale and quartz vein
MPRB0034	-	-	-	NSI	-	Arenite and siltstone
MPRB0035	-	-	-	NSI	-	Shale and quartz vein
MPRB0036	-	-	-	NSI	-	Shale, quartz vein and arenite
MPRB0037	-	-	-	NSI	-	Siltstone and shale
MPRB0038	22	24	2	0.68	1.4	Siltstone
MPRB0039	-	-	-	NSI	-	Shale, siltstone, schist and quartz vein
MPRB0040	-	-	-	NSI	-	Sandstone, jaspilite, shale and quartz vein
MPRB0041	-	-	-	NSI	-	Arenite, shale, slate and quartz vein
MPRB0042	-	-	-	NSI	-	Siltstone, arenite, shale and quartz vein
MPRB0043	-	-	-	NSI	-	Siltstone, conglomerate, arenite and quartz vein
MPRB0044	-	-	-	NSI	-	Arenite, siltstone and sandstone
MPRB0045	-	-	-	NSI	-	Siltstone, shale and arenite
MPRB0046	-	-	-	NSI	-	Siltstone and quartz vein



### **Lachlan Resources 1997 RC Assay Result Summary**

Intercepts re-calculated from full digital dataset of 1997 results with down hole composites being greater than 0.5 g/t Au with no more than 3m internal dilution at grades between 0.1 and 0.5 g/t Au. True widths are unknown.

Hole ID	From	To	Interval	Au g/t	Au Gram Metre	Geology
MPRC0001	-	-	-	NSI	-	Chert, shale and arenite, minor quartz veining
MPRC0002	35	39	4	2.68	10.7	Quartz Vein
<i>including</i>	<i>35</i>	<i>36</i>	<i>1</i>	<i>7.43</i>	<i>7.4</i>	<i>Quartz vein</i>
MPRC0002	64	65	1	1.25	1.3	Quartz Vein
MPRC0003	-	-	-	NSI	-	Shale and Chert
MPRC0004	3	4	1	0.77	0.8	Saprolite
MPRC0004	11	17	6	0.98	5.9	Saprolite
<i>including</i>	<i>11</i>	<i>13</i>	<i>2</i>	<i>2.09</i>	<i>4.2</i>	<i>Saprolite</i>
MPRC0004	20	22	2	0.88	1.8	Quartz vein with fuchsite
MPRC0004	45	46	1	0.5	0.5	Shale saprock
MPRC0005	-	-	-	NSI	-	Shale and arenite, minor quartz veining
MPRC0006	-	-	-	NSI	-	Shale, chert and jaspilite
MPRC0007	2	10	8	1.01	8.1	Quartz vein and shale
MPRC0008	25	29	4	2.48	9.9	Shale and quartz vein with weak fuchsite
<i>including</i>	<i>27</i>	<i>28</i>	<i>1</i>	<i>8.34</i>	<i>8.3</i>	<i>Quartz vein with fuchsite</i>
MPRC0008	36	37	1	0.54	0.5	Shale saprock
MPRC0009	-	-	-	NSI	-	Shale, arenite and jaspilite
MPRC0010	-	-	-	NSI	-	Shale, conglomerate and arenite, minor quartz veining
MPRC0011	-	-	-	NSI	-	Shale, arenite, chert and jaspilite, minor quartz veining
MPRC0012	26	29	3	0.72	2.2	Saprolite shale and quartz vein



## West Bryah Project (Rock Chips and Historical Drilling Results)

### JORC Code, 2012 Edition – Table 1 Exploration Results

#### Section 1 Sampling Techniques and Data

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul style="list-style-type: none"> <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.</li> <li>In cases where 'industry standard' work has been done this would be relatively simple (e.g. 'reverse circulation drilling was used to obtain 1m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases, more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (e.g. submarine nodules) may warrant disclosure of detailed information.</li> </ul>	<ul style="list-style-type: none"> <li>Rock chips collected by Star Minerals during 2023 were 'grab samples' of rock at the surface. They are not representative channel cuts from the outcrops.</li> <li>No additional tools were used for the rock chip samples apart from laboratory assay.</li> <li>Drilling by Lachlan Resources NL in 1997 collected samples as spear sampled 4m composites from drill spoils placed on the ground. Intervals greater than 0.1 g/t Au were also spear sampled from the 1m interval spoils piles on the ground.</li> <li>RC by Lachlan Resources produced 1m interval samples that were riffle split on the rig as they were drilled.</li> <li>Lachlan Resources submitted various rounds of check assays to ensure gold results were repeatable. These methods are detailed further in below sections.</li> <li>Soil sampling by Lachlan Resources is of unknown fraction. Company geologists at the time did recognise that part of the &gt; 6ppb anomaly (northern area) was sampling transported material, so an infill grid was completed only over the area where sampling tested bedrock.</li> </ul>
Drilling techniques	<ul style="list-style-type: none"> <li>Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (e.g. core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).</li> </ul>	<ul style="list-style-type: none"> <li>Star Minerals has not completed any drilling to date at the Project.</li> <li>Drilling by Lachlan Resources in 1997 consisted of RAB drilling (cut blade with hammer used as required) and conventional RC drilling. Details of the bit used are unknown.</li> <li>No core has been drilled at the Project.</li> </ul>
Drill sample recovery	<ul style="list-style-type: none"> <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</li> </ul>	<ul style="list-style-type: none"> <li>Rock chip samples reported herein by Star Minerals are grab samples, and do not reflect whole rock chemistry of the outcrops they were taken from.</li> <li>Methods employed by Lachlan Resources to assess recovery is unknown, and therefore a relationship between recovery and grade is not determined.</li> <li>Lachlan Resources did complete many stages of umpire laboratory assaying and conducted multiple check samples on the RAB and RC to check repeatability of</li> </ul>

Criteria	JORC Code explanation	Commentary
	preferential loss/gain of fine/coarse material.	results.
Logging	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>Rock chip samples were geologically described, with this information captured in the Company database.</li> <li>Lachlan Resources drilling has full geological logging for all drilling reported for the 1997 – 1998 period. Geological logging is qualitative in nature, and all drilled lengths have logging.</li> </ul>
Sub-sampling techniques and sample preparation	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>No core was drilled at the Project.</li> <li>For Lachlan Resources drilling in 1997, RC samples were riffle split on the rig. 4m and 1m samples of RAB were spear sampled.</li> <li>Sample preparation methods utilised by the Commercial laboratories for the Lachlan Resources drilling are unknown.</li> <li>Quality control procedures adopted are unknown, except that 60 ‘duplicate’ RC samples for the Lachlan Resources drilling were submitted to a second laboratory (AMDEL Meekatharra) for check analysis with results showing repeatability of the initial results received for the gold assay at Minilabs Laboratory in Perth.</li> <li>Lachlan Resources submitted duplicate samples (60 check samples to AMDEL) at a frequency of 1:17 for the RC program.</li> <li>There are indications the region has nuggety gold, given the high values in some drill intervals, and some rock chips collected by Star Minerals. Sample sizes appear to have been appropriate for the Lachlan Resources drilling, as check samples returned results very similar to primary samples.</li> <li>No information is available regarding QAQC methods for 1997 Lachlan Resources soil sampling.</li> </ul>
Quality of assay data and laboratory tests	<ul style="list-style-type: none"> <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, 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.</li> <li>Nature of quality control procedures adopted (e.g. standards,</li> </ul>	<ul style="list-style-type: none"> <li>Star Rock Chips were assayed by Fire Assay (40 gram) at a commercial laboratory. Al, Cu, Ag, As, Bi, Mo, Ni, Pb, Sb, Sn, Te, W and Zn were also assayed by ICP-AES.</li> <li>Analysis of Star Minerals Rock chips is considered total detection. No other tools were used and no QAQC samples were submitted. The commercial laboratory employed internal QAQC checks.</li> <li>Lachlan Resources drill samples were assayed by B/ETA for gold to a detection limit of 1ppm for the 4m comps for RAB drilling. As, Cu and Cr were assayed by B/AAS to 5ppm, 1ppm and 1ppm detection respectively, with analysis completed at Genalysis</li> </ul>



Criteria	JORC Code explanation	Commentary
	blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.	<p>Laboratory in Perth. 1m RAB samples were assayed by Fire Assay (50 gram) for 0.01ppm lower detection limit at Minilab Laboratory in Kalgoorlie. RC samples were assayed by Fire Assay (50 gram) for a 0.01ppm detection and Cu and As by SAD for 2ppm and 5ppm lower detection limit respectively at Minilab Laboratory. 60 check samples for the RC drilling were submitted to AMDEL in Meekatharra.</p> <ul style="list-style-type: none"> <li>It is unknown whether Lachlan Resources submitted CRMs or blank samples with the drilling. It is assumed the commercial laboratories employed had internal QAQC protocols to verify results before reporting to the client.</li> <li>Lachlan Resources soils were assayed by B/ETA at Genalysis laboratory in Perth.</li> </ul>
Verification of sampling and assaying	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>No verification of significant intersections has been performed.</li> <li>No twin holes are known that intercepted mineralisation.</li> <li>Data for the Lachlan Resources drilling was collated onto paper forms in the field.</li> <li>No adjustments have been made to assay data.</li> </ul>
Location of data points	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>Accuracy of rock chip locations reported by Star Minerals are about +/- 5m, as they were recorded using a handheld GPS. Results reported in this release are in MGA94 zone 50.</li> <li>The accuracy of the survey for the Lachlan Resources drilling is unknown, however, the historical results were reported in AMG84, and converted to MGA94 by Star Minerals geologists. Field locations were verified by Star Minerals geologists, with evidence of the historical drill pads and drill cuttings at the expected locations. Accuracy of the historical collars is likely to +/- 10m.</li> </ul>
Data spacing and distribution	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>Rock chips collected by Star Minerals were taken at random spacings, where outcrop or mullock dumps from old workings were available.</li> <li>Spacing of the Lachlan Resources drilling ranged from 15 – 200m apart.</li> <li>The current drill set does not support Mineral Resource or Ore Reserve estimates.</li> <li>Lachlan Resources collected 4m composites initially for the RAB drilling, then collected 1m samples where intervals in the composites graded greater than 0.1 g/t Au.</li> </ul>
Orientation of data in relation to geological structure	<ul style="list-style-type: none"> <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>	<ul style="list-style-type: none"> <li>The full relationship of the Lachlan Resources drilling to the mineralised structures is currently uncertain, however preliminary field interpretations of a northwest trending structural regime suggests the drilling was oblique to the mineralisation and will be thicker down hole than in true width.</li> </ul>



Criteria	JORC Code explanation	Commentary
Sample security	<ul style="list-style-type: none"> <li>The measures taken to ensure sample security.</li> </ul>	<ul style="list-style-type: none"> <li>Star rock chips were in the possession of the Company for the whole time through to delivery at the commercial laboratory.</li> <li>Sample security for the Lachlan Resources drilling and soil sampling is unknown.</li> </ul>
Audits or reviews	<ul style="list-style-type: none"> <li>The results of any audits or reviews of sampling techniques and data.</li> </ul>	<ul style="list-style-type: none"> <li>No audits or reviews have been completed.</li> </ul>

## Section 2 Reporting of Exploration Results

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

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>The West Bryah Project lies on the Mount Padbury and Yarlaweelor Pastoral Stations. Native title interests are held by the Nharnuwangga Wajarri and Ngarlawangga. Star Minerals are currently seeking to enter a Heritage Agreement with the Jidi Jidi Aboriginal Corporation. Tenement E52/3839 has an existing agreement.</li> <li>No material conditions exist with any third parties on the tenure.</li> <li>The tenure is in good standing and granted.</li> <li>There are no known impediments to obtaining a licence to operate in the area.</li> </ul>
Exploration done by other parties	<ul style="list-style-type: none"> <li>Acknowledgment and appraisal of exploration by other parties.</li> </ul>	<ul style="list-style-type: none"> <li>There have been many campaigns of exploration throughout the Project tenure. At this point, Star Minerals are still systematically working through collation of the historical dataset.</li> <li>Key historical Wamex Items for the Dimble Prospects include: <ul style="list-style-type: none"> <li>A15933 – Hunter Resources Ltd – Dimble PL 52/93 Annual Report for 12/1/84 – 17/1/85</li> <li>A15935 – Hunter/Samantha Joint Venture – Edited extract from Glengarry Basin Project, part of EL 52/99 Dimble, Report on Phase 1 – 1984</li> <li>A17277 – Hunter/Samantha Joint Venture – Glengarry Basin Project, Report on Phase 2 – 1985 (detailing of costean work)</li> </ul> </li> <li>Drilling by Lachlan Resources during 1997 was the first known drill testing of the Mount Padbury prospect, and it has remained un-worked since that time. Drill testing was based on a campaign of soil sampling (387 samples) that identified &gt;5ppb Au anomalies in the area.</li> <li>Evidence of regional mineralisation exists in numerous 1900s gold workings with multiple shafts and associated mullock dumps throughout the region.</li> <li>Relevant WAMEX Items reporting historical work at Mount Padbury for this release</li> </ul>

Criteria	JORC Code explanation	Commentary
		<p>are:</p> <ul style="list-style-type: none"> <li>○ A54171 – Lachlan Resources NL – Mount Padbury Project Annual Report for 02/02/97 – 01/02/98</li> <li>○ A46391 – Archaean Gold NL – Mount Padbury Project Annual Report for 28/09/94 – 27/09/95</li> </ul>
Geology	<ul style="list-style-type: none"> <li>• Deposit type, geological setting and style of mineralisation.</li> </ul>	<ul style="list-style-type: none"> <li>• The gold mineralisation at the West Bryah Project appears to be controlled by brittle failure along rheology contrast, resulting in dilational zones where north-west trending structures have intersected rigid units such as older quartz veins and siliciclastic sedimentary rocks.</li> <li>• Regionally, the area is a highly deformed Proterozoic basin, with Formations of the Bryah Group and Mount Padbury Group present.</li> </ul>
Drill hole Information	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <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 style="list-style-type: none"> <li>• All information is provided as tabulated and graphical data within the body and Appendix 1 of this report.</li> <li>• NSI results have also been reported for full disclosure.</li> </ul>
Data aggregation methods	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>• No weighting average or grade truncations have been applied.</li> <li>• Historical results from the Lachlan Resources drilling are reported at greater than 0.1 g/t Au for the RAB (including up to 4m of internal waste) and greater than 1.0 g/t Au for the RC.</li> <li>• SMS have re-reported the Lachlan Resources intercepts at continuous zones of greater than 0.5 g/t Au for both RAB and RC, accepting up to 3m of internal dilution at grades between 0.1 – 0.3 g/t Au.</li> <li>• No metal equivalents have been used.</li> </ul>
Relationship between mineralisation	<ul style="list-style-type: none"> <li>• These relationships are particularly important in the reporting of Exploration Results.</li> <li>• If the geometry of the mineralisation with respect to the drill hole</li> </ul>	<ul style="list-style-type: none"> <li>• The geometry of the mineralisation to the historical drilling is currently unconfirmed. Further exploration is required to determine the relationship.</li> </ul>

Criteria	JORC Code explanation	Commentary
widths and intercept lengths	<p>angle is known, its nature should be reported.</p> <ul style="list-style-type: none"> <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>	
Diagrams	<ul style="list-style-type: none"> <li>Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported. These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.</li> </ul>	<ul style="list-style-type: none"> <li>Maps and tabulated data, plus a cross section have been provided for the historical results for clarity. The location of all SMS rock chips with maps of relevant results are provided.</li> </ul>
Balanced reporting	<ul style="list-style-type: none"> <li>Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.</li> </ul>	<ul style="list-style-type: none"> <li>Results have been fully disclosed for rock chip and historical drilling results.</li> </ul>
Other substantive exploration data	<ul style="list-style-type: none"> <li>Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.</li> </ul>	<ul style="list-style-type: none"> <li>Geological observations have been provided in tabulations of results.</li> <li>No further study information is available to report.</li> </ul>
Further work	<ul style="list-style-type: none"> <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>	<ul style="list-style-type: none"> <li>Future exploration will focus on the Dimble and Mount Padbury prospects, for which clear maps showing the location and extent of known mineralisation have been provided.</li> <li>The Prospect map in Figure 2 also shows the extent of Yarlarweelor Gneiss within the Project tenure, that is considered prospective for lithium mineralisation.</li> </ul>