# ASX RELEASE SEPT

**SEPTEMBER 2018 QUARTERLY REPORT** 

16 October 2018





Alto Metals Limited
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#### **Directors:**

Non- Executive Chairman Mr Terry Streeter

Managing Director Mr Dermot Ryan

Non-Executive Director Dr Jingbin Wang

Non-Executive Director Mr Terry Wheeler

Company Secretary & CFO Mr Patrick Holywell

## **HIGHLIGHTS – SANDSTONE GOLD PROJECT**

- ➤ Maiden [JORC 2012] Inferred Mineral Resource estimate of 2.6Mt @ 1.5 g/t Au for 124,000 ounces for Indomitable and Vanguard Camp deposits.
- ➤ Together with deposits at Lord Henry and Lord Nelson, Alto's total JORC 2012 Mineral Resource inventory is 4.9Mt @ 1.7g/t Au for 261,000oz, comprised of 1.2Mt @ 1.6g/t Au for 65,000oz (Indicated) and 3.7Mt @ 1.7g/t Au for 196,000oz (Inferred).
- ➤ All deposits remain open, with potential to extend the mineralisation down dip or down-plunge, and to discover repeat lodes.
- ➤ Mining Lease Application 57/646 was lodged over the Indomitable Camp deposits in anticipation of increases to mineral resources with additional drilling.
- Assay results received in Q3 from Q2 aircore (AC) drilling at Vanguard, Tiger Moth, Indomitable North, Sandstone North and Bulchina show that shallow gold mineralisation is more extensive than previously known.
- ➤ Assay results received in Q3 from surface samples collected in Q2 have defined walk up drill targets for 2019 at Valiant, Indomitable North, Hancocks, Edale, Superb and Chance.

Commenting on the progress of the Project during the Quarter, Managing Director Dermot Ryan said: "The estimation of maiden JORC 2012 compliant Mineral Resources at the Indomitable and Vanguard Camps is a significant milestone for the Company.

In particular, it demonstrates that our methodical, systematic and targeted approach to exploration at Sandstone is working. The next step in the process is to follow our modelled mineralised systems deeper into the higher grade primary zones with reverse circulation and diamond drilling, and increase tonnes and grade.

In addition, our soil sampling program has identified a number of outstanding gold in laterite and gold in soil anomalies that require drill testing to determine the presence of any substantial gold mineralisation at depth".

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## **SUMMARY OF ACTIVITIES - SEPTEMBER QUARTER 2018**

Alto Metals Limited (ASX: AME) ("Alto", "the Company") is pleased to provide a summary of activities for the Quarter ending 30 September 2018 at its 100% owned 800km<sup>2</sup> Sandstone Gold Project in Western Australia. Exploration and evaluation activities included:

- Modelling and resource estimation of 6 deposits in the Indomitable and Vanguard Camps.
- Drilling of 4 reverse circulation (RC) holes to provide samples for preliminary metallurgical testwork to provide an indication of potential recoveries in metallurgical processes and circuits.
- Fire assaying of aircore samples from Vanguard, Tiger Moth and Indomitable North.
- Field checking and heritage clearance over surface geochemical anomalies and litho-structural targets identified for future aircore (AC) drill testing.

#### RESOURCE ESTIMATION

A Maiden [JORC 2012] Inferred Mineral Resource of 2.58Mt @ 1.5 g/t Au for 124,000oz was estimated for the Indomitable and Vanguard Camp deposits. The resources consist of six individual deposits which have undergone extensive work and interpretation by Alto's geologists and resource consultant Dr Spero Carras of Carras Mining Pty Ltd.

Further drilling will be carried out to determine the appropriate bulk densities for all deposits and once this information is available, together with geotechnical drilling to confirm nominal pit slopes used to define the A\$2,000/oz Whittle pit shell, Resources can be placed into a higher classification category. Preliminary metallurgical testwork indicates 92%+ recovery is reasonable, with further definitive testwork planned.

Together with existing deposits at Lord Henry and Lord Nelson, Alto's total [JORC 2012] Mineral Resource inventory now stands at 4.87Mt @ 1.7g/t Au for 261,000oz. (Refer Table 1)

Table 1. Sandstone Gold Project – Summary of Total Mineral Resources (JORC 2012) **Cut-off Grade** Grade Contained **Tonnage** 

Deposit	Classification	(g/t Au)	(kt)	(g/t Au)	Gold (oz)
Lord Henry <sup>1</sup>	Indicated	0.8	1,200	1.6	65,000
TOTAL INDICATED			1,200	1.6	65,000
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
TOTAL INFERRED			3,670	1.7	196,000
TOTAL INDICATED & INFERRED 4			4,870	1.7	261,000

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"

Footnote 4: For reporting purposes, Table 1 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.

#### REVERSE CIRCULATION DRILLING

During September, 4 RC holes (total 356m) were drilled at Vanguard, Tiger Moth and Indomitable deposits to provide samples for preliminary metallurgical testwork. The 2 RC holes at Indomitable failed to reach target depth. *Refer AME ASX release dated 15 October 2018*.

At **Vanguard** RC hole SRC114 was drilled to a set depth of 102m. The +1.0g/t Au fire assay results for the 4m composite samples are shown in Figure 1 and Table 2 below.

The deeper and higher-grade gold intersections down plunge and external to the 2018 \$2,000/oz Whittle pit shell are not included in the 2018 Mineral Resource estimate and require follow up RC and diamond core drilling with a view to enlarge the mineral resource.

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

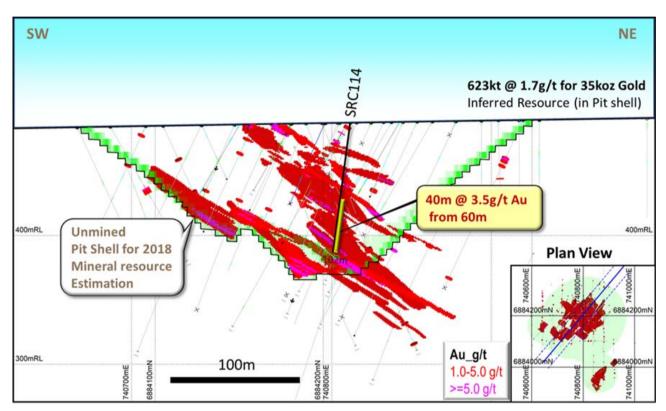


Table 2. Vanguard Deposit, RC Hole SRC114, Fire Assay Results +1.0g/t Au of 4m Composite Samples

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	3.48
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						92	96	4	1.07
and						96	100	4	3.58

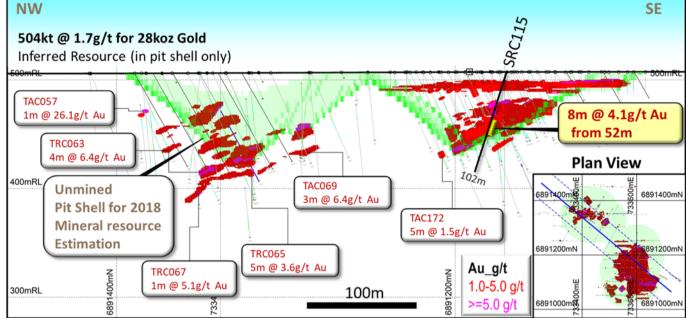
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At Tiger Moth, RC hole SRC115 was also drilled to a set depth 102m. The +1.0g/t Au fire assay results for the 4m composite samples are shown in Figure 2 and Table 3 below.

The deeper and higher-grade gold intersections down plunge and external to the 2018 \$2,000/oz Whittle pit shells are not included in the 2018 Mineral Resource estimate and require follow up RC and diamond core drilling with a view to enlarge the mineral resource.

2018 Mineral Resource Estimation and Location of Subsequent Alto RC Hole SRC115 NW 504kt @ 1.7g/t for 28koz Gold

Figure 2. Tiger Moth Section Oriented 310° NW (+/-50m) Showing A\$2,000/oz Whittle Pit Shells for



Note: White Labelled Intersections are OUTSIDE the 2018 Pit Shells and not included in resource estimates. References: WAMEX 68574 for TAC172; WAMEX 66340 for all the other white labelled drill holes

Table 3. Tiger Moth Deposit, RC Hole SRC115, Fire Assay Results +1.0g/t Au of 4m Composite Samples

Hole ID	East GDA94	North GDA94	Depth (m)	Dip (deg)	Azimuth (deg)	From (m)	To (m)	Interval (m)	Grade (g/t Au)
SRC115	733598	6891165	102	-62	0	12	16	4	1.06
and						52	60	8	4.14
Incl.						52	56	4	5.46
and						56	60	4	2.82

#### PRELIMINARY METALLURGICAL TESTWORK

At the Intertek Genalysis laboratory 16 representative 10kg composite RC samples from SRC114, SRC115 and previously drilled hole SRC086 (drilled at Indomitable in February 2018) were submitted for preliminary metallurgical testwork using fire assay and Intertek's accelerated leach method [LeachWELL<sup>TM</sup>] to determine the cyanide extractable gold and provide an indication of potential recoveries in metallurgical processes and circuits.

Preliminary metallurgical test results indicate that recoveries from oxide and fresh rock at Vanguard, Tiger Moth and Indomitable are in excess of 92%. The results of this limited metallurgical testwork indicate that there should be no issues with metallurgical recovery, although further testwork is planned. Refer AME ASX release dated 15 October 2018.

#### **AIRCORE DRILLING**

At the **Indomitable North** prospect, Alto received 50gm fire assay (FA) results of 1m aircore (AC) samples from the shallow 44 hole program (SAC152-195) drilled in June 2018.

These results have helped to extend the strike of the shallow flat lying (lateritic) gold mineralisation to over 180m. In addition, these results provide encouragement for further deeper drilling to discover the extent of oxide and primary gold mineralisation below and around the laterite mineralisation. Refer Figures 3 and 4 for drill hole locations for AC holes SAC152-195, and Figure 5 as an example of the shallow high grade nature of the gold mineralisation.

Figure 3. Location of Indomitable Camp Deposits & Prospects & AC/RC Drill Holes Over Satellite Imagery

Figure 4. Detailed Location of Indomitable North AC & RC Drill Collars with Significant Drill results

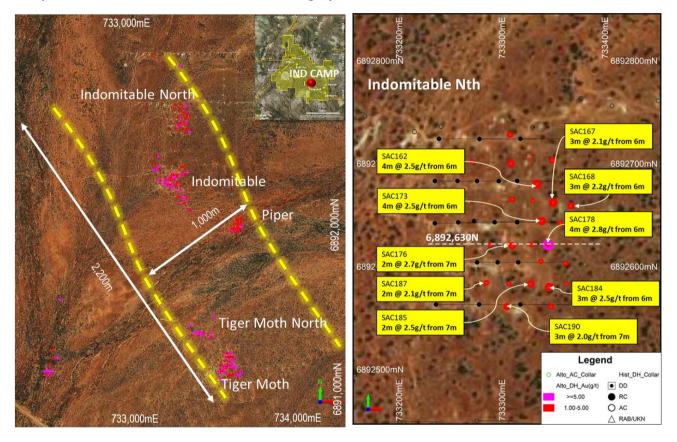
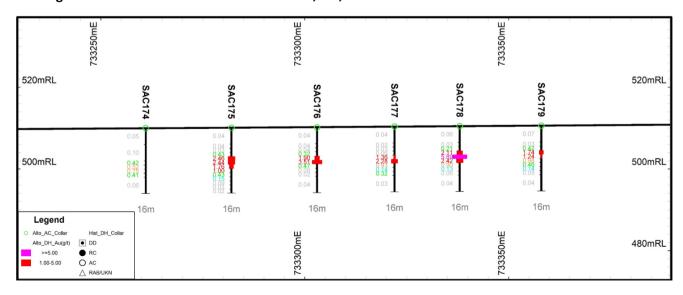


Figure 5. Indomitable North Cross Section 6,892,630N and Recent Alto Vertical SAC174-179 Holes



At the **Tiger Moth** deposit, Alto received 50gm fire assay results of 1m aircore samples from the shallow 31 hole program drilled in June 2018 to test the grade and thickness of the shallow laterite gold hosted mineralisation.

The deposit is hosted in highly oxidised, high-magnesium basalts and differentiated basaltic units. The gold mineralisation is related to stockwork quartz veining within saprolite.

A gold bearing pisolitic (lateritic) horizon is located above the saprolite hosted deposits at a depth of 10 metres below the surface. It is separated from main mineralised bodies by a zone of gold depletion about 10 metres thick

Refer Figure 6 for locations of AC holes SAC121-151, and Figure 7 as an example of the shallow high grade nature of the gold mineralisation.

Figure 6. Location of Tiger Moth Cross Section and Recent AC Holes ("Max Au Plan")

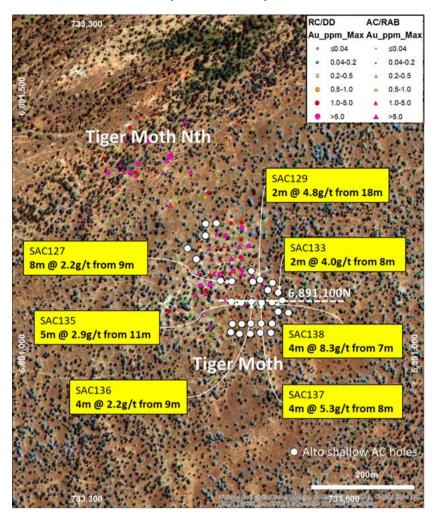
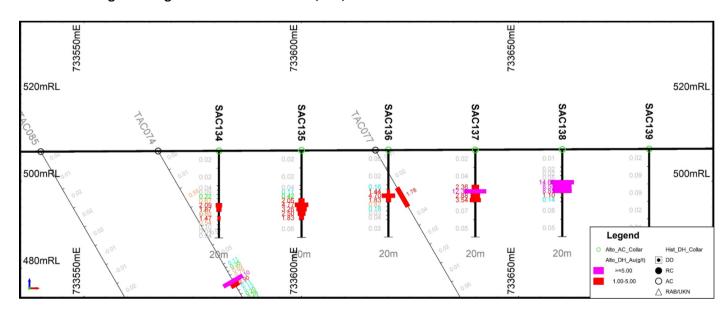


Figure 7. Tiger Moth Cross Section 6,891,100N and Recent Alto Vertical SAC Holes



**Note:** Holes prefaced TAC & TRC in Figure 7 were drilled by a previous explorer.

### **SOIL SAMPLING**

Alto collected ~3,000 soil samples from 17 selected areas in April/ May 2018 and minor follow up soil samples in July, which have been integrated and assessed with competitor's soils sample results. (Figure 8 below). The image below displays in **yellow** the names of significant deposits, and in **white** the names of significant soil and laterite gold anomalies requiring drill testing.

**Note**: Gold in laterite and soil anomalies were detected over the Bulchina and Lord Nelson gold deposits pre-mining. Collectively, these two deposits produced ~457,000 ounces of gold between 1999 and 2009.

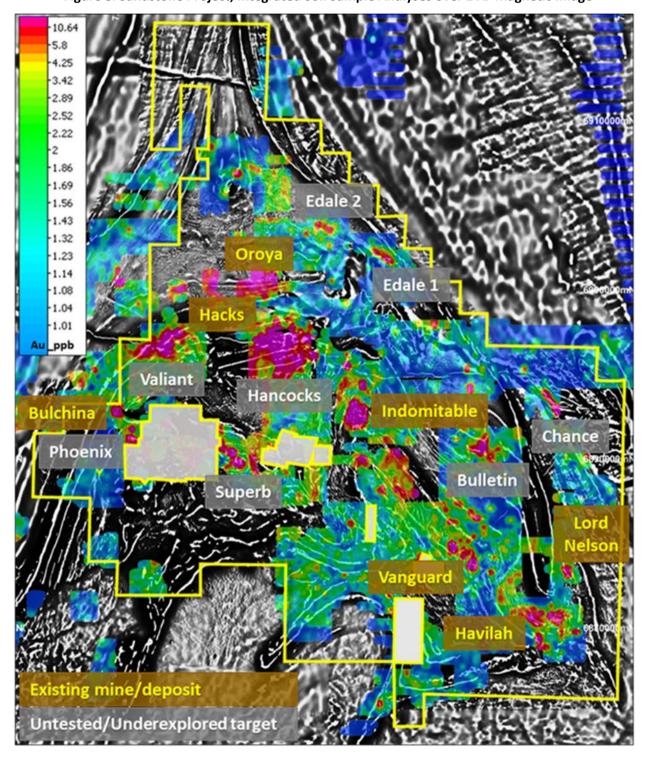


Figure 8. Sandstone Project, Integrated Soil Sample Analyses over 1VD Magnetic Image

At the **Hancocks** prospect, 5km south east of Sandstone town, assay results from the 478 soil samples collected have defined a coherent +15 parts per billion (ppb) gold-in-soil anomaly over +8km<sup>2</sup>. 93 of the samples (19% of total collected) assayed greater than 30ppb. Mapping and further soil sampling is required around the southwest and eastern edge of the anomaly before targeting and drill testing can commence. (*Refer AME ASX release 17 July 2018*)

At the **Edale** prospect, 10km east of Sandstone, assays results from 28 samples out of a total of 340 samples collected in the vicinity the Edale Fault returned anomalous results +7ppb Au in three discrete linear zones, each between 1,000m -1,500m long. (*Refer AME ASX release 20 June 2018*) Further minor sampling was undertaken in July 2018, and the anomaly is now defined and ready for drill testing.

At the **Superb** prospect, 12km south of Sandstone, 24 soil samples out of a total of 74 samples collected in the vicinity of a geophysical target have defined a 1,500m long, south-east striking gold in soil anomaly of +7ppb Au. The anomaly is open to the south east and further soil sampling is required. (*Refer AME:ASX release 27 June 2018*) Further minor sampling was undertaken in July 2018, and the anomaly is now defined and ready for drill testing.

At the **Valiant** prospect, 7km south southeast of Sandstone, 32 soil samples out of 336 samples collected over the general area encompassing litho-structural targets TR09 - TR11 and TR13 & TR021 have defined 2.5km² gold-in-soil anomaly centred on a 2,500m wide northwest trending corridor of heavily fractured mafic rocks, banded iron formation (Bif) and felsic intrusives, under laterite. Mapping and drill testing is required. (*Refer AME:ASX release 12 July 2018*)

### **CORPORATE**

On 17 July 2018, the Company announced the resignation of Non-Executive Director Mr Stephen Stone due to other executive and business related commitments.

On 23 August 2018 the Company went into a trading halt and on 27 August announced that it had completed a capital raising of \$0.45 milion (before costs) to progress evaluation and exploration on Alto's Sandstone Gold Project and for working capital purposes. The Placement involved the issue on 3 September 2018 of 9,596,141 new fully paid ordinary shares at an issue price of 4.7 cents per share to sophisticated and professional investors in accordance with the Company's available 15% placement capacity pursuant to ASX Listing Rule 7.1.

The issue price represented a nil discount to the closing price on 22 August and a  $^{\sim}19\%$  discount to the volume weighted average price of the Company's shares on the ASX over the 30 trading days prior to and including the 22 August. The new shares rank equally with existing Alto ordinary shares quoted on the ASX.

On 28 Sep 2018 the Alto Metals Ltd 2018 Annual Report was released to the market.

#### **CAPITAL STRUCTURE @ 30 SEPTEMBER 2018**

Total Fully Paid Ordinary Shares on issue: 195,055,603
Unlisted Performance Shares on Issue: (vendors) 25,000,000
Unlisted Performance Rights on Issue: (management) 6,750,000

### **CASH POSITION**

The Company's cash position at 30 September 2018 was \$0.5 million.

## **INVESTMENTS IN ASX LISTED COMPANIES**

Alto holds 2,500,000 shares in ASX-listed Enterprise Metals, worth approximately \$50,000 at 30 September 2018. This investment is reviewed on a regular basis.

### **FORWARD EXPLORATION & EVALUATION 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

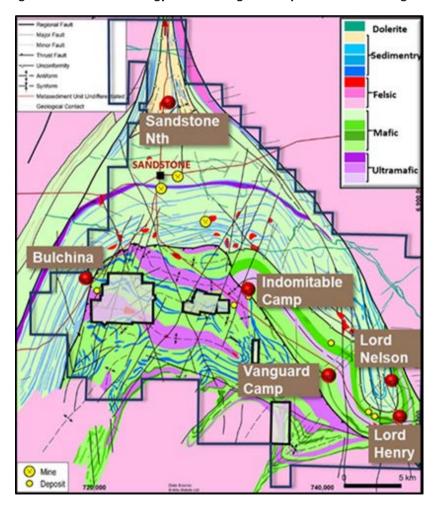
#### ABOUT ALTO AND THE SANDSTONE GOLD PROJECT

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 re-establishment standalone oxide and primary gold mining and milling operations at the Project.

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 9. Sandstone Geology Plan showing Alto Deposits & Landholdings



#### **Further information:**

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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.

## Tenement Information as Required by Listing Rule 5.3.3

Appendix 1. Sandstone Tenement Schedule at 30 September 2018

Tenement	Location	Interest Held	Registered Holder	Lease Status
E57/1029	Sandstone, WA	100%	Sandstone Exploration Pty Ltd	Granted
E57/1030	Sandstone, WA	100%	Sandstone Exploration Pty Ltd	Granted
E57/1031	Sandstone, WA	100%	Sandstone Exploration Pty Ltd	Granted
E57/1033	Sandstone, WA	100%	Sandstone Exploration Pty Ltd	Granted
E57/1044	Sandstone, WA	100%	Sandstone Exploration Pty Ltd	Granted
E57/1072	Sandstone, WA	100%	Sandstone Exploration Pty Ltd	Application
*E57/1101	Sandstone, WA	100%	Sandstone Exploration Pty Ltd	Application
*M57/646	Sandstone, WA	100%	Sandstone Exploration Pty Ltd	Application
P57/1377	Sandstone, WA	100%	Sandstone Exploration Pty Ltd	Granted
P57/1378	Sandstone, WA	100%	Sandstone Exploration Pty Ltd	Granted
P57/1415	Sandstone, WA	100%	Sandstone Exploration Pty Ltd	Application
P57/1417	Sandstone, WA	100%	Sandstone Exploration Pty Ltd	Application

<sup>\*</sup>Acquired during September Quarter

**Appendix 2. Tenements Disposed of During September Quarter 2018** 

Tenement	Location	Interest Disposed	Registered Holder	
E57/1070	Sandstone, WA	100%	Sandstone Exploration Pty Ltd	Withdrawn
E57/1098	Sandstone, WA	100%	Sandstone Exploration Pty Ltd	Withdrawn

Note: Sandstone Exploration Pty Ltd is a wholly owned subsidiary of Alto Metals Limited