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ASX RELEASE

15 October 2018



**40m @ 3.5g/t Au Confirmatory Intersection from  
60m Depth at Vanguard, Sandstone Gold Project, WA**

**HIGHLIGHTS**

- RC drilling confirms robust geological models at Vanguard and Tiger Moth. Intercepts into high grade zones include:
  - SRC114 (Vanguard) 40m @ 3.5 g/t Au from 60m
  - SRC115 (Tiger Moth) 8m @ 4.1 g/t Au from 52m
- Preliminary metallurgical testwork shows recovery of +92% gold from both oxide and primary gold zones
- Assay results from reconnaissance aircore (AC) drilling at Bulchina, Sandstone North and Vanguard Camp indicates potential for further shallow oxide gold mineralisation
- Step-out RC drilling at Indomitable Camp and Vanguard Camp deposits planned to test mineralised structures down dip/down plunge (*outside 2018 JORC [2012] Mineral Resources*)
- Maiden mineral resource estimation [*JORC 2012*] planned for Ladybird, Havilah and Sandstone North

Alto Metals Limited (ASX: AME) ("Alto", "the Company") is pleased to advise that assay results from 2 RC holes drilled in September at Vanguard and Tiger Moth to confirm the geological models and provide samples for preliminary metallurgical testwork have returned high recoveries and better than predicted grades.

Assay results received from reconnaissance aircore drilling at Bulchina, Sandstone North and Vanguard Camp indicates that these mineralised systems are still open, and further drilling is required.

Commenting on these results, Alto's Managing Director Dermot Ryan said:

***"Alto's recently published Mineral Resource estimate [JORC 2012] for the Indomitable and Vanguard Camps was the result of applying a systematic exploration approach. This process resulted in the selection and successful testing of a number of litho-structural gold targets.***

***The next stage is to step-out and drill test the down dip/down plunge extensions of these newly discovered mineralised structures and convert gold mineralisation into mineral resource."***

## REVERSE CIRCULATION DRILLING

During September, 4 shallow RC holes (total 356m) were drilled at Vanguard, Tiger Moth and Indomitable to provide samples for preliminary metallurgical testwork.

At Vanguard and Tiger Moth, RC holes SRC114 and SRC115 were drilled to 102m. At Indomitable, SRC116 and SRC117 were drilled but were abandoned prior to reaching the mineralised interval due to difficult drilling conditions. As a result, samples for preliminary metallurgical testwork at Indomitable were obtained from RC cuttings from drill hole SRC086 drilled in February 2018 by Alto. Assay results for SRC086 were previously released to the ASX on 20 March 2018 (refer ASX release 20 March 2018).

The +1.0g/t Au fire assay results for the 4m composite samples are shown in Figures 1 and 2 and in Table 1 below. All 4m composite samples +0.5g/t Au results are included in Appendix 1.

At Vanguard and Tiger Moth, the deeper and higher-grade gold intersections down plunge and external to the 2018 \$2,000/oz Whittle pit shells were not included in the 2018 Mineral Resource estimate and require follow up RC and diamond core drilling with a view to enlarging the pits.

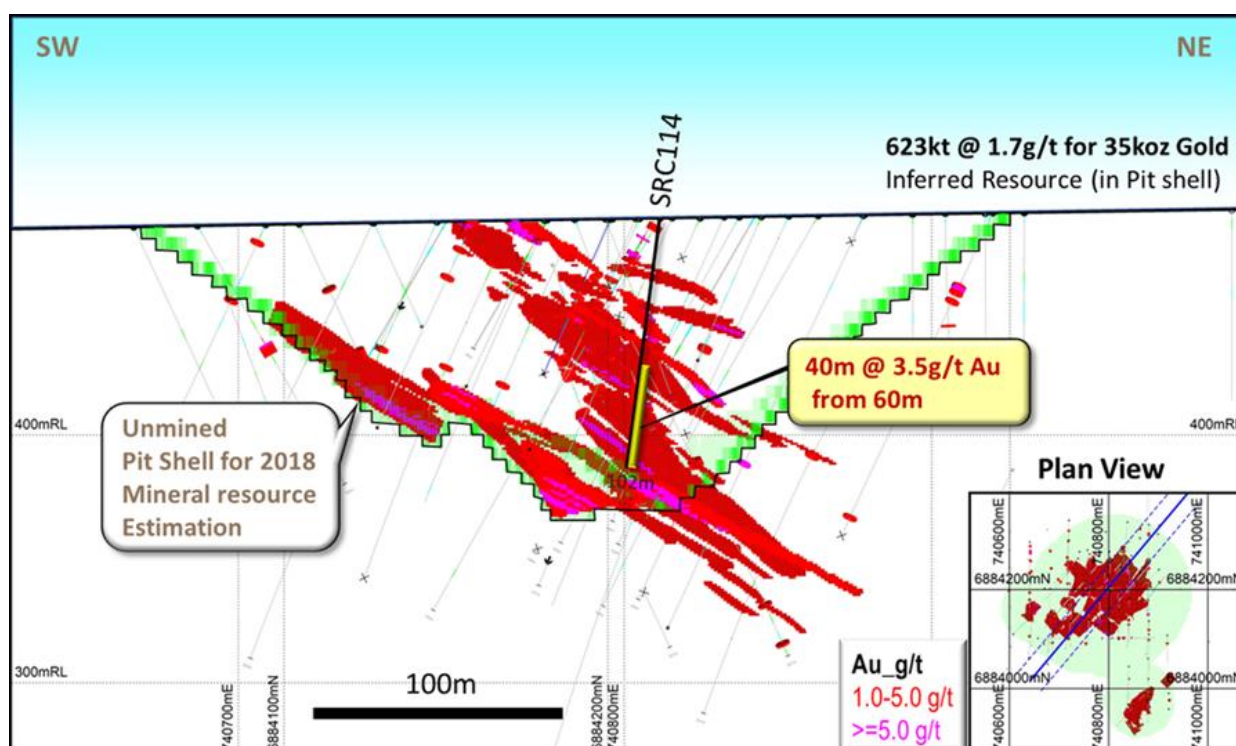
**Table 1. September 2018 RC Drilling, 4m RC Samples, Fire Assay Results +1.0g/t Au**

Hole ID	East GDA94	North GDA94	Depth (m)	Dip (deg)	Azimuth (deg)	From (m)	To (m)	Interval (m)	Grade (g/t Au)
SRC114	740807	6884218	102	-82	197	60	100	40	3.5
incl.						60	72	12	5.0
SRC115	733598	6891165	102	-62	0	52	60	8	4.1
SRC116	733259	6892252	68	-60	316	Hole abandoned, NSR			
SRC117	733254	6892255	84	-60	316	Hole abandoned, NSR			

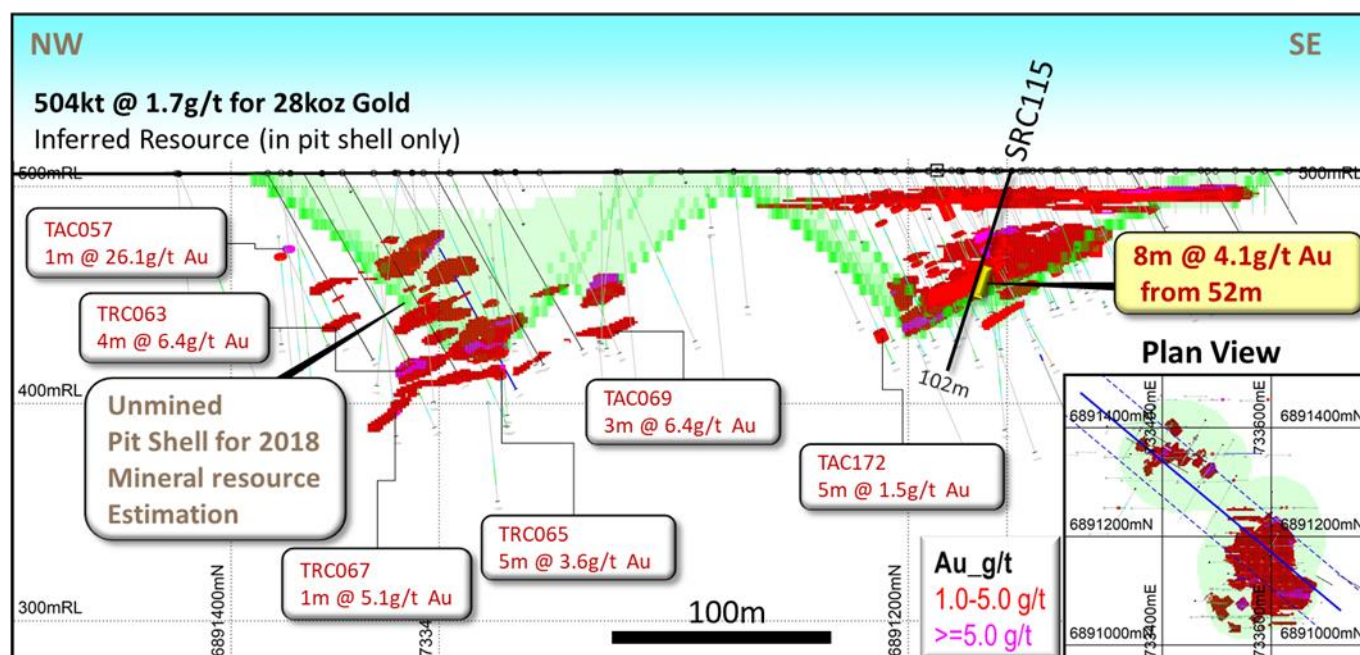
Exploration Licences E57/1031 & E57/1033

NSR: No significant result.

**Figure 1. Vanguard Section 40° NE (+/-30m) Showing A\$2,000/oz Whittle Pit Shell for 2018 Mineral Resource Estimation and Location of Subsequent Alto Hole SRC114**



**Figure 2. Tiger Moth Section Oriented 310° NW (+/-50m) Showing A\$2,000/oz Whittle Pit Shells for 2018 Mineral Resource Estimation and Location of Subsequent Alto RC Hole SRC115**



**Note:** White Labelled Intersections are OUTSIDE 2018 Pit Shell and not included in 2018 Mineral Resource Estimate

**References:** WAMEX 68574 for TAC172; WAMEX 66340 for all the other white labelled drill holes

## PRELIMINARY METALLURGICAL TESTWORK

The results of the limited metallurgical testwork to date indicate that there should be no issues with metallurgical recovery. However, further testwork is planned.

**Method:** 16 representative 10kg composite RC samples for preliminary metallurgical testwork were collected in the field using a PVC scoop from the 1m RC samples intervals.

At the Intertek Genalysis laboratory, the 10kg samples were dried and split to produce two almost identical "A" and "B" 5kg samples.

**Sample A** was crushed to 2mm and pulverised to 75µm followed by 50 gm Fire assay. (Method FA50/AA)

**Sample B** was pulverised (total 5kg) to nominal 106µm. A 1kg, 24 hour pH10 Accelerated Cyanide Leach test was then performed. Intertek's high grade cyanide leach utilises the LeachWELL™ accelerant to determine the cyanide extractable gold and provide an indication of potential recoveries in metallurgical processes and circuits. Recovery and analysis of the residues provide the option of reporting total gold values and thus determining the % of any refractory gold fraction.

The **leachate** (solution) was analysed by Inductively Coupled Plasma Mass Spectrometry (Method LW1000/CL\_W002, MS:ICP\_W003MS) with a detection limit of 0.01ppm. The **tail** (remaining solids) was filtered, washed, re-homogenised, pulverised and analysed by fire assay for Au. (Method FA50T/OE)

An estimate of gold recovery for the B sample was calculated as a percentage using the formula:

$$\text{Recovery (\%)} = \frac{\text{LW1000/MS}}{(\text{LW1000/MS} + \text{FA50T/OE})} \times 100$$

Preliminary metallurgical test results are shown in Table 2 overleaf.

**Note:** Check 50gm fire assays have also been completed on 3kg x 4m composite samples from holes SRC114 & SRC115 at MinAnalytical Laboratory Services. These results are shown in Appendix 1 of this report. 50gm fire assays for hole SRC086 were previously reported in AME ASX release 20 March 2018 Appendix 2.

**Table 2. Preliminary Metallurgical Testwork Results**

Deposit	Hole ID	From (m)	To (m)	Head Grade <sup>1</sup> (g/t Au)	Leach Grade <sup>2</sup> (g/t Au)	Tail Grade <sup>3</sup> (g/t Au)	Recovery (%)	Rock Type
Vanguard	SRC114	28	32	0.1	0.13	0.01	93%	Oxide
		80	84	4.45	4.16	0.21	95%	Fresh
		84	88	7.73	5.96	0.25	96%	Fresh
		88	92	0.96	0.78	0.12	87%	Fresh
		92	96	1.92	1.45	0.05	97%	Fresh
	Average						93%	Oxide
	Average						94%	Fresh
Tiger Moth	SRC115	32	36	0.14	0.17	0.01	94%	Oxide
		52	56	5.11	6.99	0.36	95%	Oxide
		56	60	2.7	2.6	0.21	93%	Oxide
		92	96	0.26	0.14	0.01	93%	Oxide
	Average						94%	Oxide
Indomitable	SRC086	30	32	0.46	0.43	0.05	90%	Oxide
		32	34	0.21	0.23	0.02	92%	Oxide
		34	36	1.81	1.15	0.08	93%	Oxide
		88	90	0.48	0.39	0.02	95%	Oxide
		90	92	2.11	2.54	0.18	93%	Oxide
		92	94	0.83	1.14	0.07	94%	Oxide
		94	96	2.01	2.29	0.13	95%	Oxide
	Average						93%	Oxide

**Footnotes:** 1: Grade by 50gm FA on "A" sample  
 2: Grade by Leachwell on "B" sample  
 3: Grade by 50gm FA on "B" sample tail

**Note:** The discrepancy between the head grade of Sample A vs Sample B Leach grade + Tail grade is likely due to the presence of coarse gold in the original 10kg sample, and Sample A and Sample B therefore not being entirely identical.

## **AIRCORE DRILLING**

Between May and June 2018, Alto completed 253 infill and/or extension aircore drill holes for a total of 12,175m over ten prospect areas at Sandstone.

Assays from around Vanguard and between Vanguard and Vanguard North and from shallow aircore drilling at Tiger Moth and Indomitable North (SAC121-230) were released to the ASX on 3 July and 17 and 18 September 2018.

The remaining assays from "reconnaissance aircore" holes SAC231 – 373 have now been received with significant results at Vanguard, Sandstone North and Bulchina North (discussed overleaf).

The +0.5g/t Au results from 4m composite samples are included in Appendix 2 and collar locations are included in Appendix 3.

## VANGUARD PROSPECT

Fire assays from 4m composite samples from the remaining Vanguard aircore holes have identified gold mineralised drill intercepts away from the main Vanguard and Vanguard North deposits. Further drilling is planned for Q1 2019.

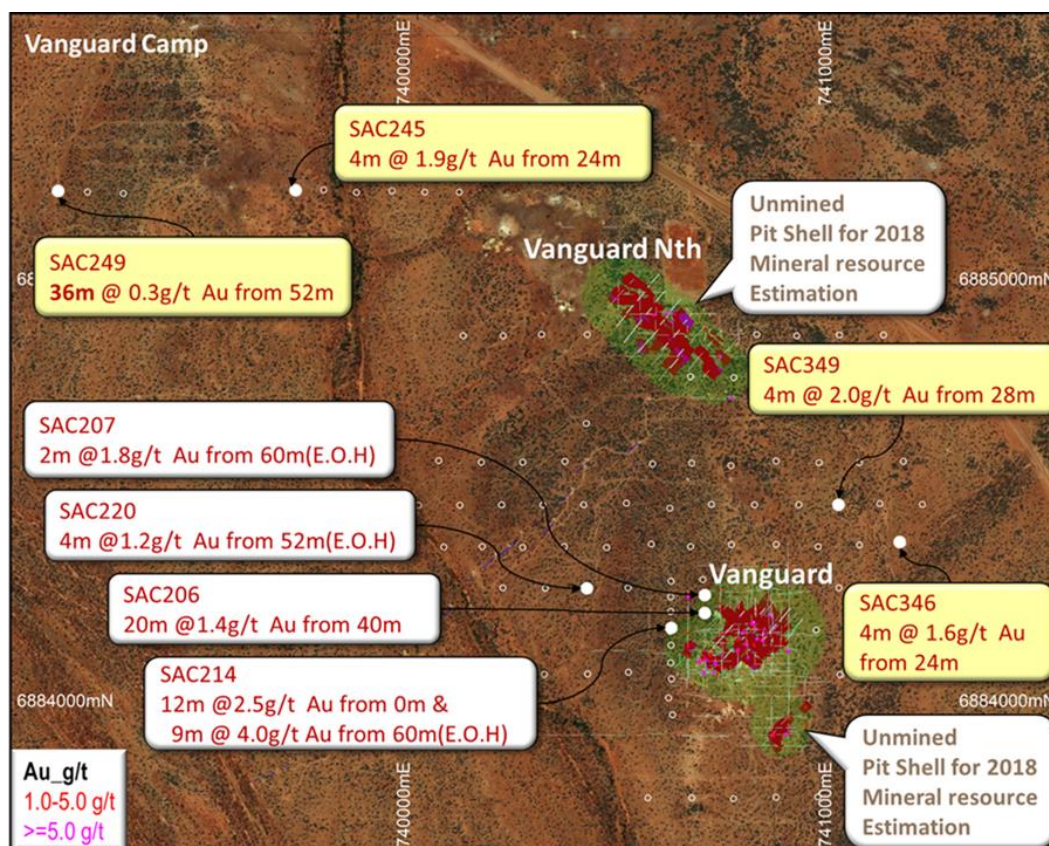
The +1.0g/t Au fire assay results from 4m composite samples are included in Table 3 below and are shown in Figure 3.

**Table 3. Vanguard 2018 Aircore Extension Program, 4m AC Samples, Fire Assay Results +1.0g/t Au**

Hole ID	East GDA94	North GDA94	Depth (m)	Dip (deg)	Azimuth (deg)	From (m)	To (m)	Interval (m)	Grade (g/t Au)
SAC206	740684	6884243	63	-90	0	40	60	20	1.36
SAC207	740682	6884278	62	-90	0	60	62	2	1.77
SAC214	740599	6884198	69	-90	0	0	12	12	2.47
and						16	20	4	1.58
and						60	69	9	4.03
SAC220	740403	6884298	71	-90	0	52	56	4	1.23
SAC245	739777	6885245	32	-90	0	24	28	4	1.90
SAC346	741150	6884406	56	-90	0	24	28	4	1.60
SAC349	740999	6884494	90	-90	0	28	32	4	2.0

**Footnote:** Results for holes SAC206, 207, 214, 220 were reported to the ASX on 3 July 2018 (white text boxes)  
For Figures 3 - 7 following, assay results in yellow text boxes are reported for first time.

**Figure 3. Image of Vanguard Deposits Showing the location of AC Holes from the last program with Vertical Plan Projection of Previous Drill Holes and Gold Values and MRE Block Models**



## SANDSTONE NORTH PROSPECT

A total of 13 angled AC holes (total 1,211m) were drilled on the southern and northern flanks of the Sandstone North prospect in June 2018.

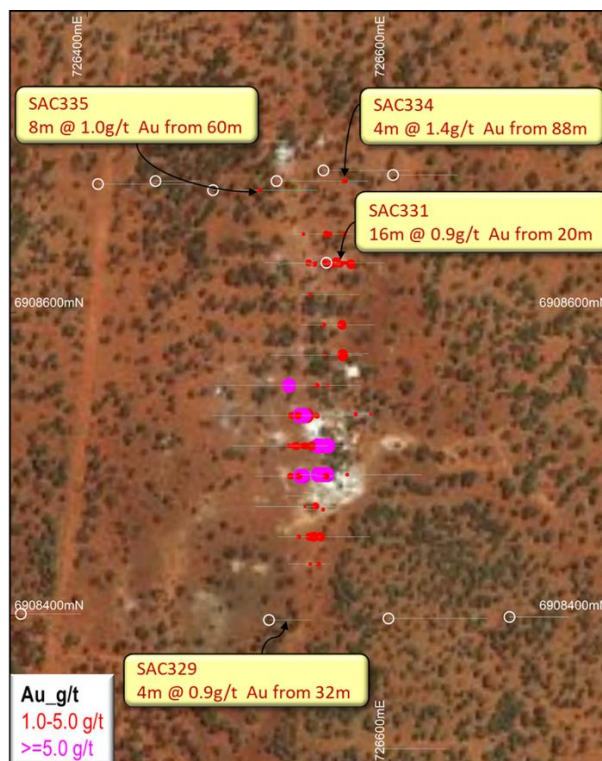
Fire assays from 4m composite samples from this drilling program suggest that the known mineralisation which extends over 300m of strike is open to both the north and the south.

Further drilling is planned for 2019.

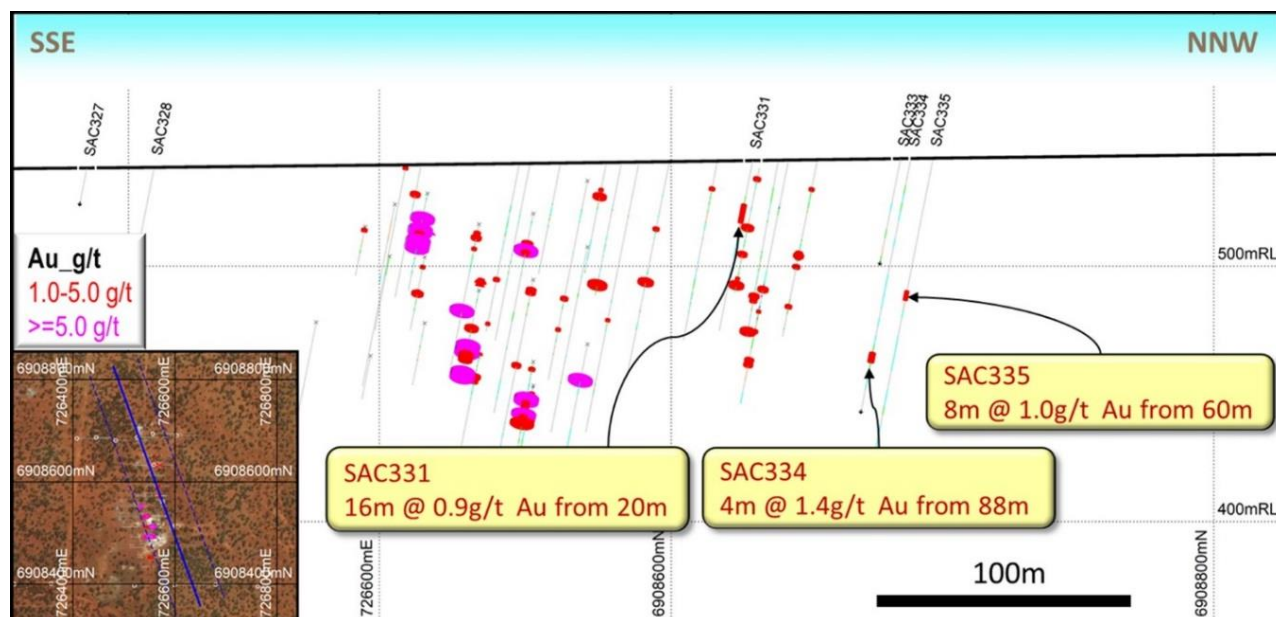
Refer Figure 4 for drill hole locations and Figure 5 for a longitudinal section of drill holes and intercepts.

Approximate +1.0g/t Au 4m composite fire assay results are included in Table 4.

**Figure 4. Sandstone North Image, Showing Historical Drilling and Alto's Aircore Drill Traverses**



**Figure 5. Sandstone North Prospect, Section Oriented 340° NW, +/-50m Window**



**Table 4. Sandstone North 2018 Aircore Program, 4m AC Samples, Fire Assay Results +1.0g/t Au**

Hole ID	East GDA94	North GDA94	Depth (m)	Dip (deg)	Azimuth (deg)	From (m)	To (m)	Interval (m)	Grade (g/t Au)
SAC331	726558	6908633	77	-60	090	4	20	16	0.9
SAC334	726525	6908687	121	-60	090	88	92	4	1.4
SAC335	726483	6908681	139	-60	090	60	68	8	1.0

## BULCHINA PROSPECT

A total of 14 angled AC holes (total 1,359m) were drilled adjacent to the northern edge of the Bulchina open pit in June 2018.

Fire assays from 4m composite samples from this drilling program have confirmed that further mineralisation exists outside of the existing open pit.

Further aircore drilling is planned for 2019. Refer Figure 6 below for hole locations and Figure 7 for a long section.

The +1.0g/t Au 4m composite fire assay results are included in Table 5.

Figure 6. Bulchina Image, Showing Historical Drilling and Alto's Aircore Drill Traverses

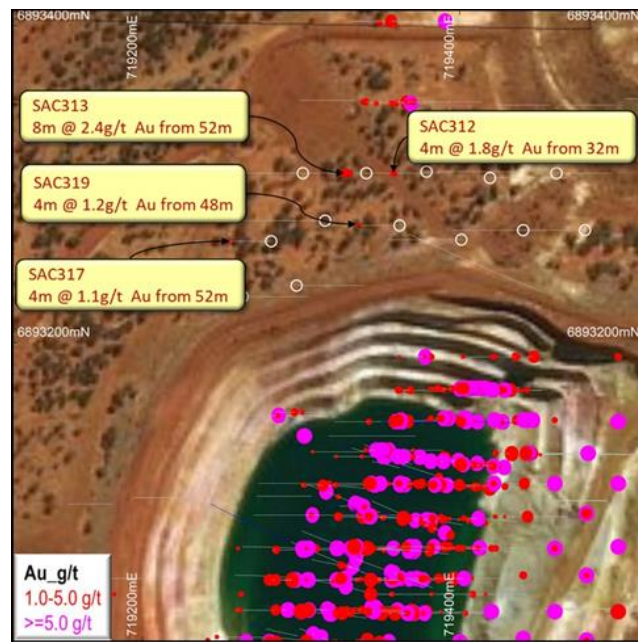


Figure 7. Bulchina North Prospect, Section Oriented 020° NNE, +/-30m Window

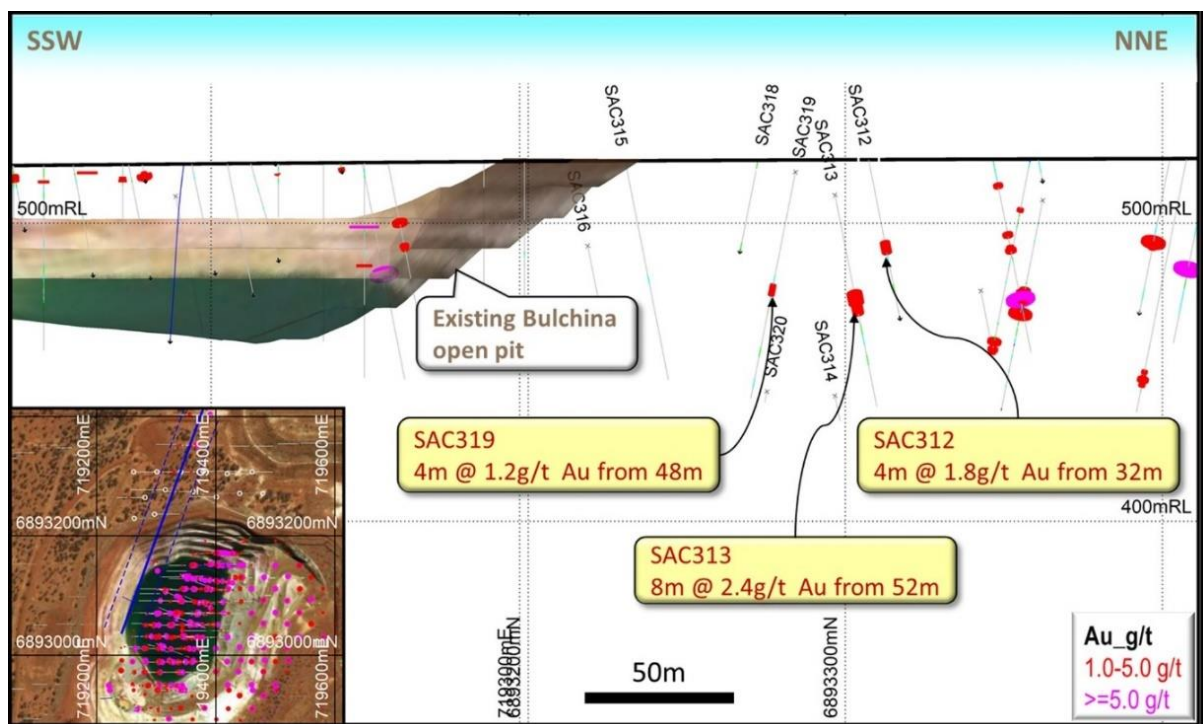


Table 5. Bulchina North 2018 Aircore Program, 4m AC Samples, Fire Assay Results +1.0g/t Au

Hole ID	East GDA94	North GDA94	Depth (m)	Dip (deg)	Azimuth (deg)	From (m)	To (m)	Interval (m)	Grade (g/t Au)
SAC312	719341	6893307	92	-60	090	32	36	4	1.8
SAC313	719301	6893307	96	-60	090	52	60	8	2.4
SAC319	719362	6893274	92	-60	270	48	52	4	1.2

## **FORWARD EXPLORATION PLANS Q4 2018 - 2019**

The forward exploration plan will build on the work completed over the past 24 months and will include:

- RC and diamond core drilling at Vanguard Camp and Indomitable Camp deposits to define the extent of the mineralised structures
- AC drill testing of soil and laterite gold geochemical anomalies

The Company will also progress its resource evaluation work with:

- Maiden mineral resource estimation (JORC 2012) for Ladybird, Havilah and Sandstone North using existing available data
- Update to the Company's JORC 2012 Mineral Resource inventory
- Geotechnical drilling, bulk density measurements and metallurgical testwork where required to convert gold mineralisation into mineral resource

## **ABOUT ALTO AND THE SANDSTONE GOLD PROJECT**

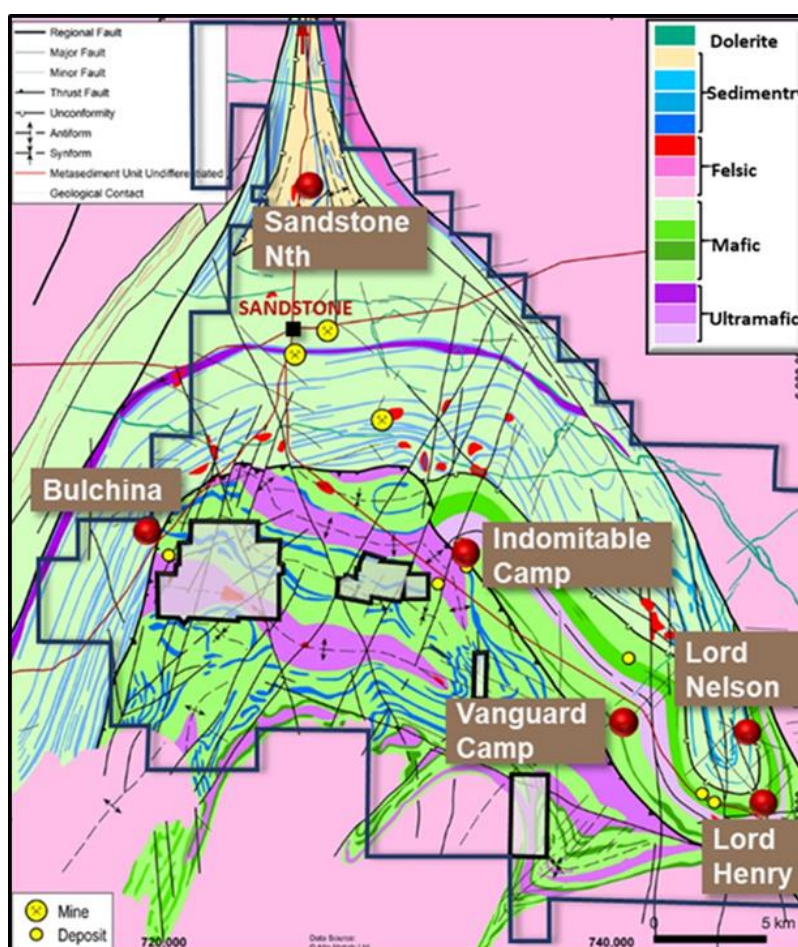
Alto holds ~800km<sup>2</sup> of the prospective Archaean Sandstone Goldfield, 600km north of Perth in the East Murchison Mineral Field of Western Australia.

Since acquiring the Project in June 2016, Alto has compiled and reviewed a large legacy database ahead of a series of focused exploration and drilling campaigns which commenced in late-2016.

Alto's goal is the delineation of a +1 million-ounce JORC 2012 Mineral Resource that could become the basis for a re-establishment of standalone oxide and primary gold mining and milling operations at the Project.

However, it is possible that in the short term, some of the existing open pit deposits may be amenable to treatment in a third party's operating plant.

**Figure 8. Sandstone Geology Plan showing Alto Prospects and Landholdings**



**ALTO'S SANDSTONE 2018 MINERAL RESOURCE INVENTORY****Table 6. Sandstone Gold Project – Summary of Total Mineral Resources (JORC 2012)**

Deposit	Classification	Cut-off Grade (g/t Au)	Tonnage (Kt)	Grade (g/t Au)	Contained Gold (oz)
Lord Henry <sup>1</sup>	Indicated	0.8	1,200	1.6	65,000
<b>TOTAL INDICATED</b>			<b>1,200</b>	<b>1.6</b>	<b>65,000</b>
Lord Henry <sup>1</sup>	Inferred	0.8	110	1.3	4,000
Lord Nelson <sup>2</sup>	Inferred	0.8	980	2.2	68,000
Indomitable Camp <sup>3</sup>	Inferred	0.5	1,730	1.3	74,000
Vanguard Camp <sup>3</sup>	Inferred	0.5	850	1.8	50,000
<b>TOTAL INFERRED</b>			<b>3,670</b>	<b>1.7</b>	<b>196,000</b>
<b>TOTAL INDICATED &amp; INFERRED<sup>4</sup></b>			<b>4,870</b>	<b>1.7</b>	<b>261,000</b>

**Footnote 1:** AME ASX Release 16 May 2017. "Maiden Lord Henry JORC 2012 Mineral Resource of 69,000oz."

**Footnote 2:** AME ASX Release 28 April 2017. "Lord Nelson Mineral Resource Increased to 68,000oz."

**Footnote 3:** AME ASX Release 25 September 2018. "Maiden Gold Resource at Indomitable and Vanguard Camps, Sandstone WA"

**Footnote 4:** For reporting purposes, Table 6 totals have been rounded. Rounding may result in some slight discrepancies in totals reported

**All material assumptions and technical parameters underpinning the 2017 and 2018 JORC (2012) Mineral Resource estimates in the above ASX announcements continue to apply and have not materially changed since last reported.**

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**Competent Person Statement**

The information in this Report that relates to Exploration Results is based on information compiled by Mr Dermot Ryan, who is an employee of XServ Pty Ltd and a Director and security holder of the Company. Mr Ryan is a Fellow of the Australasian Institute of Mining and Metallurgy (CP Geology) and has sufficient experience of relevance to the styles of mineralisation and the types of deposits under consideration, and to the activities undertaken, to qualify as a Competent Person as defined in the 2012 Edition of the Joint Ore Reserves Committee (JORC) Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves.

Historic exploration results referred to in this Report were previously reported by Troy Resources NL pursuant to JORC Code 2004. Alto Metals Limited understands that this information has not been updated since to comply with the JORC Code 2012, but believes the information has not materially changed since it was last reported.

**Forward Looking Statements**

Certain statements in this document are or maybe "forward-looking statements" and represent Alto's intentions, projections, expectations or beliefs concerning among other things, future exploration activities. The projections, estimates and beliefs contained in such forward-looking statements don't necessarily involve known and unknown risks, uncertainties and other factors, many of which are beyond the control of Alto, and which may cause Alto's actual performance in future periods to differ materially from any express or implied estimates or projections. Nothing in this document is a promise or representation as to the future. Statements or assumptions in this document as to future matters may prove to be incorrect and differences may be material. Alto does not make any representation or warranty as to the accuracy of such statements or assumptions.

**APPENDIX 1. Alto September 2018 RC Drilling, 4m RC Sample, Fire Assay Results +0.5g/t Au**

Hole ID	East GDA94	North GDA94	Depth (m)	Dip (deg)	Azimuth (deg)	From (m)	To (m)	Interval (m)	Grade (g/t Au)
SRC114	740807	6884218	102	-82	197	20	28	8	0.75
and						60	100	40	3.48
incl						60	64	4	7.19
and						64	68	4	3.11
and						68	72	4	4.76
and						72	76	4	3.75
and						76	80	4	3.19
and						80	84	4	4.15
and						84	88	4	3.05
and						88	92	4	0.95
and						92	96	4	1.07
and						96	100	4	3.58
SRC115	733598	6891165	102	-62	0	8	16	8	0.84
incl						12	16	4	1.06
and						24	28	4	0.25
and						52	60	8	4.14
incl						56	60	4	5.46
SRC117	733254	6892255	84	-60	316	16	24	8	0.82
and						60	64	4	0.91

*Holes drilled in Exploration Licences E57/1031, E57/1033 Co-ords in GDA94*

**APPENDIX 2. Alto 2018 AC Drilling, 4m AC Sample, Fire Assay Results +0.5g/t Au**

Hole ID	East GDA94	North GDA94	Depth (m)	Dip (deg)	Azimuth (deg)	From (m)	To (m)	Interval (m)	Grade (g/t Au)
SAC237	740804	6884902	69	-90	0	4	8	4	0.60
SAC245	739777	6885245	32	-90	0	24	28	4	1.91
SAC309	733203	6893362	79	-60	90	72	76	4	0.98
SAC312	719341	6893307	92	-60	90	32	36	4	1.78
SAC313	719301	6893307	96	-60	90	52	60	8	2.36
SAC317	719281	6893264	96	-60	270	52	56	4	1.07
SAC319	719362	6893274	92	-60	270	48	52	4	1.15
and						56	60	4	0.58
SAC329	726520	6908397	57	-60	90	32	36	4	0.88
SAC331	726558	6908633	77	-60	90	20	36	16	0.92
SAC333	726556	6908694	114	-60	90	40	44	4	0.51
SAC334	726525	6908687	121	-60	90	88	92	4	1.40
SAC335	726483	6908681	139	-60	90	60	68	8	0.98
and						136	139	3	0.97
SAC346	741150	6884406	56	-90	0	24	28	4	1.60
SAC349	740999	6884494	90	-90	0	28	32	4	2.02
SAC350	740904	6884498	108	-90	0	40	44	4	0.63
SAC370	740743	6884591	109	-90	0	80	84	4	0.51
SAC372	740557	6884595	90	-90	0	88	90	2	0.53

*Holes drilled in Exploration Licences E57/1029, E57/1030, E57/1031, E57/1033 Co-ords in GDA94*

## APPENDIX 3. Alto 2018 AC Drilling, Drill Hole Collar File

Hole ID	East	North	Depth (m)	Dip (deg)	Azi (deg)
SAC231	739939	6885243	29	-90	0
SAC232	739855	6885239	33	-90	0
SAC233	740349	6884601	78	-90	0
SAC234	740249	6884599	67	-90	0
SAC235	740151	6884599	42	-90	0
SAC236	740050	6884603	47	-90	0
SAC237	740804	6884902	69	-90	0
SAC238	740899	6884899	64	-90	0
SAC239	741000	6884901	68	-90	0
SAC240	741105	6884901	74	-90	0
SAC241	740957	6884799	43	-90	0
SAC242	740852	6884802	59	-90	0
SAC243	740750	6884800	58	-90	0
SAC244	740647	6884802	81	-90	0
SAC245	739777	6885245	32	-90	0
SAC246	739705	6885244	44	-90	0
SAC247	739302	6885237	48	-90	0
SAC248	739217	6885240	78	-90	0
SAC249	739140	6885241	90	-90	0
SAC250	744594	6880924	7	-90	0
SAC251	744601	6881002	10	-90	0
SAC252	744599	6881081	7	-90	0
SAC253	744599	6881163	4	-90	0
SAC254	744598	6881240	4	-90	0
SAC255	744601	6881325	4	-90	0
SAC256	744601	6881399	4	-90	0
SAC257	744603	6881488	10	-90	0
SAC258	744600	6881564	15	-90	0
SAC259	744598	6881642	16	-90	0
SAC260	744600	6881725	22	-90	0
SAC261	744599	6881803	15	-90	0
SAC262	733256	6893362	57	-60	90
SAC263	733698	6893438	120	-60	90
SAC264	733743	6893539	81	-60	90
SAC265	733654	6893550	108	-60	90
SAC266	746751	6880206	10	-90	0
SAC267	746853	6880194	13	-90	0
SAC268	746945	6880200	25	-90	0
SAC269	747043	6880205	46	-90	0
SAC270	747149	6880200	30	-90	0
SAC271	745400	6880822	13	-90	0
SAC272	745374	6880901	12	-90	0
SAC273	745357	6880975	4	-90	0
SAC274	745395	6881060	4	-90	0
SAC275	745430	6881141	4	-90	0
SAC276	745416	6881221	4	-90	0
SAC277	745419	6881301	4	-90	0
SAC278	745455	6881378	4	-90	0
SAC279	745418	6881452	4	-90	0
SAC280	745417	6881536	4	-90	0

Hole ID	East	North	Depth (m)	Dip (deg)	Azi (deg)
SAC281	745418	6881618	4	-90	0
SAC282	745412	6881700	4	-90	0
SAC283	746036	6880758	46	-90	0
SAC284	746045	6880841	22	-90	0
SAC285	746050	6880919	13	-90	0
SAC286	746040	6881005	10	-90	0
SAC287	746039	6881078	7	-90	0
SAC288	746046	6881160	4	-90	0
SAC289	746084	6881242	16	-90	0
SAC290	746153	6881322	13	-90	0
SAC291	746208	6881403	16	-90	0
SAC292	746211	6881483	11	-90	0
SAC293	746175	6881562	7	-90	0
SAC294	746120	6881644	13	-90	0
SAC295	742482	6882201	19	-90	0
SAC296	742397	6882202	39	-90	0
SAC297	742314	6882205	39	-90	0
SAC298	742401	6882601	54	-90	0
SAC299	742321	6882606	56	-90	0
SAC300	742484	6882594	47	-90	0
SAC301	743098	6883047	42	-90	0
SAC302	743007	6883051	53	-90	0
SAC303	742904	6883044	51	-90	0
SAC304	742800	6883032	42	-90	0
SAC305	742700	6883050	48	-90	0
SAC306	733284	6893362	52	-60	90
SAC307	733622	6893764	120	-60	90
SAC308	719461	6893307	70	-60	90
SAC309	733203	6893362	79	-60	90
SAC310	719419	6893304	99	-60	90
SAC311	719379	6893308	114	-60	90
SAC312	719341	6893307	92	-60	90
SAC313	719301	6893307	96	-60	90
SAC314	719262	6893307	102	-60	90
SAC315	719297	6893236	85	-60	90
SAC316	719263	6893229	82	-60	90
SAC317	719281	6893264	96	-60	270
SAC318	719315	6893277	117	-60	270
SAC319	719362	6893274	92	-60	270
SAC320	719401	6893265	93	-60	270
SAC321	719440	6893271	89	-60	270
SAC322	719479	6893271	132	-60	270
SAC323	726407	6908685	126	-60	90
SAC324	726356	6908401	79	-60	90
SAC325	726284	6908400	105	-60	90
SAC326	726762	6908395	75	-60	90
SAC327	726679	6908399	79	-60	90
SAC328	726599	6908398	131	-60	90
SAC329	726520	6908397	57	-60	90
SAC330	726443	6908400	90	-60	90

## APPENDIX 3. Alto 2018 AC Drilling, Drill Hole Collar File (Cont'd)

Hole ID	East	North	Depth (m)	Dip (deg)	Azi (deg)
SAC281	745418	6881618	4	-90	0
SAC282	745412	6881700	4	-90	0
SAC283	746036	6880758	46	-90	0
SAC284	746045	6880841	22	-90	0
SAC285	746050	6880919	13	-90	0
SAC286	746040	6881005	10	-90	0
SAC287	746039	6881078	7	-90	0
SAC288	746046	6881160	4	-90	0
SAC289	746084	6881242	16	-90	0
SAC290	746153	6881322	13	-90	0
SAC291	746208	6881403	16	-90	0
SAC292	746211	6881483	11	-90	0
SAC293	746175	6881562	7	-90	0
SAC294	746120	6881644	13	-90	0
SAC295	742482	6882201	19	-90	0
SAC296	742397	6882202	39	-90	0
SAC297	742314	6882205	39	-90	0
SAC298	742401	6882601	54	-90	0
SAC299	742321	6882606	56	-90	0
SAC300	742484	6882594	47	-90	0
SAC301	743098	6883047	42	-90	0
SAC302	743007	6883051	53	-90	0
SAC303	742904	6883044	51	-90	0
SAC304	742800	6883032	42	-90	0
SAC305	742700	6883050	48	-90	0
SAC306	733284	6893362	52	-60	90
SAC307	733622	6893764	120	-60	90
SAC308	719461	6893307	70	-60	90
SAC309	733203	6893362	79	-60	90
SAC310	719419	6893304	99	-60	90
SAC311	719379	6893308	114	-60	90
SAC312	719341	6893307	92	-60	90
SAC313	719301	6893307	96	-60	90
SAC314	719262	6893307	102	-60	90
SAC315	719297	6893236	85	-60	90
SAC316	719263	6893229	82	-60	90
SAC317	719281	6893264	96	-60	270
SAC318	719315	6893277	117	-60	270
SAC319	719362	6893274	92	-60	270
SAC320	719401	6893265	93	-60	270
SAC321	719440	6893271	89	-60	270
SAC322	719479	6893271	132	-60	270
SAC323	726407	6908685	126	-60	90
SAC324	726356	6908401	79	-60	90
SAC325	726284	6908400	105	-60	90
SAC326	726762	6908395	75	-60	90

Hole ID	East	North	Depth (m)	Dip (deg)	Azi (deg)
SAC327	726679	6908399	79	-60	90
SAC328	726599	6908398	131	-60	90
SAC329	726520	6908397	57	-60	90
SAC330	726443	6908400	90	-60	90
SAC331	726558	6908633	77	-60	90
SAC332	726602	6908691	85	-60	90
SAC333	726556	6908694	114	-60	90
SAC334	726525	6908687	121	-60	90
SAC336	726445	6908687	59	-60	90
SAC337	740062	6884398	120	-90	0
SAC338	740153	6884399	150	-90	0
SAC339	740249	6884397	150	-90	0
SAC340	740348	6884399	96	-90	0
SAC341	740448	6884397	72	-90	0
SAC342	740744	6884404	118	-90	0
SAC343	740850	6884404	78	-90	0
SAC344	740950	6884399	77	-90	0
SAC345	741048	6884403	82	-90	0
SAC346	741150	6884406	56	-90	0
SAC347	741197	6884499	117	-90	0
SAC348	741096	6884501	73	-90	0
SAC349	740999	6884494	90	-90	0
SAC350	740904	6884498	108	-90	0
SAC351	740799	6884498	126	-90	0
SAC352	740850	6884602	82	-90	0
SAC353	740952	6884598	90	-90	0
SAC354	741047	6884598	51	-90	0
SAC355	741152	6884601	75	-90	0
SAC356	740999	6884301	56	-90	0
SAC357	741101	6884297	84	-90	0
SAC358	741052	6884200	104	-90	0
SAC359	740945	6884201	66	-90	0
SAC360	740002	6884497	58	-90	0
SAC361	740100	6884497	54	-90	0
SAC362	740199	6884498	63	-90	0
SAC363	740297	6884498	66	-90	0
SAC364	740394	6884498	90	-90	0
SAC365	740495	6884502	104	-90	0
SAC366	740598	6884490	90	-90	0
SAC367	740554	6884405	88	-90	0
SAC368	740647	6884399	128	-90	0
SAC369	740697	6884499	129	-90	0
SAC370	740743	6884591	109	-90	0
SAC371	740650	6884597	132	-90	0
SAC372	740557	6884595	90	-90	0
SAC373	740400	6884691	94	-90	0

Holes drilled in Exploration Licences E57/1029, E57/1030, E57/1031, E57/1033 Co-ords in GDA94

## JORC 2012 TABLE 1 REPORT SANDSTONE PROJECT

### SECTION 1 - Sampling Techniques and Data

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

Criteria	Commentary
Sampling techniques	<ul style="list-style-type: none"> <li>Air Core (AC) samples were passed through a cross-over sub, and whole samples were collected at 1m intervals and placed on the ground in rows of ten. Wet AC samples were collected into poly-weave bags at 1m intervals.</li> <li>From the bulk sample, a 4m composite sample was collected using a split PVC scoop and then submitted to the laboratory for analysis.</li> <li>Reverse Circulation (RC) samples were passed directly from the in-line cyclone through a rig mounted cone splitter. Samples were collected in 1m intervals into bulk plastic bags and 1m calico splits (which were retained for later use).</li> <li>From the bulk sample, a 4 metre composite sample was collected using a split PVC scoop and then submitted to the laboratory for analysis.</li> <li>RC 1m splits were submitted to the laboratory if the composite sample assay values are equal to or greater than 0.2g/t Au.</li> <li>Samples for preliminary metallurgical testwork comprised 10kg composite samples collected using split pvc from the 1m RC intervals.</li> </ul>
Drilling techniques	<ul style="list-style-type: none"> <li>AC drilling with Drill Boss 200 rig with depth capacity of 150m, with a blade bit producing a sample of 85mm diameter and a down hole hammer bit producing a sample of 96mm diameter.</li> <li>RC drilling was with a KWL 350 drill rig with an onboard 1100/350 compressor using a sampling hammer of nominal 140mm hole.</li> </ul>
Drill sample recovery	<ul style="list-style-type: none"> <li>AC drilling generally had good recovery. The AC drilling included some wet samples near the bottom of hole.</li> <li>RC samples generally had good recovery.</li> <li>Recovery was estimated as a percentage and recorded on field sheets prior to entry into the database.</li> </ul>
Logging	<ul style="list-style-type: none"> <li>AC and RC drill chips were sieved from each 1m sample and geologically logged.</li> <li>Washed drill chips from each 1m sample were stored in chip trays and photographed.</li> <li>Geological logging of drill hole intervals was carried out with sufficient detail to meet the requirements of resource estimation.</li> </ul>
Subsampling techniques and sample preparation	<p><b>MinAnalytical Laboratory</b></p> <ul style="list-style-type: none"> <li>MinAnalytical Laboratory Services Australia Pty Ltd located in Canning Vale, Western Australia, were responsible for sample preparation and assaying for drill hole samples and associated check assays. MinAnalytical is certified to NATA in accordance with ISO 17025:2005 ISO requirements for all related inspection, verification, testing and certification activities.</li> <li>3kg 4m composite AC and RC samples were dried and then ground in an LM5 ring mill for 85% passing 75 Microns.</li> <li>Subsequently, intervals of 4m composite samples reporting greater than 0.2g/t Au were selected for re-assay, and 1m re-split samples were submitted for 50gm fire assay.</li> <li>AC and RC 1m samples were analysed using 50 gm fire assay with AAS finish.</li> </ul> <p><b>Intertek Genalysis Laboratory</b></p> <ul style="list-style-type: none"> <li>Intertek Genalysis Laboratory, located in Maddington, Western Australia, were responsible for sample preparation and assaying for RC drill hole samples and associated check assays for the samples submitted for preliminary metallurgical testwork.</li> <li>The 10kg samples for preliminary metallurgical testwork were dried and split into two equal</li> </ul>

Criteria	Commentary
	<p>5kg portions labelled "A" and "B".</p> <ul style="list-style-type: none"> <li>Sample A was crushed to 2mm, a split was taken and pulverised to 75um followed by 50gm fire assay for gold (Intertek Genalysis method code FA50/AA).</li> <li>Sample B was pulverised to nominal 90% passing 106um. A 1kg split was analysed by 24 hour pH10 cyanide leach (Accelerated Cyanide Leach Leachwell™) with an ICP-MS finish for gold (Intertek Genalysis method code LW1000/MS).</li> <li>The tails were recovered, washed, re-homogenised and analysed by 50gm fire assay for gold (Intertek Genalysis method FA50T/OE).</li> <li>The high grade cyanide leaches utilise the LeachWELL™ accelerant to determine the cyanide extractable gold and provide an indication of potential recoveries in metallurgical processes and circuits. Recovery and analysis of the residues provide the option of reporting total gold values and thus determining the refractory gold fraction.</li> </ul>
Quality of assay data and laboratory tests	<ul style="list-style-type: none"> <li>For 4m composite sampling; field duplicates and field blank samples were inserted at a ratio of 1:20.</li> <li>For 1m re-split samples; field standards and field blanks were inserted at a ratio of 1:20.</li> <li>Laboratory Certified Reference Materials and/or in-house controls, blanks, splits and replicates are analysed with each batch of samples by the laboratory. These quality control results are reported along with the sample values in the final report. Selected samples are also re-analysed to confirm anomalous results.</li> <li>Laboratory and field QA/QC results are reviewed by Alto Metals Ltd (AME) personnel.</li> </ul>
Verification of sampling and assaying	<ul style="list-style-type: none"> <li>50gm fire assay results reported by Genalysis Intertek for the 10kg 4m RC samples ("A" sample), were in general, comparable with the assay results for the same intervals reported by MinAnalytical.</li> <li>Where discrepancies were identified, the discrepancy between the head grade of Sample A vs Sample B Leach grade + Tail grade is likely due to the presence of coarse gold in the original 10kg sample, and Sample A and Sample B therefore not being entirely identical.</li> <li>AME submitted their own Standards to the laboratory used and recent independent assaying of the AME Standards has shown values consistent with AME nominal values.</li> <li>Values below the analytical detection limit were replaced with half the detection limit value.</li> </ul>
Location of data points	<ul style="list-style-type: none"> <li>The grid is based on GDA94 zone 50.</li> <li>AME used handheld Garmin GPS to locate and record drill collar positions, accurate to +/-5 metres.</li> </ul>
Data spacing and distribution	<ul style="list-style-type: none"> <li>In general, the AC drilling grid at the Vanguard Camp was spaced on a nominal 100m x 100m grid.</li> <li>AC drill holes at other prospects were typically at 40m spacing with the line spacing appropriate for each prospect.</li> <li>RC drill holes were designed to test the geological models and to collect samples for preliminary metallurgical testwork and were therefore located to target high-grade mineralisation.</li> </ul>
Orientation of data in relation to geological structure	<ul style="list-style-type: none"> <li>AC drill holes were drilled vertical geological structures were not well understood.</li> <li>AC drill holes were drilled at -60 degrees to the west or east in areas where geological structures were interpreted from previous drilling.</li> <li>RC drill holes were designed to confirm Alto's geological models and intersect high grade mineralisation.</li> <li>Geological structures have been interpreted from drilling.</li> </ul>
Sample security	<ul style="list-style-type: none"> <li>AC 4m composite, RC 4m composite and 1m original RC drill samples comprised approximately 3 kg of material within a labelled and tied calico bag.</li> <li>Individual sample bags were placed in a larger plastic poly-weave bag then into a bulka bag that was tied and despatched to the laboratory via McMahon Burnett freight.</li> <li>Samples for preliminary metallurgical testwork comprised 10kg composite samples, which were stored in labelled and tied plastic bags (double bagged). These samples were transported to Intertek Genalysis by AME staff.</li> </ul>

Criteria	Commentary
	<ul style="list-style-type: none"> <li>Sampling data was recorded on field sheets and entered into a database then sent to the head office.</li> <li>Laboratory submission sheets are also completed and sent to the laboratory prior to sample receipt.</li> </ul>
Audits and reviews	<ul style="list-style-type: none"> <li>A Mineral Resource Estimate for the Vanguard and Vanguard North deposits was prepared for AME by Carras Mining Pty Ltd and released to the ASX on 25 September 2018.</li> <li>A Mineral Resource Estimate for the Tiger Moth, Indomitable and Indomitable North deposits was prepared for AME by Carras Mining Pty Ltd and released to the ASX on 25 September 2018.</li> <li>A Mineral Resource Estimate for the Sandstone North deposit was reported by Troy Resources NL in 2011 (Troy Resources NL Information Memorandum, 2011) as an Inferred Resource of 77,000 tonnes at 2.00 g/t Au for 4,951 ounces of gold.</li> </ul>

## SECTION 2 - Reporting of Exploration Results

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

Criteria	Commentary
Mineral tenement and land tenure	<ul style="list-style-type: none"> <li>AME's Sandstone Project is located in the East Murchison region, Western Australia and covers approximately 800 km<sup>2</sup> with five exploration licences all granted on 20 September 2016 and two prospecting licences granted on 11 June 2016.</li> <li>All tenements are currently in good standing with the Department of Mines, Industry Regulation and Safety.</li> <li>Royalties include a 2% of the Gross Revenue payable to a third party, and a 2.5% royalty payable to the State Government.</li> <li>AME has undertaken heritage surveys with the Native Title Claimants and the surveys have cleared the areas of drilling of any heritage sites.</li> <li>AME's RC and AC drilling was carried out on Exploration Licences 57/1029, E57/1030, E57/1031 and E57/10333, granted on 20 September 2016 to Sandstone Exploration Pty Ltd, a wholly owned subsidiary of ASX listed AME.</li> </ul>
Exploration done by other parties	<ul style="list-style-type: none"> <li>Historically gold was first discovered in the Sandstone area in the 1890's and early mining was carried out at Vanguard and Sandstone North.</li> <li>At Vanguard, Western Mining Corporation (WMC) carried out surface geochemistry, geological mapping and percussion drilling in the 1980's. Herald Resources Limited completed RAB and RC drilling and resource estimation in the 1990's. Troy Resources NL (Troy) completed AC and RC drilling and resource estimation between 1999 and 2009.</li> <li>At Tiger Moth and Indomitable, the majority of exploration was carried out by Troy between 2001 and 2009. Troy's exploration included surface geochemistry, ground geophysics and drilling. Troy reported a mineral resource estimate for Tiger Moth.</li> <li>At Sandstone North, WMC carried out surface geochemistry, geological mapping, drilling and reported a mineral resource. Troy later acquired the ground and carried out further drilling.</li> <li>The majority of exploration carried out at Bulchina was by Troy. Between 1999 and 2006, Troy mined and processed 1.98Mt @ 3.62g/t Au for 230,000 ounces of gold at the Bulchina deposit.</li> </ul>
Geology	<ul style="list-style-type: none"> <li>The Sandstone Greenstone Belt is a triangular shaped belt interpreted to be a north-plunging antiform located at the northern end of the Southern Cross province.</li> <li>The belt consists of mafic volcanic and intrusive rocks with subordinate ultramafic, banded iron formation, and siliciclastic sediments. Granitoid plutons intrude the southern margin of the belt.</li> <li>Much of the project area is covered by depositional regolith units including colluvial, sheet wash, alluvial and sandplain deposits. Several major active drainage areas host transported alluvium up to 15m thick.</li> <li>The Vanguard and Vanguard North deposits are located in a sequence of northwest trending mafic and ultramafic rocks with minor intercalated BIF units.</li> <li>The Tiger Moth and Indomitable deposits are hosted in highly oxidised, high-magnesium basalts, differentiated basalt units and ultramafic units with some intercalated banded-iron-formation.</li> </ul>

Criteria	Commentary
	<ul style="list-style-type: none"> <li>At Sandstone North, old workings to a depth of 30m extend about 200m in a north-south direction in highly sheared shale, felsic schist, graphitic schist and chert.</li> <li>Bulchina is located along a major NNE trending shear zone, the Bulchina Shear Zone, a 10-15m wide zone of highly strained rock, developed subparallel to the Youanmi Fault.</li> </ul>
Drill hole information	<ul style="list-style-type: none"> <li>All material drill hole information has been reported on a continual basis by AME.</li> </ul>
Data aggregation methods	<ul style="list-style-type: none"> <li>When AME exploration results have been reported, a 0.5g/t cut-off grade has been applied.</li> <li>No metal equivalents have been used or reported.</li> <li>The reported grades are uncut.</li> </ul>
Relationship between mineralisation widths and intercept lengths	<ul style="list-style-type: none"> <li>Deeper intercepts in angled holes may or may not be true widths due to a lack of systematic drilling, deep oxidation, interpreted multiple structures and no diamond drill core.</li> </ul>
Diagrams	<ul style="list-style-type: none"> <li>Diagrams are included to accompany this JORC table.</li> </ul>
Balanced reporting	<ul style="list-style-type: none"> <li>All available AME drill hole Au assay results published, use 0.5g/t Au cut-off grade.</li> </ul>
Other substantive exploration data	<ul style="list-style-type: none"> <li>There is no other material information available at this stage.</li> </ul>
Further work	<ul style="list-style-type: none"> <li>Further drilling, including AC, RC and diamond core may be carried out in future to follow-up AC and RC mineralised intercepts, provide appropriate bulk density measurements and samples for more detailed metallurgical testwork, and for resource extension and upgrade.</li> </ul>