

TASMANIAN ADVANCED MINERALS PTY LTD

ABN 51 122 089 221

19 Stennings Rd, Wynyard, Tasmania 7325

EL30/2014 BLACKWATER RIVULET

REPORT TO 26<sup>th</sup> MARCH, 2017

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27<sup>th</sup> June, 2017

## **Abstract**

- This report deals with the second round of exploration for silica flour in EL30/2014 Blackwater Rivulet
- The work aimed at testing beneath Tertiary gravel on and east of Blackwater Spur 5 for the presence of silica flour.
- The work also aimed at a fuller delineation of the previously identified silica flour deposit at the 'Little Hill' prospect, west of the northern part of Blackwater Spur 5.
- A total of 35 new test pits were put down in the licence, these being in addition to the 70 test pits put down in 2015.
- A total of 26 new auger holes were also put down using Tasmanian Advanced Minerals Pty Ltd.'s 'Dando Terrier' drill rig.
- Auger drilling and/or test pitting in five localities on and east of Blackwater Spur 5 found dolomite and clay to underlie the Tertiary gravel.
- 13 new test pits together with 16 previous test pits and 19 new auger holes formed the basis for a preliminary estimate (non-JORC) of 135,062 tonnes of pale coloured silica flour at the 'Little Hill' prospect.

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Figure 4b. Form of silica flour deposit, 'Little Hill' prospect

### **List of Digital Files (Appendices)**

EL302014-2017-01-SL\_1.xlsx

EL302014-2017-02-DL\_1.xlsx

EL302014-2017-03-DG\_1.xlsx

EL302014-2017-04-DL\_1.xlsx

EL302014-2017-05-SL\_1.xlsx

EL302014-2017-06-DG\_1.xlsx

EL302014-2017-07-DG\_1.xlsx

EL302014-2017-Filelisting.xlsx

## **1. Introduction**

Tasmanian Advanced Minerals Pty Ltd (TAM) is the holder of exploration licence 30/2014 Blackwater Rivulet. The company is searching for naturally pure deposits of sand and silt sized quartz particles known as silica flour. New deposits of this material will increase the resource base available to TAM's processing plant at Wynyard where the raw material is refined in readiness for export to specialist glass manufacturers elsewhere in the world.

EL30/2014 is located in north western Tasmania and spans the Arthur River some 30 km SSW of Smithton (Figure 1). The tenement is of interest to TAM because the Smithton Dolomite which underlies a belt running through the tenement is similar to dolomite that underlies the company's known commercial deposits of silica flour. Notably, the Hawkes Creek mine lies along strike to the northwest, in the same belt of Smithton Dolomite.

March 26<sup>th</sup>, 2018 will be the third anniversary of the granting of EL30/2014. This report covers field activities that commenced in the second year of the exploration licence, but were delayed such that they were completed in the third year. All work in the tenement has been referenced to the GDA94 geographic datum.

## **2. Review of previous work**

Work in the first year of tenure of EL30/2014 (Stuart, 2016) consisted of test pitting in localities near Blackwater Spur 5 (Figures 2, 3) and in a locality north of the Arthur River known as Fourth Hill South East. Pale coloured silica flour was found to be widespread along Spur 5, but is of erratic chemical composition. However, consistently good chemical results were returned from the 'Little Hill' prospect and these have been followed up in the current round of work (Figures 4a, 4b).

The first year work found that inconsistent chemistry was also a feature of the pale coloured silica flour at Fourth Hill SE. Follow up work has been done in this locality though it has been inside ML 27M/2009 and is reported separately.

## **3. Exploration completed during the reporting period**

### **3.1 Regional work**

New test pitting and auger drilling were carried out in five localities in a 4 km interval extending from Spur 5 in the south of the area covered by Figure 2 northwards along the eastern part of the belt of Smithton Dolomite (Figures 2, 3; Appendices 1, 2, 4, 5) in a search for silica flour beneath superficial Tertiary gravel. No silica flour was found. It appears that the gravels in this zone are underlain by weathered dolomite and clay that is at least partly after weathered dolomite.

### **3.2 'Little Hill' prospect**

Auger drilling was carried out in the deeper parts of the deposit and additional test pits were put down to better define the margins of the deposit (Figure 4a, Appendices 1-6). Altogether there have been 29 test pits and 19 auger holes put down in the 'Little Hill' deposit.

## **4. Discussion of results**

The data for the 'Little Hill' prospect have been used to interpret the form of the silica flour deposit (Figure 4b) and to make a preliminary estimate of the overall mass of

the pale coloured silica flour that is contained in the deposit. This overall mass includes a dominant component of Standard Grade material, that is, silica flour from which a standard commercial product can be derived with normal processing. There is also a subordinate component of Blendable Grade, that is, material that requires more advanced processing along with blending with other material to make a commercial product.

An estimate of the overall tonnage for 'Little Hill' has been made as follows (refer Figure 4b):

Area between 1-5 m isopachs	9728 m <sup>2</sup>
Area between 5-6 m isopachs	2192 m <sup>2</sup>
Area +6 m isopach	4020 m <sup>2</sup>
Average thickness 1-5 m	3.00 m
Average thickness 5-6 m	5.50 m
Average thickness +6 m	6.54 m
Volume 1-5 m	29184 m <sup>3</sup>
Volume 5-6 m	12056 m <sup>3</sup>
Volume +6 m	26291 m <sup>3</sup>
Total volume	67531 m <sup>3</sup>
Estimated mass at 2 tonnes/m <sup>3</sup>	135,062 tonnes

No estimate has been made of the waste component and no estimate has been made of the amounts of Standard Grade and Blendable Grade.

## 5. Conclusions

The 2017 test pitting and auger drilling has not been encouraging in terms of finding silica flour beneath the Tertiary gravel along the eastern side of the belt of Smithton Dolomite in EL30/2014 and along Spur 5 in the south of the area covered by Figure 2. Nor has the combined 2015/2017 test pitting been encouraging in terms of commercial deposits along much of the length of Blackwater Spur 5 despite demonstrating the widespread presence of pale coloured silica flour.

However, the 2015/2017 work at the 'Little Hill' prospect has delineated a promising silica flour deposit with an estimated mass of 135,062 tonnes (non-JORC) and predominantly of very good chemistry. It is recommended that bulk sampling of the 'Little Hill' deposit be carried out.

The lack of encouragement from the auger drilling along Blackwater Spur 5 in the south of the area covered by Figure 2 is consistent with the lack of encouragement from earlier work in the nearby area covered by the southern part of EL30/2014 (Turner, 2007). Therefore, it is recommended that the portion of EL30/2014 south of grid line 5,442,000mN be relinquished. It is recommended that the silica flour deposits along Spur 5 north of gridline 5,442,000mN be held for the duration of the exploration licence pending possible further improvements in TAM's capacity to process poorer quality silica flour.

## 6. Environment

Test pits were back filled after sampling and logging and the soil and humus replaced. Collars of auger holes were blocked. All tracks remain open pending possible further work and will be rehabilitated prior to relinquishment of ground. Test pit sites and auger drill sites on and along the tracks will be further rehabilitated at that time.

### Expenditure

	<b>Apr '16 – Mar '17</b>	<b>Apr '17 – Jul 17</b>
Geologist & Exp. supervision	\$24,659	\$18,284
Equipment, Fuel & Manpower	\$12,741	\$5,620
Equipment Depreciation	\$7,589	\$3,871
Sample Analysis	\$2,041	\$13,600
Laboratory & Sample Equipment	\$2,333	\$2,400
Other exploration items	\$2,700	\$0
Management & Administration	\$5,206	\$4,377
<b>Total</b>	<b>\$57,271</b>	<b>\$48,152</b>

### References

Everard, J.L., McClenaghan, M.P., Brown, A.V., Seymour, D.B., Green, D.C. and Reed, A.R. (compilers) 2015. Digital Geological Atlas 1:25 000 Scale Series. Sheet 3244 Sumac. Mineral Resources Tasmania.

Stuart, C. 2016. EL30/2014 Blackwater Rivulet. Annual report to 26<sup>th</sup> March, 2016. Tasmanian Advanced Minerals Pty Ltd

Turner, N. J. 2007. EL61/94 Arthur River, Annual Report to 9th June, 2007 & Final Report. Cominex Pty Ltd

### Appendices

Digital Files – submitted separately.

EL302014-2017-01-SL\_1.xlsx

EL302014-2017-02-DL\_1.xlsx

EL302014-2017-03-DG\_1.xlsx

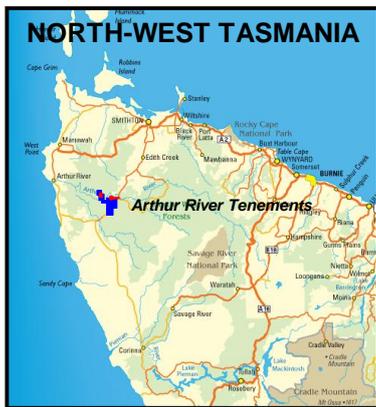
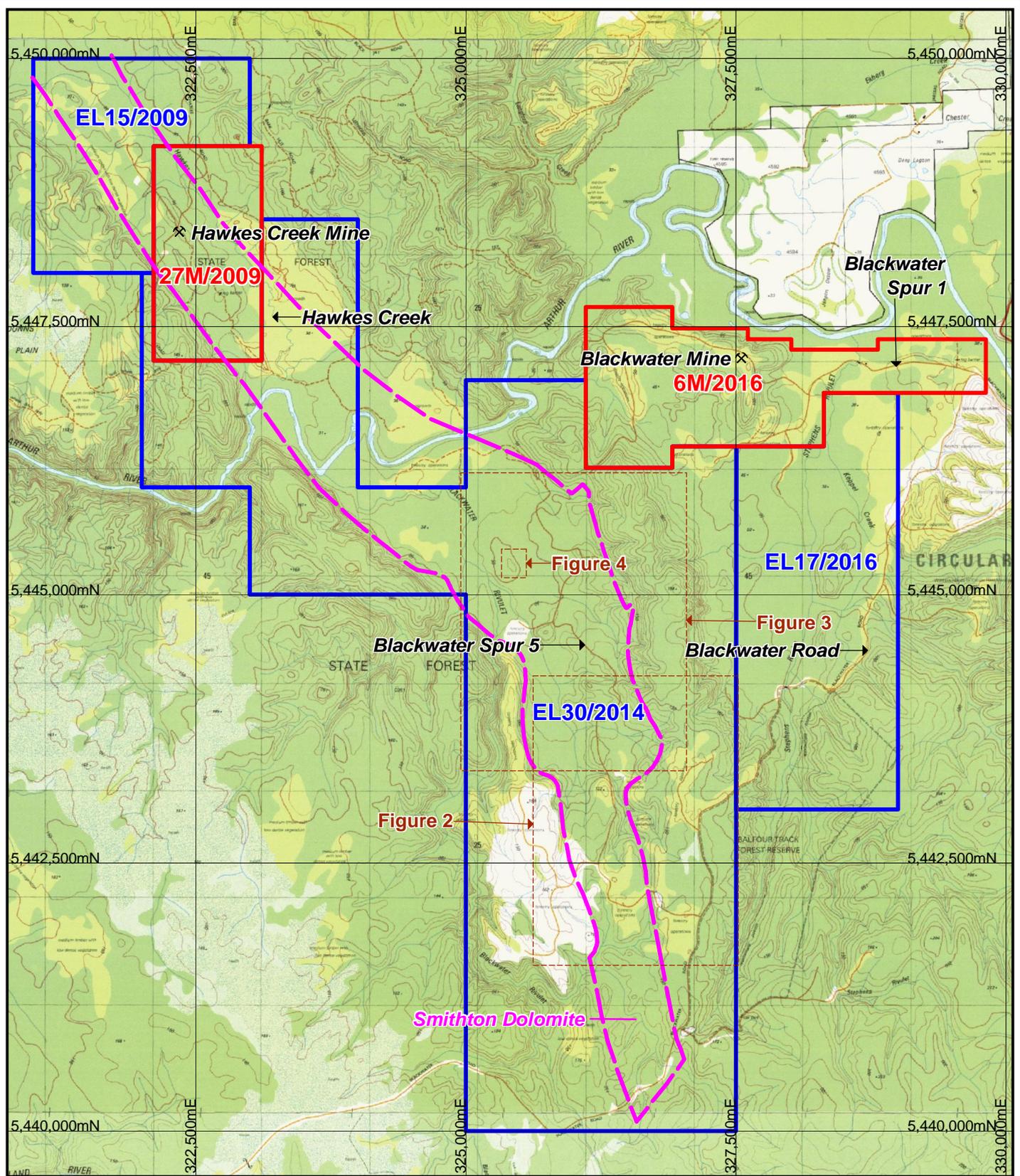
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EL302014-2017-05-SL\_1.xlsx

EL302014-2017-06-DG\_1.xlsx

EL302014-2017-07-DG\_1.xlsx

EL302014-2017-Filelisting.xlsx



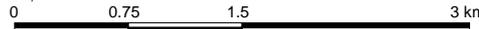
**LEGEND**

 Geological boundary inferred from MRT's Sumac 1:25,000 map

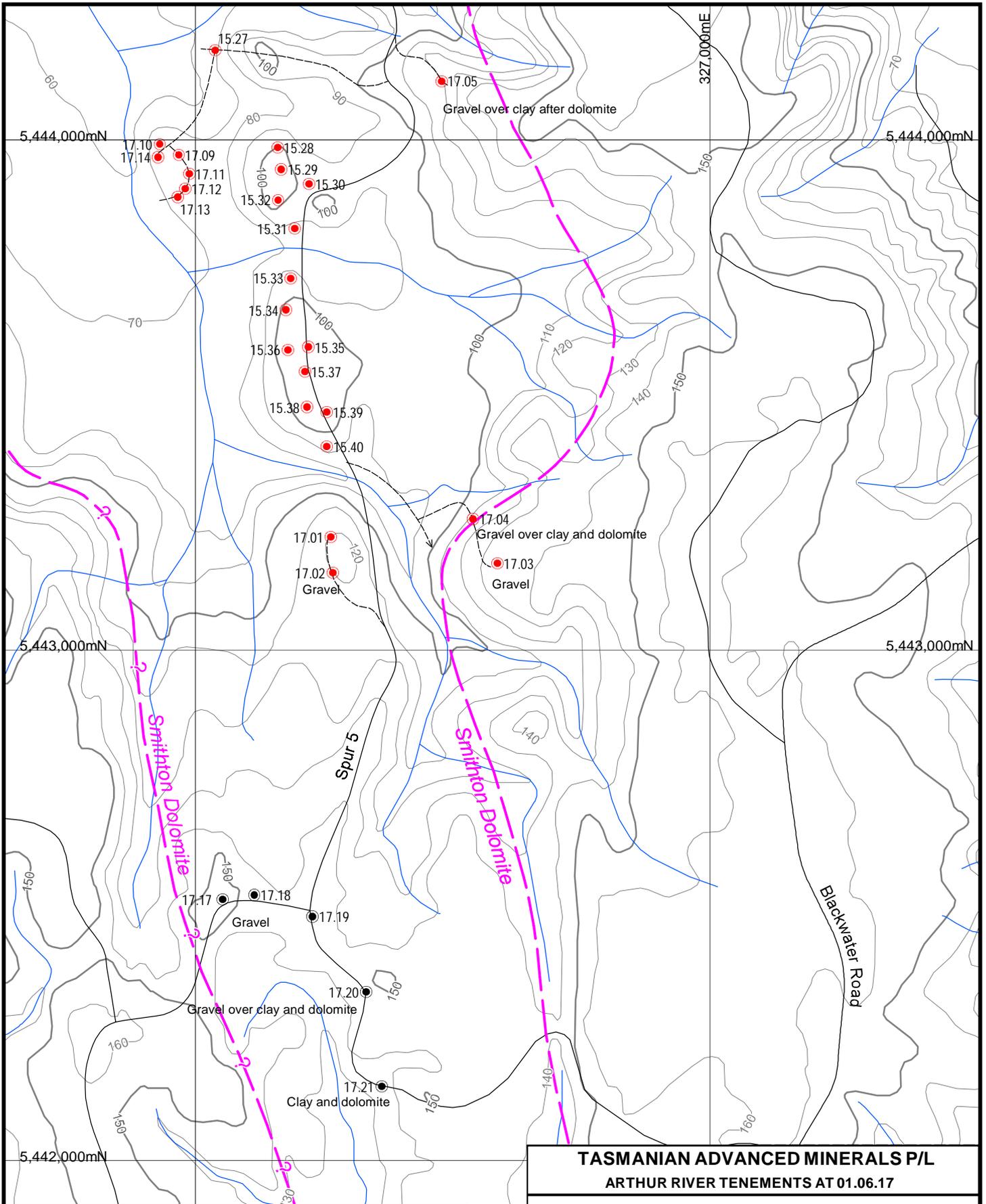
**TASMANIAN ADVANCED MINERALS P/L**  
ARTHUR RIVER TENEMENTS AT 01.06.17

**ML 27M/2009 and EL 15/2009 - HAWKES CREEK**  
**ML 6M/2016 - BLACKWATER**  
**EL 30/2014 - BLACKWATER RIVULET**  
**EL 17/2016 STEPHENS RIVULET**  
**LOCATION PLAN**

Compiled : Chris Stuart/Nic Turner	Drawn : DraftingWorks	Date : 01/06/2017	File : TAM-Tenements.wor
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Scale: 1:50,000	Projection: MGA Zone 55 (GDA94)	Figure No
		1

**N. J. Turner, Geologist**



**LEGEND**

- Rough track
- 15.35 Test Pits ATP15.35, ATP17.12
- 17.12
- 17.18 Auger hole AAH17.18
- Geological boundary inferred from MRT's Sumac 1:25,000 map

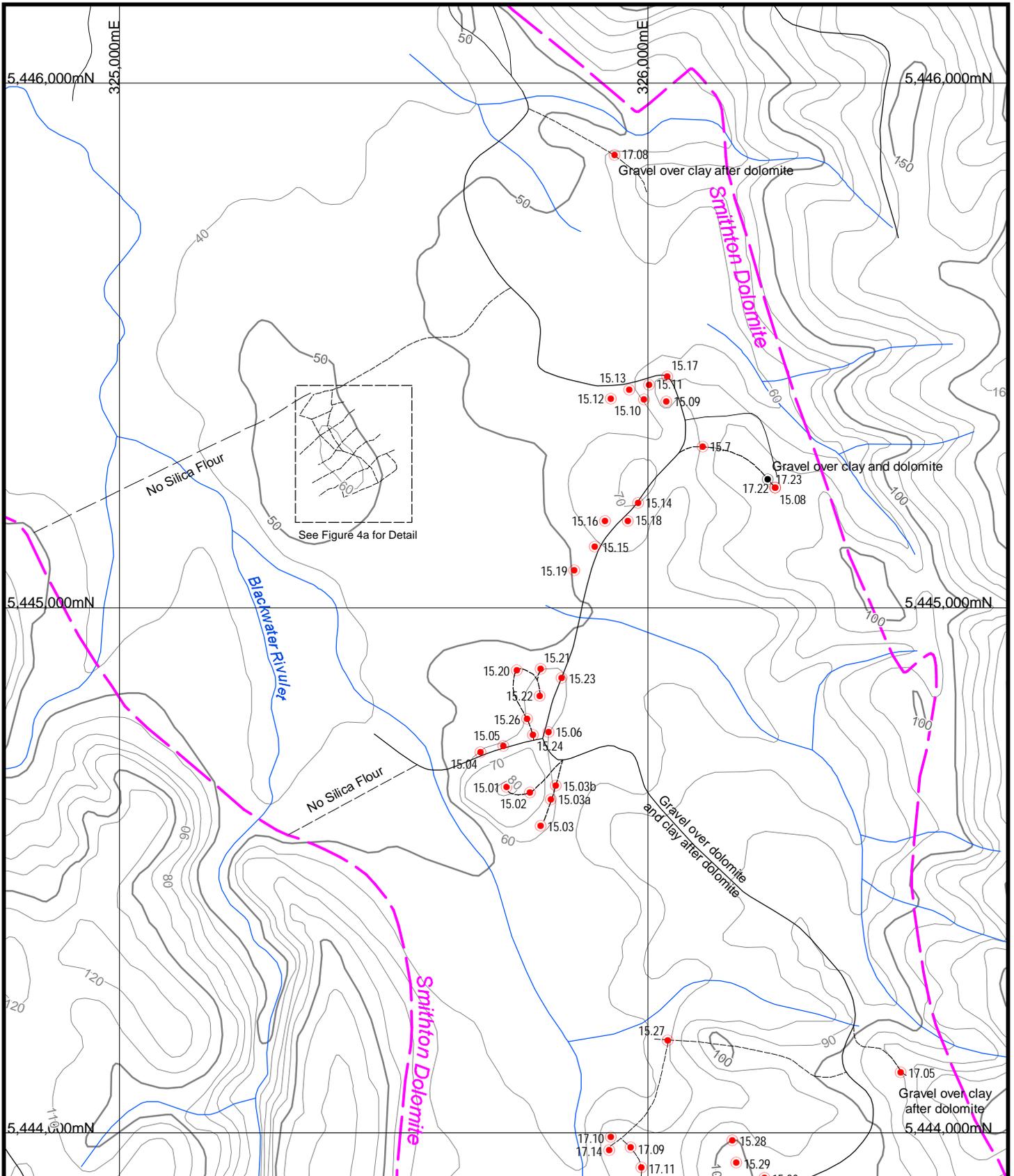
**TASMANIAN ADVANCED MINERALS P/L**  
**ARTHUR RIVER TENEMENTS AT 01.06.17**

**EL 30/2014 - BLACKWATER RIVULET**  
**NEAR BLACKWATER SPUR 5**  
**TEST PITS 2015 AND 2017**  
**AUGER HOLES 2017**

Compiled: Nic Turner	Drawn: DraftingWorks	Date: 01/06/17	File: BW-S5 T Pits 2017
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Scale: 1:10,000	Projection: MGA Zone 55 (GDA94)
0      125      250      500 m	Figure No <b>2</b>

**N. J. Turner, Geologist**



**LEGEND**

- Rough track
- Flagged line
- 15.35 Test Pits ATP15.35, ATP17.12
- 17.12
- 17.23 Auger hole AAH17.23
- Geological boundary inferred from MRT's Sumac 1:25,000 map

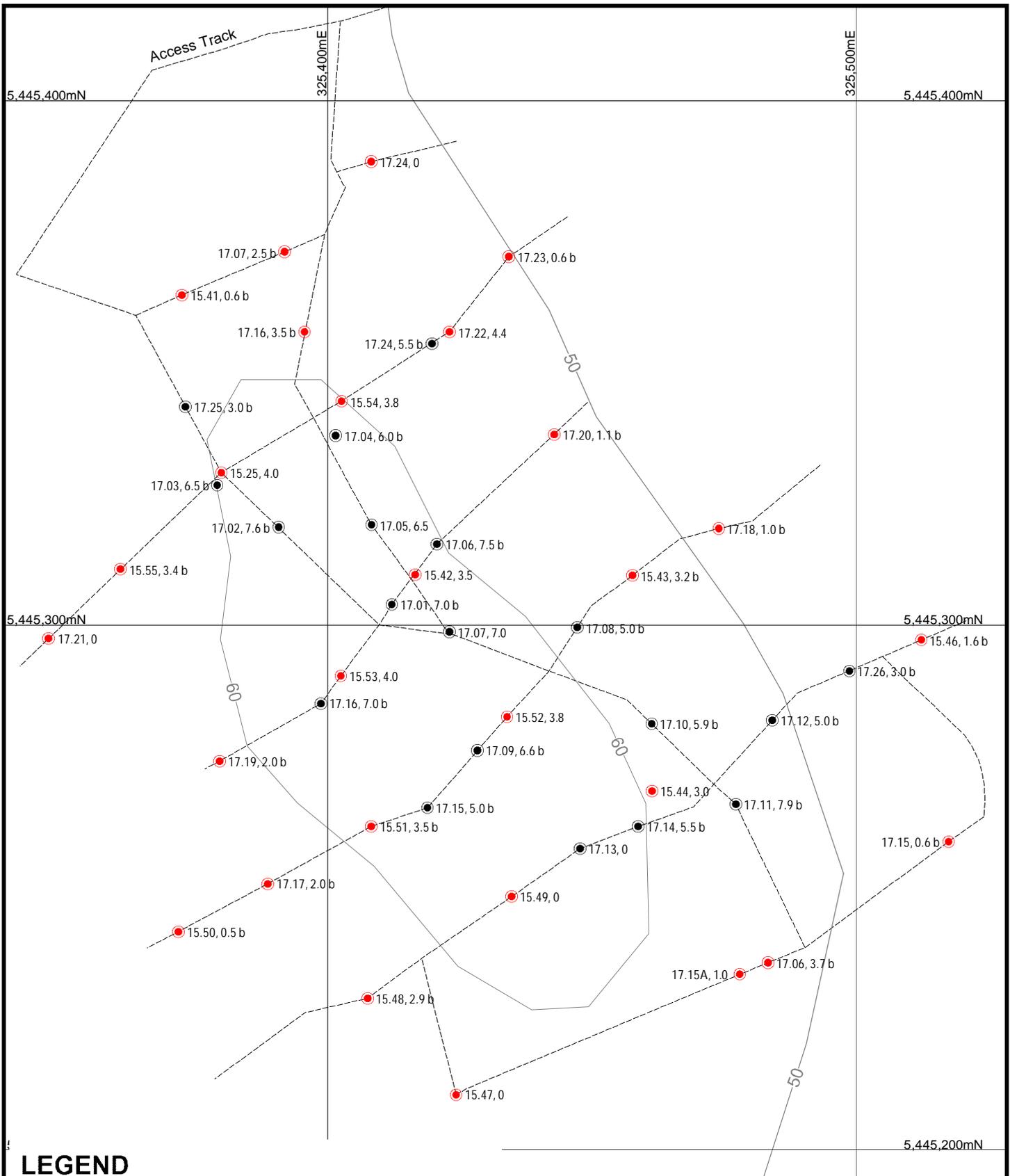
**TASMANIAN ADVANCED MINERALS P/L  
ARTHUR RIVER TENEMENTS AT 01.06.17**

**EL 30/2014 - BLACKWATER RIVULET  
NEAR BLACKWATER SPUR 5  
TEST PITS 2015 AND 2017  
AUGER HOLES 2017**

Compiled : Nic Turner	Drawn : DraftingWorks	Date : 01/06/17	File : BW-S5n Test Pits 2017
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Scale: 1:10,000	Projection: MGA Zone 55 (GDA94)	Figure No
0 125 250 500 m		3

**N. J. Turner, Geologist**



**LEGEND**

- Rough track
- 15.54, 3.8 Test pits (ATP) and number with thickness of pale silica flour
- 17.07, 2.5b
- 17.06, 7.5b Auger hole (AAH) and number with thickness of pale silica flour
- b Indicates the bottom of the pale silica flour was reached

Surveyed by compass and "chainman".  
 Matched to GDA94 grid using average of 7 GPS measurements at AAH17.04

<b>TASMANIAN ADVANCED MINERALS P/L</b>			
ARTHUR RIVER TENEMENTS AT 01.06.17			
<b>EL 30/2014 - BLACKWATER RIVULET</b>			
<b>'LITTLE HILL' WEST OF SPUR 5 NORTH</b>			
<b>TEST PITS 2015 AND 2017</b>			
<b>AUGER HOLES 2017</b>			
Compiled : Nic Turner	Drawn : DraftingWorks	Date : 01/06/17	File : LH PitsAuger 2017
Scale: 1:1000		Projection: MGA Zone 55 (GDA94)	
0      12.5      25      50 m		Figure No <b>4a</b>	
<b>N. J. Turner, Geologist</b>			

