

## ASX Announcement and Media Release

23 October 2017

### INCREASED VHMS BASE METAL POTENTIAL AT A-ZONE

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#### HIGHLIGHTS:

- **Kalamazoo completes lease wide compilation of base metal potential.**
- **Multiple new base metal target horizons (currently seven) defined at A-Zone:**
  - A Zone anomaly extends 3.5km by 1km highlighting VHMS deposit potential
  - Additional zone of base metal anomalism defined in hanging wall 'B-Zone'
  - A substantial anomalous zone ('C Horizon') is defined and is open for 5km along strike.
  - 5 additional anomalous horizons require follow-up
- **Strong levels of copper, zinc and lead reported in re-assaying\* of RC samples for base metals with portable XRF instrument:**
  - MJAZRC009: 11m @ 0.24% Zn from 2m
  - MJAZRC010: 18m @ 0.46% Cu, 0.36% Zn, 0.12% Pb from 3m
  - MJAZRC013: 13m @ 0.36% Pb, 0.41% Zn, 0.22% Cu from 50m
  - MJAZRC018: 2m @ 4.4% Zn, 2.9% Pb from 54m
  - MJAZRC019: 14m @ 0.87% Zn, 0.36% Cu, 0.76% Pb from 4m
  - MJAZRC061: 11m @ 0.39% Zn, 0.30% Cu, 0.30% Pb from 49m
  - MJAZRC073: 31m @ 0.21% Zn from 22m
- **Anomalous base metals identified\* in fresh bedrock in historic diamond hole, supports oxide geochemical trends**
  - CWRD180: 24m @ 0.74% Zn from 76m, including 2m @ 5.4%Zn, 0.5%Cu, 0.7%Pb and 16g/t Ag from 87m
- **Follow-up exploration for base metal VHMS potential to focus on 25 kilometre underexplored corridor to test for the potential to host a world-class VHMS camp.**

\*Refer to Tables 1 to 3, Results and JORC 2012 Code, Sections 1 & 2.

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## Details

Emerging gold and base metal exploration company, Kalamazoo Resources Limited (**ASX: KZR**) ("**Kalamazoo**"), provides the following update on its assessment of the VHMS (Volcanogenic-Hosted Massive Sulphide) base metal potential at its A-Zone Project ("**A-Zone**") and along the 25km of strike of the felsic stratigraphy within the project area (Figure 1). Kalamazoo reported significant results for base metals from A-Zone (*Refer to ASX announcement dated 23 June 2017*) resulting from the re-assay of sample pulps from the Minjar Gold Pty Ltd reverse circulation drilling program, completed earlier this year.

Kalamazoo has subsequently compiled multi-element data from historic exploration drill holes with the objective of determining whether metal zoning is apparent that could be consistent with a 'typical' VHMS system. This work has identified a mainly Cu-Pb anomaly within a 3.5 km zone including and surrounding the A-Zone gold resource. Historically, very few of the historic holes were analysed for zinc and hence no zonation for zinc can currently be defined. Results of this work are summarised in Figure 2 and discussed below.

Work completed included use of a portable X-ray fluorescence analyser ("**XRF**") to test for Cu, Pb and Zn and a range of other trace elements on portions of the Minjar drilling that were not previously analysed for base metals, and spectral studies ("**ASD**") to determine what, if any, alteration types and zoning may be present that are indicative of a VHMS system. Preliminary XRF results have been received and ASD scans have been completed with interpretation of their significance pending.

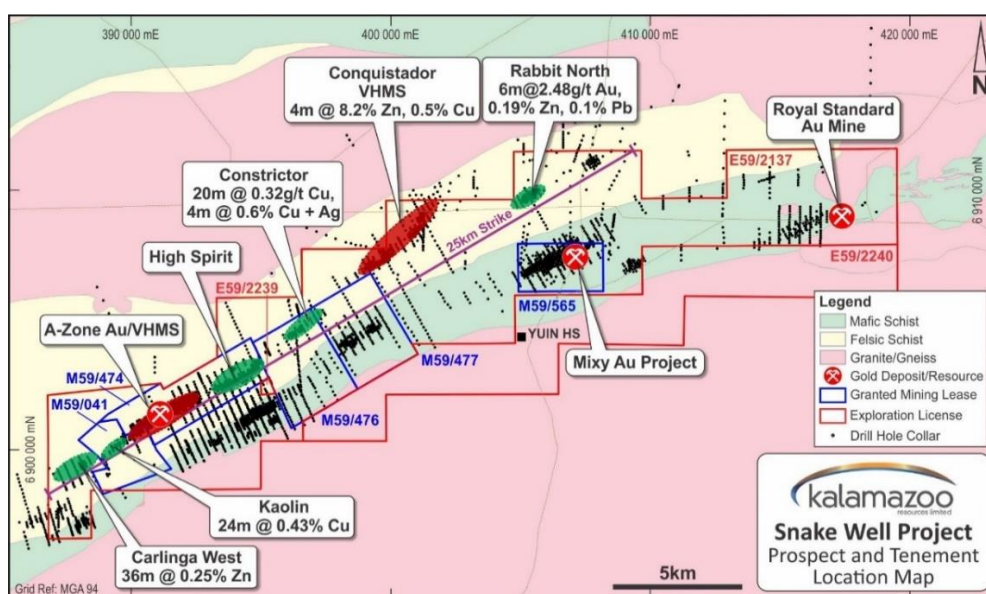


Figure 1: Snake Well Location Plan of Base Metal (VHMS) Projects and selected significant results. (Refer to KZR ASX announcement dated 23 June 2017)

## Multiple New Base Metal Zones Defined

Geochemical sampling in the vicinity of the A-Zone gold resource has now identified up to seven zones with strong base metal associations; A-Zone SW and NW Extensions, VHMS C Horizon and Anomalies C, D, Y and Z (Figure 2) in addition to the hanging wall mineralisation ('B-Zone') adjacent to and south of the gold resource.

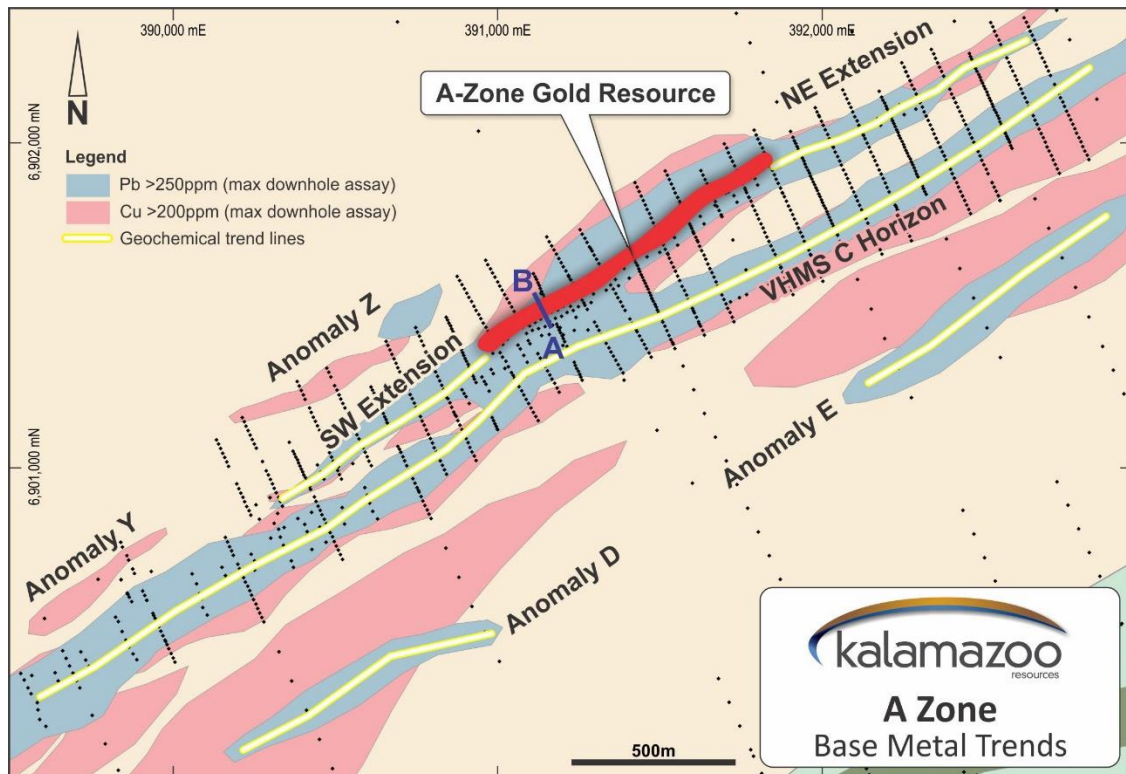


Figure 2. Interpreted base metal distribution trends near A-Zone gold resource

Maximum downhole assays by conventional laboratory methods for Cu and Pb have defined multiple anomalous horizons adjacent to the A-Zone gold resource, based on widely spaced historical drilling in a north-east corridor 3.5km in strike and 1km in width where maximum Pb down hole exceeds 250ppm. This zone also defines coincident +200ppm Cu and +450ppm Zn anomalies within the felsic volcanic rocks.

The +250ppm Pb, +200ppm Cu anomaly at A-Zone itself is open to the north east for approximately 1km and to the south west for 800m. The VHMS horizon in these areas is generally drilled to an average depth of only 40m, with most drilling failing to intersect fresh bedrock. The A-Zone VHMS horizon is therefore essentially untested in fresh rock for the majority of its 3km strike length.

A second substantial anomalous zone ('C Horizon') is defined by the +250ppm Pb and +200ppm Cu anomaly 120m south east of A-Zone in a strike parallel position. Given the evidence for the hanging wall 'B Zone' VHMS results delivered by the XRF analysis reported below, Kalamazoo considers that this C Horizon has potential to host VHMS

mineralisation and constitutes an exploration drilling target. The C Horizon is open for 5km along strike.

Wide-spaced historic 800m x 200m reconnaissance RAB drilling to the south of the C Horizon has returned anomalous Pb, Cu and Zn in saprolite in two areas (Anomaly D and Anomaly E) over multiple lines. This may possibly represent VHMS mineralisation. These anomalies require follow-up exploration.

Two further anomalies are present in the footwall of the A Zone mineralised horizon and are defined by +200ppm Cu in reconnaissance RAB drilling (Anomaly Y and Z). These anomalies are open to the north east and south west and also require follow-up exploration.

## **XRF Results**

The XRF base metal determinations on RC chip samples have revealed highly anomalous levels of Cu, Pb and Zn, mainly in the oxide portion, in the hanging wall of a number of holes at the A-Zone gold resource, clearly distinct from the original targeted oxide gold zone. This is well illustrated in Figure 3 (Section A-B) from the south west end of the A-Zone gold resource, where significant Cu-Zn-Pb zones are located more than 20m into the hanging wall of the gold lode in holes MJAZRC009 and MJAZRC010 in the oxidised clay zone. Drill hole details are listed in Table 1 and summary significant XRF results are listed in Table 2.

Furthermore, a deep historic diamond hole (CWRD180, Figure 3, Table 3) intersected numerous zones within fresh bedrock that are strongly anomalous in Zn, Cu, Pb, (+/- Au, Ag) including 24m at 0.74% Zn from 76m (analysed by conventional laboratory techniques) which provides good support for the use of XRF on drill chips in the oxide as a means of detecting potential deeper VHMS alteration and mineralisation.

## **Cautionary Statement**

The analysis via XRF was designed to deliver trace element data to assist with analysis of the alteration and structural controls on the mineralisation, not to provide laboratory-quality assays for mineral estimation purposes. Kalamazoo considers that the results (taking into account QA/QC information) are *indicative only* of zones prospective for VHMS mineralisation.

The XRF grades in Table 2 are not considered to be representative of the final assay grades, based on a comparison of some of the XRF analyses to assays completed earlier in 2017 (*Refer ASX announcement dated 23 June 2017*) which indicate that XRF analyses are accurate to within +/- 10-30% Zn, +/- 5-15% Cu and +/- 5-15% Pb. Further, XRF



analysis cannot reliably detect silver at the grades likely to be present within the A-Zone mineralisation, so no silver grades are reported. Kalamazoo is in the process of re-assaying the anomalous sample intervals using XRF on corresponding pulps and via conventional laboratory assay techniques. Early indications are that XRF results on pulps yield higher results than for chips.

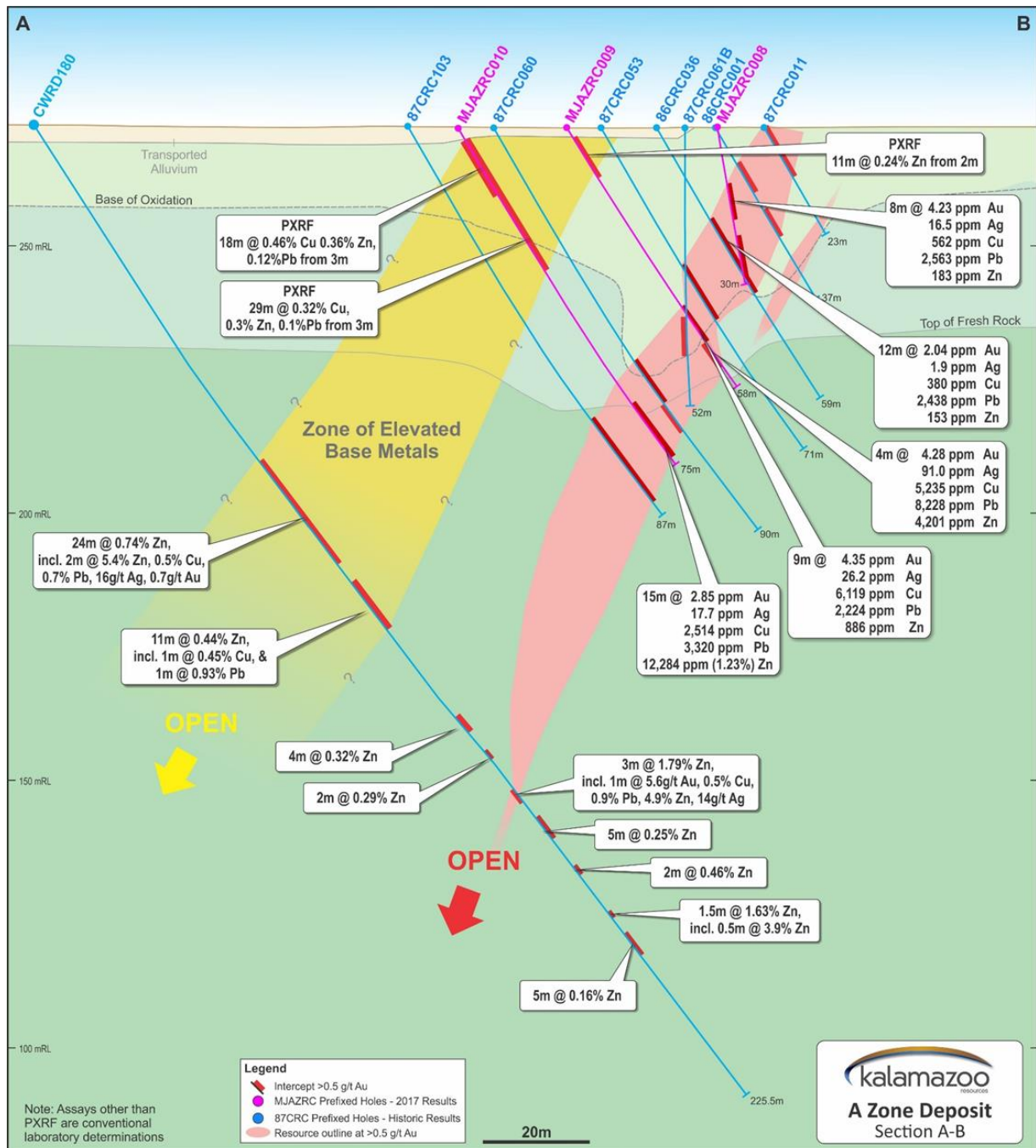


Figure 3. Cross section A-B showing elevated base metals in the hanging wall.  
(Refer KZR ASX announcement dated 23 June 2017 and Tables 1 to 3)

Given the strong high-grade coincident zinc and silver, and significant copper and lead mineralisation returned from a selective re-assay program<sup>1</sup> at A-Zone by Kalamazoo, the company considers that the project area from Carlinga West to Rabbit Well North, remains largely underexplored, a distance of 25 kms.

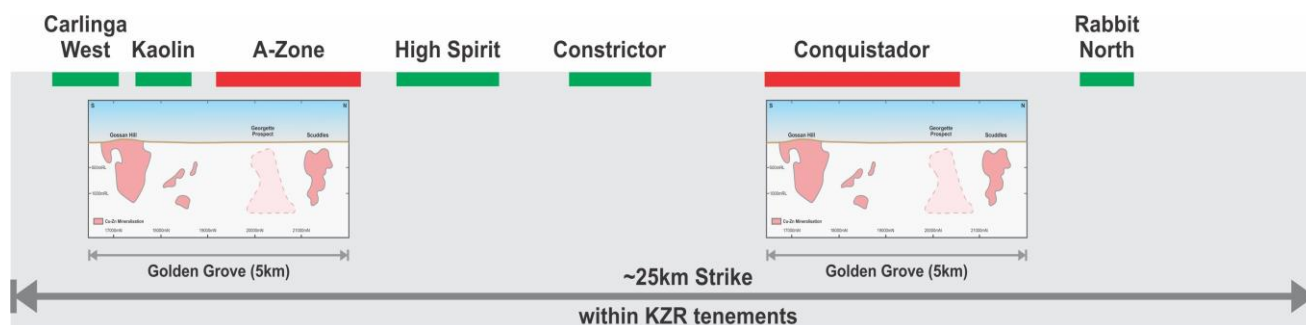


Figure 4: Idealised and Interpreted Longitudinal Section Superimposing the Golden Grove VHMS camp relative to Kalamazoo's 25 km long, Snake Well base metals prospects and anomalies.  
(Refer to ASX announcement dated 21 July 21)

A geophysical review of the exploration of the belt identified several major opportunities;

- Lack of coherent gravity data.
- Limited historical and no modern high powered Down Hole Electro-Magnetics (**DHEM**) surveys, which have been used to great success in targeting VHMS mineralisation (e.g. Sandfire Resources at the DeGrussa Mine).
- Limited use of Induced Polarization (**IP**) or other regional geophysical tools.
- Limited follow-up of existing anomalies.

Kalamazoo believes the Snake Well felsic rock succession has the potential to host a world-class VHMS camp, as only as little as 500m of strike is required to form an economically attractive massive sulphide deposit (Figure 4).

## Future Work Program

The results of the first phase of base metal prospectivity study and re-assay program at A-Zone has provided confidence in the VHMS base metal potential of the project area. It has warranted a significant expansion of the exploration work program in the wider project area along the full 25 km corridor.

<sup>1</sup> Refer to ASX announcement dated 23 June 2017



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**About Snake Well Project**

Kalamazoo's flagship gold asset is the Snake Well Project, which is located 450km north of Perth in the Mid-West region. It consists of five granted mining leases, one granted exploration licence and two exploration licence applications. The Snake Well Project covers Archaean rocks over an area of approximately 263km<sup>2</sup> and a 45km prospective strike length of the Talling greenstone belt, in the western portion of the Murchison Domain that hosts a number of significant mineral deposits including Golden Grove (Cu-Zn), Big Bell (Au), Cue (Au), Deflector (Cu-Au) and Mt Magnet (Au).

**Competent Persons Statement**

The information in this release that relates to the exploration data is based on information compiled by Mr Lance Govey, a competent person who is a Member of The Australasian Institute of Mining and Metallurgy. Mr Govey is an employee of BinEx Consulting who is engaged as the Exploration Manager for the Company. Mr Govey 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 Govey consents to the inclusion in this document of the matters based on his information in the form and context in which it appears.

**Forward Looking Statements**

Statements regarding Kalamazoo's plans with respect to its mineral properties and programmes are forward-looking statements. There can be no assurance that Kalamazoo's plans for development of its mineral properties will proceed as currently expected. There can also be no assurance that Kalamazoo will be able to confirm the presence of additional mineral resources/reserves, that any mineralisation will prove to be economic or that a mine will successfully be developed on any of Kalamazoo's mineral properties. The performance of Kalamazoo may be influenced by a number of factors which are outside the control of the Company and its Directors, staff and contractors.

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**Table 1. Drill hole details**

(Holes prefixed 86, 87 and CWRD are historic drilling; holes prefixed MJAZRC and MJAZDD are 2017 drilling, RC and diamond holes respectively)

Section	Hole ID	Easting (m) MGA94 Z50	Northing (m) MGA94 Z50	RL (m) AHD	Hole Depth (m)	Azimuth (mag)	Dip (degrees)
A-B	87CRC103	391166.90	6901436.00	272.32	87	334	-60
A-B	87CRC060	391158.49	6901449.71	272.01	90	334	-60
A-B	87CRC053	391148.68	6901467.22	272.04	71	334	-60
A-B	86CRC036	391143.61	6901476.27	272.05	59	334	-60
A-B	87CRC061B	391142.76	6901481.87	272.05	52	360	-90
A-B	86CRC001	391138.40	6901486.00	272.07	37	334	-60
A-B	86CRC011	391134.10	6901494.00	272.09	23	334	-60
A-B	CWRD180	391200.6	6901375.21	272	225.5	331	-60
	MJAZRC006	391118.92	6901448.24	272.55	53	326	-55
A-B	MJAZRC008	391130.06	6901481.72	272.22	36	326	-80
A-B	MJAZRC009	391145.88	6901458.30	272.07	58	326	-60
A-B	MJAZRC010	391157.17	6901441.36	271.95	75	326	-60
	MJAZRC011	391151.34	6901494.81	272.03	31	326	-60
	MJAZRC012	391156.52	6901487.23	271.96	48	326	-75
	MJAZRC015	391183.59	6901487.01	272.03	53	326	-65
	MJAZRC017	391202.52	6901508.19	272.26	42	326	-60
	MJAZRC020	391219.93	6901527.49	272.58	36	326	-60
	MJAZRC021	391231.69	6901509.69	272.83	55	326	-60
	MJAZRC023	391241.85	6901532.90	272.95	46	326	-60
	MJAZRC024	391253.87	6901515.28	273.25	66	326	-60
	MJAZRC025	391249.37	6901573.72	272.94	30	326	-60
	MJAZRC026	391263.56	6901558.08	273.28	36	326	-60
	MJAZRC027	391271.90	6901539.74	273.48	56	326	-60
	MJAZRC028	391275.67	6901577.79	273.14	27	326	-60
	MJAZRC029	391283.97	6901560.23	273.40	48	326	-60
	MJAZRC030	391298.26	6901544.51	273.64	72	326	-60
	MJAZRC032	391303.77	6901581.27	273.29	39	326	-60
	MJAZRC033	391314.54	6901565.39	273.45	60	326	-60
	MJAZRC039	391359.75	6901632.01	272.78	20	326	-60
	MJAZRC040	391371.32	6901614.87	272.94	48	326	-60
	MJAZRC041	391382.91	6901597.88	273.12	66	326	-60
	MJAZRC043	391398.41	6901619.34	272.88	54	326	-60
	MJAZRC044	391413.40	6901642.24	272.60	36	326	-60
	MJAZRC048	391512.88	6901718.54	271.66	48	326	-60
	MJAZRC049	391542.10	6901764.18	271.72	18	326	-60



Section	Hole ID	Easting (m) MGA94 Z50	Northing (m) MGA94 Z50	RL (m) AHD	Hole Depth (m)	Azimuth (mag)	Dip (degrees)
	MJAZRC050	391552.65	6901748.30	271.85	60	326	-60
	MJAZRC051	391563.90	6901731.21	271.87	78	326	-60
	MJAZRC052	391591.48	6901780.20	272.08	42	326	-60
	MJAZRC054	391613.30	6901747.56	272.14	78	326	-60
	MJAZRC055	391673.08	6901838.60	272.54	30	326	-60
	MJAZRC056	391684.93	6901820.93	272.64	45	326	-60
	MJAZRC058	391701.023	6901841.54	272.58	40	326	-60
	MJAZRC060	391727.19	6901846.99	272.70	44	326	-60
	MJAZRC061	391739.11	6901829.07	272.82	72	326	-60
	MJAZRC065	391757.98	6901891.58	272.64	28	326	-60
	MJAZRC066	391769.51	6901874.26	272.73	50	326	-60
	MJAZRC067	391773.10	6901914.04	272.64	30	326	-60
	MJAZRC068	391785.02	6901896.20	272.68	48	326	-60
	MJAZRC070	391804.67	6901911.66	272.70	45	326	-60
	MJAZRC073	391686.73	6901788.94	272.71	54	326	-60
	MJAZRC075	391661.97	6901821.70	272.57	30	326	-60

**Table 2. Drill hole results –pXRF Base Metals (2017 Drilling)\***  
(note: Au by 50g fire assay/AAS)

Hole No	Interval (m)	From (m)	To (m)	Cu (pXRF)	Pb (pXRF)	Zn (pXRF)	Au ppm
MJAZRC006	7	26	33	290ppm	0.18%	86ppm	0.18
MJAZRC006	5	44	49	NSR	0.10%	NSR	0.65
MJAZRC009	11	2	13	619ppm	477ppm	0.24%	NSR
MJAZRC010	18	3	21	0.44%	0.12%	0.35%	NSR
MJAZRC011	18	13	31	245ppm	0.16%	177ppm	0.58
MJAZRC012	13	28	41	0.12%	0.32%	924ppm	0.45
MJAZRC015	10	31	41	376ppm	0.16%	251ppm	0.14
MJAZRC016	18	6	24	942ppm	0.26%	0.12%	NSR
MJAZRC017	5	25	30	596ppm	0.24%	200ppm	NSR
MJAZRC019	14	4	18	0.35%	0.76%	0.87%	0.27
MJAZRC020	16	10	26	280ppm	0.15%	115ppm	1.37
MJAZRC021	13	26	39	570ppm	0.15%	0.11%	0.37
MJAZRC023	21	20	41	0.12%	0.27%	365ppm	1.35
MJAZRC025	7	13	20	300ppm	0.15%	200ppm	0.27
MJAZRC026	23	7	30	254ppm	0.16%	232ppm	0.15
MJAZRC027	7	29	36	400ppm	0.27%	372ppm	NSR
MJAZRC028	14	11	25	287ppm	0.11%	267ppm	0.53
MJAZRC029	12	12	24	251ppm	0.14%	223ppm	NSR

Hole No	Interval (m)	From (m)	To (m)	Cu (pXRF)	Pb (pXRF)	Zn (pXRF)	Au ppm
MJAZRC029	3	34	37	648ppm	0.55%	475ppm	0.42
MJAZRC030	4	36	40	189ppm	0.13%	369ppm	0.14
MJAZRC030	3	69	72	0.11%	0.29%	0.47%	0.23
MJAZRC032	6	11	17	428ppm	0.15%	326ppm	NSR
MJAZRC033	10	47	57	885ppm	0.16%	635ppm	0.34
MJAZRC039	12	8	20	440ppm	0.26%	278ppm	0.32
MJAZRC040	32	13	45	476ppm	0.19%	280ppm	1.32
MJAZRC041	12	54	66	28ppm	352ppm	0.33%	0.22
MJAZRC043	6	16	22	219ppm	0.19%	369ppm	NSR
MJAZRC043	11	43	54	200ppm	0.10%	0.20%	0.38
MJAZRC044	11	14	25	335ppm	0.17%	388ppm	0.28
MJAZRC048	5	12	17	290ppm	0.15%	56ppm	NSR
MJAZRC049	8	24	32	241ppm	0.30%	200ppm	NSR
MJAZRC050	7	11	18	236ppm	0.15%	238ppm	NSR
MJAZRC050	6	33	39	105ppm	0.15%	115ppm	0.66
MJAZRC051	16	11	27	81ppm	0.10%	236ppm	NSR
MJAZRC052	11	11	22	245ppm	0.15%	319ppm	0.13
MJAZRC054	10	67	77	NSI	141ppm	0.59%	0.1
MJAZRC055	11	19	30	188ppm	100ppm	0.13%	0.01
MJAZRC056	10	26	36	144ppm	116ppm	0.17%	NSR
MJAZRC058	16	24	40	449ppm	58ppm	0.22%	NSR
MJAZRC060	7	35	42	245ppm	0.14%	137ppm	NSR
MJAZRC061	8	60	68	648ppm	323ppm	0.25%	0.33
MJAZRC065	8	20	28	167ppm	0.15%	112ppm	0.32
MJAZRC066	5	36	41	115ppm	0.24%	98ppm	0.15
MJAZRC067	9	16	25	130ppm	0.10%	139ppm	NSR
MJAZRC068	4	41	45	403ppm	0.24%	330ppm	0.16
MJAZRC070	5	33	38	213ppm	0.24%	234ppm	0.8
MJAZRC073	31	22	53	196ppm	552ppm	0.21%	NSR
MJAZRC075	12	18	30	186ppm	555ppm	0.19%	NSR

**\*Notes**

**>2m @ >0.1% Cu, Pb or Zn with maximum 2m internal dilution. NSR - No significant result**

**Au is reported within the base metal intersection**

**No Ag reported**

**Intersections may partially overlap previously reported Au-only intersections (Refer ASX release dated 23 June 2017)**

Table 3. Historic results – Section A-B  
(conventional laboratory assays)

Section	Hole ID	Weathering Zone	From (m)	To (m)	Interval (m)	Au ppm	Ag ppm	Cu ppm	Pb ppm	Zn ppm
AB	CWRD180	Fresh	76	100	24	0.09	1.9	363	958	7449
AB	CWRD180	incl	87	89	2	0.68	16	2685	7100	54250
AB	CWRD180	Fresh	105	116	11	0.3	3.4	809	1374	4350
AB	CWRD180	Fresh	137	141	4	0.11	1.5	190	1024	3225
AB	CWRD180	Fresh	145	147	2	0.08	0.5	123	1780	2900
AB	CWRD180	Fresh	154	157	3	1.96	4.9	1737	3349	17860
AB	CWRD180	Fresh	161	166	5	0.08	1	144	200	2510
AB	CWRD180	Fresh	172	174	2	0.01	0	52.5	15	4550
AB	CWRD180	Fresh	182.5	184	1.5	0.21	1	275	1167	16267
AB	CWRD180	Fresh	188	193	5	0.15	0	37	197	1561
AB	87CRC103	Fresh	65	83	18	1.96	na*	1544	3554	na
AB	87CRC060	Transition	53	61	8	5.13	na	4103	5623	na
AB	87CRC060	Fresh	61	68	7	3.87	na	5700	3116	na
AB	87CRC053	Oxide	30	42	12	0.95	na	5055	2720	na
AB	86CRC036	Oxide	20	36	16	2.19	na	299	2444	na
AB	87CRC061B	Oxide	36	45	9	5.24	na	4092	4743	na
AB	86CRC001	Oxide	8	14	6	2.08	6.5	224	738	84
AB	86CRC001	Oxide	18	24	6	4.81	3.7	1087	6733	269
AB	86CRC011	Oxide	0	11	11	0.65	na	399	1103	na

Note: \* not assayed

### Table 3. JORC Code, 2012 Edition

#### Section 1 Sampling Techniques and Data

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

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 1 m 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>	<p>In 2017 the deposit was sampled by reverse circulation (RC) drilling - a total of 75 holes for 3,146 metres.</p> <p>RC drilling was sampled on 1m intervals.</p> <p>The deposit was sampled by Diamond Drilling – a total of 5 holes for 228.5 metres, for the purposes of geological observation, geotechnical assessment, metallurgical testing and assaying.</p> <p>Routine QAQC samples for gold analyses were inserted in the RC sample strings at the rate of 5%, comprising gold standards and blanks (CRM's or Certified Reference Materials) and coarse blanks (barren chip samples).</p> <p>RC field duplicate samples were taken at a rate of one every twenty samples.</p> <p>Routine QAQC samples for silver, copper, lead and zinc analyses were inserted in the pulp sample strings at the rate of 5%, comprising a standard and blank (CRM's or Certified Reference Materials)</p> <p>Sampling practice is appropriate to the geology and mineralisation of the deposit and complies with industry best practice.</p> <p>The deposit was also sampled by historic RC drilling in the late 1980's and 1990's – a total of 215 holes for 12,782 metres were included in the resource estimate. Samples were taken at one metre and two metre intervals.</p> <p>RC/DD hole CWRD180 was drilled in 1991 by Battle Mountain (Australia) Inc with a pre-collar to 60.8m and NQ core to 225.5m, and analysed in part for gold and a range of base metals.</p>
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</li> </ul>	<p>RC drilling was conducted with a modern track mounted drill rig utilising high pressure and high volume</p>



## Criteria

## JORC Code explanation

*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.).*

## Commentary

compressed air and a 140mm (5.5") diameter face sampling percussion hammer.

Diamond coring was undertaken with a modern truck mounted rig and industry recognised quality contractor. Core was drilled at HQ size (63.5mm) from surface to end of hole using the triple tube method to improve recovery in soft ground encountered near surface.

RC drilling in the late 1980's and 1990's was undertaken by a series of different contractors using equipment in common use at the time. Early programs (1980's) used a combination of rotary and hammer bits dependent on the hardness of the ground – during this era RC hammers were in transition from crossover-sub type hammers to face sampling hammers – details of the specific hammer types and hole diameters are not available in the original drill logs referenced. RC holes drilled in the 1990's are likely to have used face sampling hammers.

RC/DD hole CWRD180 was drilled in 1991 by Battle Mountain (Australia) Inc with a pre-collar to 60.8m and NQ core to 225.5m. The RC precollar was 3.5" diameter (approx. 88mm).

RC sample recovery and sample condition (dry, moist or wet) was visually logged on the original drill logs and transferred to the digital drill hole database. Out of a total of 3146 RC samples, 72 were logged as moist, 27 wet and one with no sample return.

Diamond coring was conducted using triple tube to maximize the recovery.

Chip samples were preserved for all of the 75 RC holes drilled in 2017.

Diamond core recovery was measured for each run and calculated as a percentage of the drilled interval.

There has been no assessment of core recovery and grade.

No details available for RC/DD hole CWRD180

*Drill sample recovery*

- *Method of recording and assessing core and chip sample recoveries and results assessed.*
- *Measures taken to maximise sample recovery and ensure representative nature of the samples.*
- *Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.*

## Criteria

## JORC Code explanation

## Commentary

### Logging

- *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.*
- *Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography.*
- *The total length and percentage of the relevant intersections logged.*

All Core and RC chips were geologically logged. Lithology, veining, oxidation and weathering are recorded in the geology table of the drill hole database.

RC logging is qualitative and descriptive in nature.

Geotechnical logging of 2017 core is quantitative in nature and was undertaken by an external consultant.

All core was photographed.

RC/DD hole CWRD180 – logging was conducted on paper logs and transferred to digital form.

### Sub-sampling techniques and sample preparation

- *If core, whether cut or sawn and whether quarter, half or all core taken.*
- *If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry.*
- *For all sample types, the nature, quality and appropriateness of the sample preparation technique.*
- *Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.*
- *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.*
- *Whether sample sizes are appropriate to the grain size of the material being sampled.*

2017 Core was quarter sawn and sub-sampled on 1m intervals for assay to be used in selection of intervals for metallurgical test work.

2017 RC samples were sub-sampled using a rig mounted cone splitter to produce original and duplicate split samples of approximately 3kg weight, a standard industry practice.

The splitter was routinely cleaned at the end of each drill rod (6m) or as needed if damp material clung to the splitter.

Duplicate samples were collected when splitting RC samples to assess the sampling precision.

Reference chips for XRF analysis were air dried prior to the XRF work.

Sample size assessment was not conducted but used sampling size typical for WA gold deposits.

Details of the splitter types used for historic RC drilling are generally not available but 1980's – 1990's holes most likely used multi-stage riffle splitters. Reports indicate historic one metre samples split for assay weighed  $\geq$  2kg. In some holes, samples were composited over 2m intervals for a lab sample of 4kg weight.

RC/DD hole CWRD180: RC samples were submitted to the lab for 2m intervals, with no detail as to sub sampling methods. Core is presumed to

## Criteria

## JORC Code explanation

## Commentary

*Quality of assay data and laboratory tests*

- *The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.*
- *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.*
- *Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.*

have been split by sawing.

RC and diamond core samples were prepared and assayed at NATA accredited ALS Minerals laboratory in Perth.

RC samples were weighed, dried, and pulverized in total to nominal 85% passing 75 micron (Method PUL23), and a 50g sub sample assayed for gold by fire assay with an AAS finish (method Au-AA26).

Core samples were weighed, dried, crushed and thereafter pulverized and assayed as for RC samples.

RC and core pulps (nominal 85% passing 75 micron) were analysed by digestion in four acids (including HF), method GEO-4ACID) and ICP-AES finish, method ME-ICP61 (ppm levels) or ME-OG62 (% levels for higher grade samples). Limits of detection for ME-ICP61 were Ag (0.5ppm), Cu (1ppm), Pb (2ppm), Zn (2ppm).

In addition to the Company QAQC samples included within the batches, the laboratory included its own CRM's, blanks and duplicates with every batch.

Historical RC samples were assayed for Au by a mixture of aqua regia/AAS and fire assay/AAS methods, predominantly by SGS Laboratory but including Analytical Services and Genalysis. Sample preparation included disc pulverisation or mixer-mill stages. Cu and Pb were analysed by aqua regia digest and AAS. QAQC details are not reported, but reports indicate referee laboratory checks were made, and that fire assays compared with aqua-regia/AAS to an acceptable level.

RC/DD hole CWRD180: Assays of RC and core samples are presumed to have been completed at Minlab in Perth using aqua regia/AAS for gold with some fire assay checks, and AAS for base metals – exact confirmation is not defined.

Portable XRF determinations on chips were made by Portable XRF Services (Perth) using a Bruker S1 Titan 800

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Criteria	JORC Code explanation	Commentary
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>	<p>instrument, 60 second reading time. Calibrations routinely checked against CRM's. Assays are considered partial.</p> <p>2017 gold assays were documented by professional staff members of Minjar Gold Pty Ltd and independently verified by Ravensgate Mining Industry Consultants, on behalf of Kalamazoo Resources Limited.</p> <p>All gold assay data were received in electronic format from ALS, checked and verified by Minjar Gold and merged into a proprietary database.</p> <p>All Ag, Cu, Pb, Zn assay data were received in electronic format from ALS, checked and verified by professional staff members of Kalamazoo Resources and merged into a proprietary database.</p> <p>No assay adjustment was applied.</p> <p>Historic assays were recorded on hardcopy drill logs and a digital database was compiled in the 1990's. Recent validation of 10% of the primary drill hole assays has shown that the database currently in use is accurate.</p> <p>A statistical comparison of 2017 gold assays and historic gold assays has indicated negligible difference between the two assay populations in the grade range of relevance to economic extraction (0.4-12 g/t Au. Historic mean gold grades were slightly conservative compared with the 2017 mean grades.</p> <p>All portable XRF analyses received in digital format.</p> <p>RC/DD hole CWRD180: no direct verification is possible – annual report copies of drill logs, down hole surveys and assay files were sighted.</p>
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>	<p>All drill hole collars were initially pegged using RTK differential GPS and then re-surveyed post drilling, to x-y accuracy of 2cm and height (z) to +/- 10cm (relative to AHD). Down hole surveys were conducted using a north seeking gyro tool to avoid magnetic interference.</p> <p>All collar location data is in UTM grid</p>



## Criteria

## JORC Code explanation

## Commentary

### *Data spacing and distribution*

- *Data spacing for reporting of Exploration Results.*
- *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.*
- *Whether sample compositing has been applied.*

### *Orientation of data in relation to geological structure*

- *Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.*
- *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.*

### *Sample security*

- *The measures taken to ensure sample security.*

(MGA94 Zone 50).

Collars were measured relative to two local control stations installed and verified by a licensed survey group.

Historic collars where identifiable were surveyed as above using RTK differential GPS. 148 holes were surveyed and their locations in MGA94 compared with transformed data from the original database, showing that original database locations were within 2-3 metres of the 2017 survey locations. Coordinates and RLs for historic holes not surveyed were adopted from the database, and also verified against historic drill collar maps.

Historic holes in general were not surveyed down hole. After comparison with 2017 gyro surveyed holes an average deviation in azimuth and dip was applied to the historic holes.

RC/DD hole CWRD180: no direct verification is possible – annual report copies of down hole surveys and original local grid co-ordinates were sighted.

Most holes are spaced at approximately 20m line spacing by 10-20m along lines.

The data spacing is sufficient to establish geological and grade continuity for the Indicated and Inferred Mineral Resource classifications applied.

No sample compositing has been applied for 2017 drilling; historic drilling contains some 2m compositing from 1m samples.

Drill lines are oriented approximately at right angles to the currently interpreted strike of known mineralisation.

No bias is considered to have been introduced by the existing sampling orientation.

2017 samples were secured in closed polyweave sacks and bulk-bags for direct delivery via a registered transport

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Criteria	JORC Code explanation	Commentary
<i>Audits or reviews</i>	<ul style="list-style-type: none"> <li><i>The results of any audits or reviews of sampling techniques and data.</i></li> </ul>	<p>company to the laboratory.</p> <p>Data quality for 2017 drilling has been reviewed by Minjar Gold Pty Ltd, and Ravensgate Mining Industry Consultants on behalf of Kalamazoo Resources Limited. Historic data quality has been reviewed jointly by Kalamazoo Resources and Ravensgate Mining Industry Consultants and found to be adequate for use in the Mineral Resource estimate.</p>

## Section 2 Reporting of Exploration Results

Criteria	JORC Code explanation	Commentary
<i>Mineral tenement and land tenure status</i>	<ul style="list-style-type: none"> <li><i>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.</i></li> <li><i>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.</i></li> </ul>	<p>Results reported are from the A-Zone Prospect, located within M59/474, a granted mining lease within the Snake Well Project area, owned 100% by Kalamazoo Resources Limited.</p> <p>Kalamazoo has reached agreement with Minjar that provides Minjar with a first right to treat any further ore from the Mixy Lode and/or the A-Zone deposit, at the Minjar plant, on terms to be agreed. This new Ore Purchase Agreement replaces the Ore Sales and Purchase Agreement dated 31 January 2017.<sup>1</sup></p> <p>M59/474 is in good standing and subject to completion of all normal pre-mining permitting requirements no impediment is foreseen to obtaining a licence to operate.</p>
<i>Exploration done by other parties</i>	<ul style="list-style-type: none"> <li><i>Acknowledgment and appraisal of exploration by other parties.</i></li> </ul>	<p>Historical exploration of the A-Zone was undertaken by Roebuck Resources, Battle Mountain, CRA Exploration and Giralia Resources.</p> <p>Giralia published a Mineral Resource estimate in 2004 for A-Zone.</p>
<i>Geology</i>	<ul style="list-style-type: none"> <li><i>Deposit type, geological setting and style of mineralisation.</i></li> </ul>	<p>A-Zone is a shear hosted Archean gold deposit located within the Talling Greenstone Belt of the western</p>

<sup>1</sup> See ASX Release dated 31 January 2017

## Criteria

## JORC Code explanation

## Commentary

### *Drill hole Information*

- 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:
  - easting and northing of the drill hole collar
  - elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar
  - dip and azimuth of the hole
  - down hole length and interception depth
  - hole length.
- 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.

Murchison Province.

All requisite drill hole information for 2017 drilling is tabulated in Table 1 of this announcement and in previous ASX releases dated 29th March 2017 and 11th April 2017, and 23 June 2017.

Validation of historic drill hole data has been described in the preceding section. Collar locations have been shown in the accompanying figures and the location down hole and gold, silver, copper, lead and zinc tenor of a number of historic intersections are shown in the accompanying cross sections.

### *Data aggregation methods*

- 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.
- 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.
- The assumptions used for any reporting of metal equivalent values should be clearly stated.

Drill hole gold intersections for 2017 drilling have been previously reported in ASX releases dated 29th March 2017 and 11th April 2017.

Data aggregation used in the Mineral resource estimate was described in the ASX release 2<sup>nd</sup> June 2017.

### *Relationship between mineralisation widths and intercept lengths*

- These relationships are particularly important in the reporting of Exploration Results.
- If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.
- 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').

No metal equivalent reporting has been applied.

Mineralisation has been interpreted and modelled in 3D using Vulcan software prior to block modelling and Mineral Resource estimation.

Base metal assays were originally completed within intervals interpreted for gold modelling (see ASX release 23 June 2017). Results reported here are indicative in nature (semi-quantitative) and reported from areas other than the gold modelled zones.

### *Diagrams*

- Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should

Included elsewhere in this release.

Criteria	JORC Code explanation	Commentary
<i>Balanced reporting</i>	<p><i>include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.</i></p> <ul style="list-style-type: none"> <li>• <i>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.</i></li> </ul>	Representative high and low base metal values are reported in Table 1 and 2 and a relevant cross section elsewhere within this release.
<i>Other substantive exploration data</i>	<ul style="list-style-type: none"> <li>• <i>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.</i></li> </ul>	<p>Metallurgical testing of Oxide material from composite samples of drill core yielded 96.5% recovery of gold at minus 106 micron grainsize and low cyanide and lime consumptions (&lt;1 kg /tonne).</p> <p>Tests on RC chips from the transitional and fresh zones (known to contain base metal sulphides) yielded low Au recoveries of 25.4% and 28.8% respectively, indicating an alternative extraction method is preferred over conventional cyanidation.</p>
<i>Further work</i>	<ul style="list-style-type: none"> <li>• <i>The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).</i></li> <li>• <i>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</i></li> </ul>	Future work may include deeper RC and core drilling for base metals away from the currently known gold resource.