

Wednesday, 19<sup>th</sup> October 2022

## Excellent metallurgical results support development potential at West Desert

- Test work on oxide ores West Desert shows outstanding metallurgical results, including;
  - High recoveries of zinc (89.9%) and copper (78%) using traditional sulphuric acid leaching
  - Low acid consumption with coarse particle sizes supports potential favourable economics for heap leach processing
- Flotation test work on high-grade zinc sulphide ores shows 99.4% recovery of zinc
- New test work is consistent with successful historical test work which confirmed the excellent metallurgical properties of the underground sulphide dominant (fresh) ores
- The results support the continued study for a combined open pit and underground development opportunity at West Desert

American West Metals Limited (**American West** or **the Company**) (ASX: AW1) is pleased to announce excellent results from metallurgical test work on the near surface and sulphide ores at the West Desert Project in Utah (**West Desert** or **the Project**).

**Dave O'Neill, Managing Director of American West Metals commented:**

*"We are excited to announce the results of key metallurgical test work completed on recent drill holes from West Desert. The results demonstrate that the mineralisation from a potential open pit and underground mining operation at West Desert is likely to be amenable to commercial processing."*

*"The test work confirmed that traditional acid leach processing can generate very high metal recoveries from the near surface oxide ores, which would be mined in an open pit operation. This is a breakthrough for the project and will help us unlock the full potential of the large orebody at West Desert."*

*"The new work has also further validated the known excellent metallurgical properties of the sulphide ores in the high-grade Main Zone of the West Desert Deposit with almost 100% recovery of zinc."*

*"West Desert is blessed with very simple and well understood ore mineralogy with very low deleterious elements. This work has taken a significant step in derisking the project and increasing the available resource tonnages."*

*"We believe this will give us outstanding development optionality which will allow a staged mining strategy that includes both open pit and underground operations."*

*"Work continues on the maiden JORC compliant resource estimate for West Desert, which we hope to be able to provide an update on shortly. "*

## DEMONSTRATION OF OPEN PIT POTENTIAL

A number of historical metallurgical programs have been completed on the West Desert ores and all have demonstrated excellent metallurgical properties and the ability to produce high quality zinc and copper concentrates. However, the majority of these tests were focused on the sulphide portion of the orebody.

A single test on the oxide material was completed in 2009 by Kappes, Cassiday and Associates (KCA) in Reno, Nevada. This work had shown promising results, with excellent recoveries of zinc and copper, and with relatively low acid consumption. This was recognised as a potential pathway to economic extraction of the oxide ores at West Desert.

The aim of the latest phase of metallurgical work was to confirm the historical work by KCA and to understand and optimise the process further. The test program was completed by BASE Metallurgical Laboratories of Kamloops, BC, Canada.

The recent test work was completed on drill core samples from the 2022 diamond drilling program, and has shown outstanding results that demonstrate the potential viability of the oxide and transitional ores to traditional processing techniques.

The acid leach test work on a range of different sized oxide material has produced up to 89.9% recovery for zinc, 78% recovery for copper, and with relatively low acid consumptions.

Testing of high-grade sulphide ores from the Main Zone of the West Desert Deposit has confirmed historical results and produced exceptional recoveries of over 99% for zinc using simple sulphide flotation.

Heap leaching is widely used as a low cost and simple processing technique and can be used to recover very low concentrations of base and precious metals. The amenability of the oxide ores to this process method unlocks the near surface potential of the West Desert Deposit and supports the potential for a staged open pit and underground mining scenario.

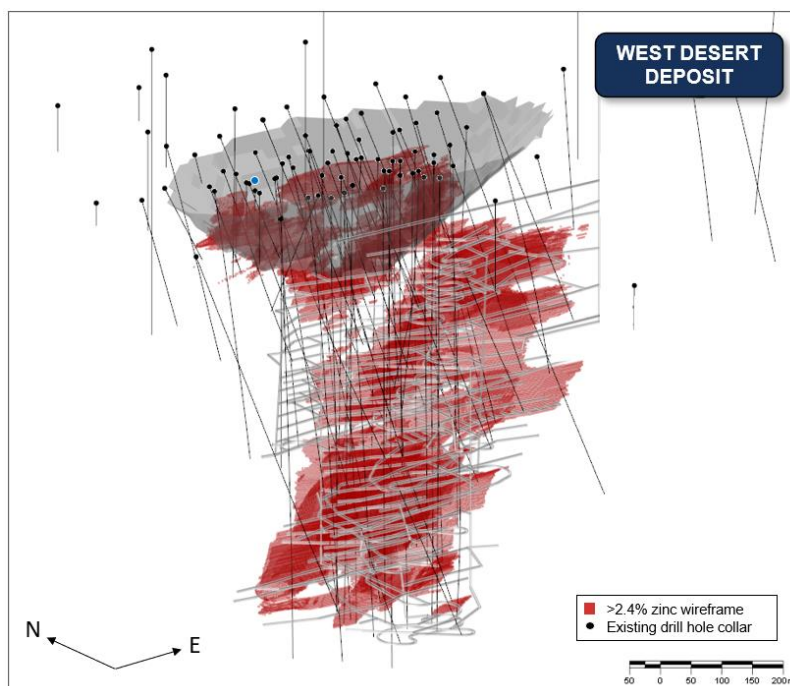


Figure 1: Conceptual open cut and underground mine development using the 2014 PEA data for West Desert

## ORE TYPES AND SAMPLE SELECTION

The drill holes selected for the metallurgy program are located in key areas defined by pit shell analyses on the existing PEA resource (Figure 1 & 2). The drilling targeted the near surface and potential open pit zones and acquired oxide, transitional, and fresh ore samples (Table 1).

Composite	Hole ID	From (m)	To (m)	Width	Zn %	Cu %	Au g/t	Ag g/t	In g/t
A	WD22-01	30.02	51.66	21.64	0.77	0.00	0.0	1.32	0.35
B	WD22-02	74.52	85.96	11.44	6.46	0.17	0.22	3.92	90.73
C	WD22-02	99.66	110.03	10.64	2.52	0.36	0.15	14.31	33.82
D	WD22-03	372.60	377.63	5.03	27.12	0.02	0.01	2.46	238.94

Table 1: Summary of drilling intersections used for the metallurgical test program.

### Composite A description

Drill hole WD22-01 provided core from an area of massive dolomite with vein and disseminated style mineralisation identified in the geological logging. The rocks show strong weathering and contain high levels of carbonate and carbon.

The sample interval contains generally low zinc and other metal grades, and XRD analysis confirms the presence of iron oxides and hemimorphite (zinc silicate). Hemimorphite is an important secondary zinc ore type and is formed in the weathered parts of sphalerite rich orebodies. Zinc silicates can be more challenging to liberate metallurgically than zinc carbonates.

Ore classification - Oxide

### Composite B description

Composite B is sourced from drill hole WD22-02 and is strongly oxidised. The interval is logged as being structurally bound and contains magnetite skarn mineralisation hosted within minor limestone and dolomite.

The interval contains ore grade zinc with copper, silver, gold and indium present as important credits. XRD confirms that the main ore mineral is smithsonite (zinc carbonate), which is known to be highly amenable to leaching and can produce a high quality and sought-after zinc fertilizer product.

Ore Classification - Oxide

### Composite C description

Composite C was also sourced from drill hole WD22-02 and the interval is located further downhole to Composite B. The material appears moderately to strongly weathered in places and contains visible zinc and copper oxide minerals. The host rocks consist of a mix of dolomite, massive magnetite skarn and porphyry intrusives.

XRD confirmed the presence of smithsonite and surprisingly, did not detect the presence of azurite and malachite (both were visually logged). The marginally higher copper grades in this interval suggest that some of these minerals are present.

Ore Classification – Upper Transitional

### Composite D description

The samples for Composite D were sourced from the main zone of the West Desert Deposit and were used as a comparison on the oxide/transitional samples, and to validate historical sulphide metallurgical test work.

The interval contains massive zinc sulphides hosted within magnetite skarn. Interestingly, the XRD shows the presence of very minor smithsonite which likely occurs within altered micro fractures and late fault related slickensides.

Ore Classification - Fresh

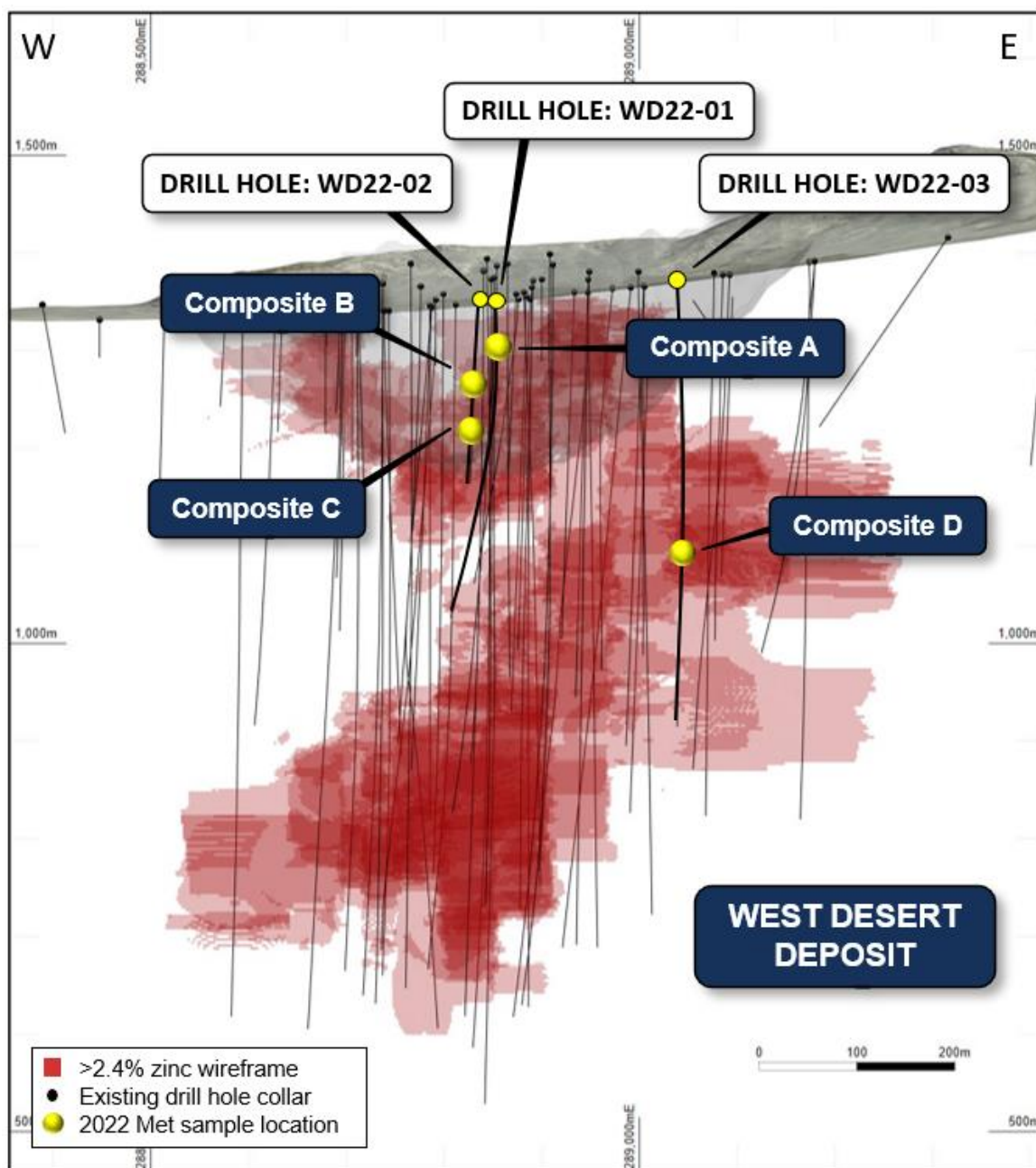


Figure 2: Long section of the West Desert Deposit showing sample locations for the metallurgical test work.



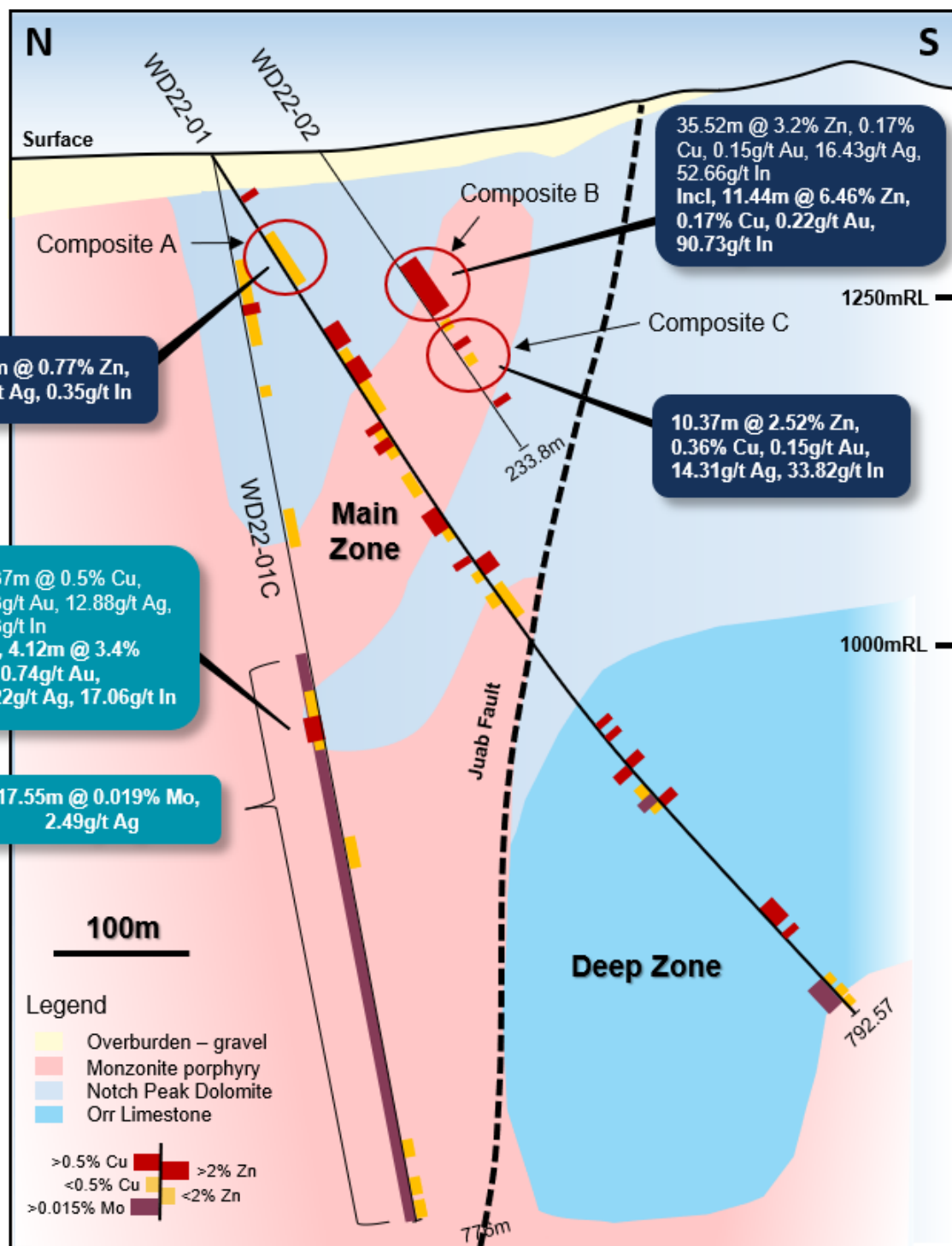


Figure 3: Schematic section at 288840E showing sample intervals (red circles) for the metallurgical test work.

## SAMPLE PREPARATION

Once the intervals were combined into composite samples A-D, they were prepared for test work using the below sequence.

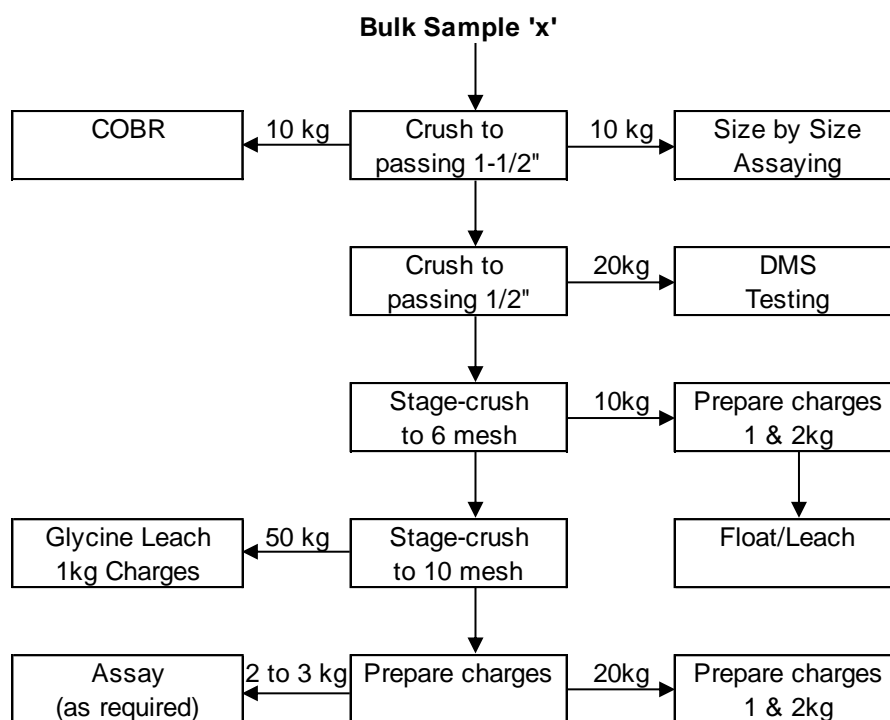


Figure 4: Sample preparation flow sheet

After preparation, each composite was then re-assayed to generate feed grades (starting point for grade calculations throughout the testing process).

Composite	Zn %	Cu %	Au g/t	Ag g/t	S %	C %
A	0.61	0.00	0.01	1.6	0.03	11.00
B	5.47	0.14	0.12	3.5	0.27	1.23
C	2.83	0.31	0.11	8.0	0.30	2.00
D	23.6	0.02	0.02	2.1	14.70	0.89

Table 2: Feed sample assays for Composites A, B, C and D.

Each composite was assayed with X-Ray Diffraction (XRD) to determine the mineralogy of the samples (Table 3).

Of interest is the presence of hemimorphite (zinc silicate) in Composite A, and the presence of smithsonite (zinc carbonate) in Composite B and C. This is an important difference and has likely contributed to the overall metallurgical performance between the samples.

Also of note is that Composites A, B and C contain no sphalerite (zinc sulphide), which suggests the total breakdown of the primary ores to secondary zinc minerals.

Mineral	Content %			
	Composite A	Composite B	Composite C	Composite D
Ankerite	15.3	-	-	-
Calcite	39.4	-	0.7	-
Clinocllore	-	2.5	1.8	-
Dolomite	36.5	3.7	15.5	3.5
Geothite	2.4	6	12.4	-
Hematite	-	3.6	8.6	-
Hemimorphite	0.2	0.6	0.5	-
Jarosite	-	0.4	-	-
Kaolinite	-	-	2.7	-
K-Feldspar	-	1	16	-
Maghemite	-	3.1	-	-
Magnetite	-	63.4	22.1	53.8
Quartz	0.4	5.6	18.7	0.3
Smithsonite	-	7.8	1	0.4
Serpentine	5.8	-	-	-
Sphalerite	-	-	-	42
Talc	-	2.3	-	-
Total	100	100	100	100

Table 3: XRD assay mineralogy of the composite samples



## METALLURGICAL TEST PROGRAM

A range of tests were completed on the composites and included sulfuric acid-leach coarse ore bottle roll (COBR), ammonia leaching, sulphide flotation and heavy liquid separation (HLS). Ammonia leaching and HLS are not described below due to below average performance of the techniques on the composite samples.

### **Acid Leach Coarse Ore Bottle Roll Tests**

This technique has evaluated coarse ore bottle roll (COBR) sulphuric acid leaching for heap leach amenability of all four composite samples.

The COBR tests were conducted by placing crushed ore material at targeted grind sizes in a bottle on rollers. The bottle is rolled intermittently with different time intervals. A number of different particle sizes were used including very coarse 10 to 33mm particles to better understand real world heap leaching potential.

The results of the COBR show excellent recoveries for zinc for Composites A, B and C. However, due to the high carbonate content of Composite A, the acid consumption and time required to achieve the high recoveries is excessive and likely uneconomic. COBR testing on Composite D was ineffective.

Tests were also completed on Composites B and C to determine the recovery of copper using the same methods. Both samples respond well despite the relatively low feed grades between 0.18 and 0.41% Cu (Table 5).

Importantly, the net acid consumption for Composites B and C is very low relative to most zinc oxides, and appears to be a function of particle size. This presents as a pathway to the potential economic extraction of zinc and copper from the oxide ores at West Desert.

Composite	Test ID	Grind Size Mm	Feed Grade Zn %	H <sub>2</sub> SO <sub>4</sub> Cons. kg/t	Final PLS Zn, ppm	Zn Rec %	Leach Tail Zn %
A	A-02	1.2	0.67	461	1562	80.6	0.13
B	A-06	1.2	6.69	88.5	16,744	89.9	0.68
C	A-07	1.2	3.16	106	6,888	72.7	0.86
B	A-12	33	5.49	54.9	15,930	61.8	2.10
C	A-13	33	2.80	39.2	6,090	46.5	1.50
B	A-14	10	5.48	49	21,380	80.8	1.05
C	A-15	10	2.84	49	6,950	50.8	1.40

Table 4: Summary of COBR test results for zinc extraction on Composites A, B and C.



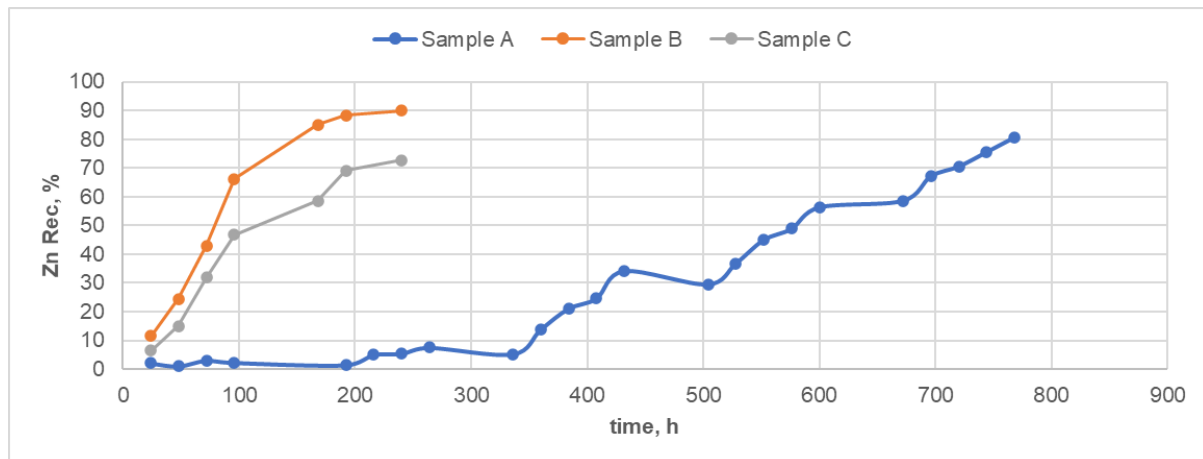


Figure 5: COBR recovery curves for Composites A, B and C (Labelled Sample A, B and C respectively) showing percentage of zinc recovery over time in hours (at 1.2mm particle size)

Composite	Test ID	Grind Size Mm	Feed Cu %	Final PLS Cu, ppm	Cu Rec %	Leach TI Cu %
B	A-06	1.2	0.18	296	<b>60.1</b>	0.07
C	A-07	1.2	0.37	759	<b>67.7</b>	0.12
B	A-08	0.075	0.19	232	<b>68.2</b>	0.06
C	A-09	0.075	0.41	516	<b>78.0</b>	0.09

Table 5: Summary of COBR test results for copper extraction on Composites B and C.

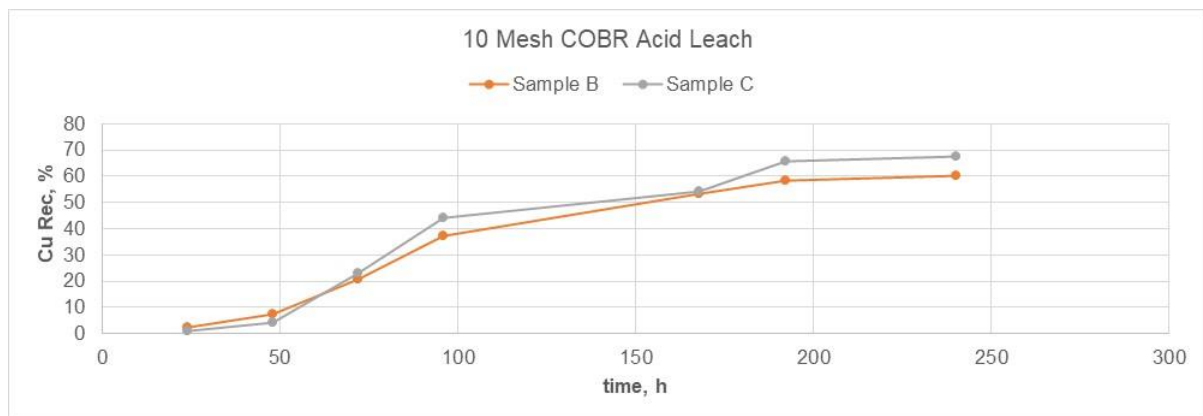


Figure 6: COBR recovery curves for Composites B and C (Labelled Sample B and C respectively) showing percentage of copper recovery over time in hours (at 1.2mm particle size)

### ***Rougher Flotation Kinetics (Sulphide flotation)***

Testing was completed on all four composite samples. Like most tests, each 2kg of sample was reduced to 75µm. Two separate processing pathways were followed;

- Composites A and D: after being ground, each composite was conditioned to approximately pH of 11.0 for 2 minutes and additional 5 minutes for conditioning with CuSO<sub>4</sub> with SIPX acting as a collector. Rougher kinetics concentrates were collected at cumulative timed intervals of 1, 2, 4, 6 minutes and each product was filtered and assayed for Cu, Zn, Au, Ag, S to produce a mass vs recovery relationship.
- Composites B and C: after being ground with lime and ZnCN in the mill, each composite was conditioned to pH 9.0 with addition of 5100 collector in the Cu rougher circuit. Prior going to Zn circuit, conditioning of pH to 10 approx. 11.0 and addition of CuSO<sub>4</sub> for total of 7 minutes was required, followed by Zn oxide circuit by conditioning for a period of 10 minutes to pH 11.0 with addition of amine collectors and NaSH for sulphadisation. Rougher kinetics concentrates were collected at cumulative timed intervals accordingly to their individual circuit and each product was filtered and assayed for Cu, Zn, Au, Ag, S to produce a mass vs recovery relationship.

As expected, due to very little to no sulphide minerals present in Composites A, B and C, below satisfactory recoveries were achieved for zinc. Oxide flotation by sulphadisation using NaHS was unsuccessful; similarly, no effect was observed by using amine collectors.

Flotation testing on Composite D was outstanding and produced a recovery of 99.4% with a Zn feed grade of 23.6%.

A summary of the results is shown below in Table 7.

Composite	ID	Feed Grade Zn %	Mass Rec %	Con Grade Zn %	Recovery Zn %	Float Tail Zn %
A	R04	0.67	9.89	0.67	10.6	0.62
B	R05	6.69	5.15	9.71	8.97	5.28
C	R06	3.16	6.22	4.15	8.85	2.76
D	R07	23.6	47.3	<b>49.6</b>	<b>99.4</b>	0.27

*Table 7: Flotation results for Composites A-D. Note the extremely high recovery for the massive sphalerite (zinc sulphide) dominant Composite D.*



## DEVELOPMENT IMPLICATIONS OF METALLURGICAL RESULTS

The metallurgical test program has met or exceeded the performance of the historical test work and has confirmed the processing viability of the zinc-copper oxide and transitional ores at West Desert.

The successful metallurgical results are driven by the simple and favourable ore mineralogy of the West Desert Deposit.

Sulphuric acid leaching / COBR has emerged as the preferred processing technique for the near surface ores and has demonstrated repeatability at various particle sizes.

Key points that summarise the case for potential economic extraction of zinc and copper at West Desert, include:

- Similar results were achieved between the historical KCA acid leach test work and the 2022 BASE metallurgical program.
  - KCA acid leach tests results ranged between **60%-94%** Zinc recovery.
  - BASE acid leach tests results ranged between **73%-90%** Zinc recovery.
- Composite B and C acid leach results with a coarse particle size (1.2-33mm) displayed excellent recoveries of zinc up to **88.9%** at moderate grades of 2.8% Zn to 5.5% Zn, respectively.
- Limited tests on copper extraction using acid leach for Composites B and C produced recoveries up to **78%** at low copper grades.
- Composite D produced a **99.4% Zinc** recovery by sulphide flotation, exceeding historical test results.

Exploitation of the oxide zones at West Desert will give development optionality and is expected to add significant additional mine life to the project. Prior mining and economic studies at West Desert did not include this material, being purely focused on the sulphide ores and the generation of a magnetite iron-ore product.

Preliminary studies on an open pit using the existing 2014 PEA data suggests that the near surface ore could be mined at much lower grades than the underground mine. This development scenario will be updated and assessed in detail in conjunction with the maiden JORC compliant resource estimate.

## FORWARD PROGRAM

The oxide portion of the West Desert deposit requires further technical evaluation supported by additional drilling, mineralogical domaining and continued metallurgical testing.

Further work will focus on optimizing the metal extraction processes further, particularly for the heap leach potential of the oxide classified ores and will include bulk column testing and variability work. Reverse Circulation (RC) drilling will be used to acquire material to develop a robust mineralogical model of the open pit.

Other work will include the recovery of precious metals from the heap leach solutions. The West Desert ores are particularly rich in indium, silver and gold, and recovering these metals will provide useful credits.

Work continues on the maiden JORC compliant resource for West Desert and investors can look forwards to an update in the coming weeks.



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## 2022 DRILL PROGRAM DETAILS

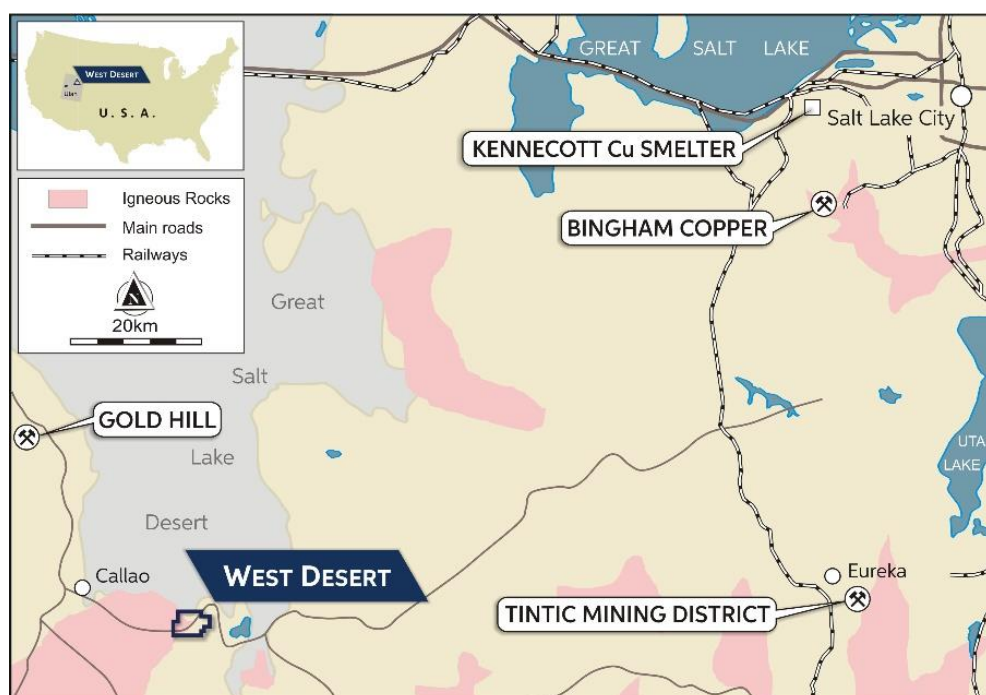
Hole ID	Prospect	Easting	Northing	Depth (m)	Azi	Dip
WD22-01	West Desert	288849	7745308	792.56	182.2	-56.4
WD22-01C	West Desert	288849	7745309	776	184	-78
WD22-02	West Desert	288834	4415234	233.8	181	-52
WD22-03	West Desert	289038	4415272	550	181	-65
WD22-04	West Desert	288990	4415270	754.8	210	-80
WD22-05	West Desert	288810	4415310	739.7	181	-67
WD22-19	West Desert	288395	4414986	628.5	156	-65

Table 8: Drill hole details

## ABOUT THE WEST DESERT PROJECT, UTAH

The West Desert Project is located 160km southwest of Salt Lake City, Utah, within the heart of the Sevier Orogenic Belt which hosts the world class Bingham Canyon copper deposit and Tintic Mining District. The Project now comprises 330 acres of private land, 336 unpatented lode mining claims and a single State Metalliferous Mineral Lease, for a total land holding of approximately 32km<sup>2</sup>.

The West Desert Deposit is 100% owned by American West Metals, and contains a historical and foreign resource (Ni 43-101 compliant) of over **59Mt**, which contains a higher-grade core of approximately **16.5Mt @ 6.3% Zn, 0.3% Cu and 33g/t In** (1.03Mt Zn, 45Kt Cu and 545t In).



This announcement has been approved for release by the Board of American West Metals Limited.

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**ASX Listing Rule 5.12**

The Company has previously addressed the requirements of Listing Rule 5.12 in its Initial Public Offer prospectus dated 29 October 2021 (released to ASX on 9 December 2021) (**Prospectus**) in relation to the West Desert Project. The Company is not in possession of any new information or data relating to the West Desert Project that materially impacts on the reliability of the estimates or the Company's ability to verify the estimates as mineral resources or ore reserves in accordance with the JORC Code. The Company confirms that the supporting information provided in the Prospectus continues to apply and has not materially changed.

This ASX announcement contains information extracted from the following reports which are available on the Company's website at <https://www.americanwestmetals.com/site/content/>:

- 29 October 2021 Prospectus

The Company confirms that it is not aware of any new information or data that materially affects the exploration results included in the Prospectus. The Company confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the Prospectus.

**Competent Person Statement**

The information in this report that relates to Exploration Targets and Exploration Results for the West Desert Project is based on information compiled by Mr Dave O'Neill, a Competent Person who is a Member of The Australasian Institute of Mining and Metallurgy. Mr O'Neill is employed by American West Metals Limited as Managing Director, and is a substantial shareholder in the Company.

Mr O'Neill has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken 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 O'Neill consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.



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## ABOUT US



### ABOUT AMERICAN WEST METALS

**AMERICAN WEST METALS LIMITED** (ASX: AW1) is an Australian company focused on growth through the discovery and development of major base metal mineral deposits in Tier 1 jurisdictions of North America.

We are a progressive mining company focused on developing mines that have a low-footprint and support the global energy transformation.

Our portfolio of copper and zinc projects include significant existing resource inventories and high-grade mineralisation that can generate robust mining proposals. Core to our approach is our commitment to the ethical extraction and processing of minerals and making a meaningful contribution to the communities where our projects are located.

Led by a highly experienced leadership team, our strategic initiatives lay the foundation for a sustainable business which aims to deliver high-multiplier returns on shareholder investment and economic benefits to all stakeholders.



## JORC Code, 2012 Edition – Table 1

### Section 1 Sampling Techniques and Data

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

Criteria	JORC Code explanation	Commentary
<b>Sampling techniques</b>	<ul style="list-style-type: none"> <li>Nature and quality of sampling (eg 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 (eg '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 (eg submarine nodules) may warrant disclosure of detailed information.</li> </ul>	<ul style="list-style-type: none"> <li>The samples and geological data are sourced using Diamond Drilling</li> <li>Sampling and geological intervals are determined visually by geologists with relevant experience</li> <li>The intervals of the core that are selected for assaying are marked up and then recorded for cutting and sampling.</li> <li>The mineralisation at the West Desert Deposit displays classic features and is distinctive from the host and gangue lithologies</li> <li>All intercepts are reported as downhole widths</li> </ul>
<b>Drilling techniques</b>	<ul style="list-style-type: none"> <li>Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).</li> </ul>	<ul style="list-style-type: none"> <li>Diamond Drilling was completed by Major Drilling America Inc. using a LF230 core drilling rig</li> <li>Drilling is completed using PQ and HQT diameter core</li> <li>Downhole directional surveys are completed every 100ft (30.5m)</li> <li>Drill core is oriented using a EZ Gyro</li> </ul>
<b>Drill sample recovery</b>	<ul style="list-style-type: none"> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> <li>Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> <li>Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.</li> </ul>	<ul style="list-style-type: none"> <li>Drill recoveries are recorded by the driller and verified by the logging geologist</li> <li>To minimise core loss in unconsolidated or weathered ground, split tubes are used until the ground becomes firm and acceptable core runs can be achieved</li> <li>No relationship has been determined between core recovery and grade and no sample bias is believed to exist</li> </ul>

Criteria	JORC Code explanation	Commentary
<b>Logging</b>	<ul style="list-style-type: none"> <li>Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.</li> <li>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</li> <li>The total length and percentage of the relevant intersections logged.</li> </ul>	<ul style="list-style-type: none"> <li>Detailed geological logging is carried out on all drill holes with lithology, alteration, mineralisation, structure and veining recorded</li> <li>A preliminary summary log is produced at the rig for daily reporting purposes</li> <li>The logging is qualitative and quantitative</li> <li>The drill core is marked up and photographed wet and dry</li> <li>100% of all relevant intersections and lithologies are logged</li> </ul>
<b>Sub-sampling techniques and sample preparation</b>	<ul style="list-style-type: none"> <li>If core, whether cut or sawn and whether quarter, half or all core taken.</li> <li>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</li> <li>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> <li>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</li> <li>Measures taken to ensure that the sampling is representative of the in-situ material collected, including for instance results for field duplicate/second-half sampling.</li> <li>Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>	<ul style="list-style-type: none"> <li>The core is cut onsite into 1/2 and two 1/4s along the length of the core for assay, qualitative analysis and metallurgical sampling</li> <li>Quality control procedures include submission of Certified Reference Materials (standards), duplicates and blanks with each sample batch. QAQC results are routinely reviewed to identify and resolve any issues</li> <li>Sample preparation is completed at the laboratory. Samples are weighed, dried, crushed to better than 70% passing 2mm; sample was split with a riffle splitter and a split of up to 300g pulverised to better than 85% passing 75µm</li> <li>The sample sizes are considered to be appropriate to correctly represent base metal sulphide mineralisation and associated geology based on: the style of mineralisation (massive and disseminated sulphides), the thickness and consistency of the intersections and the sampling methodology</li> </ul>
<b>Quality of assay data and laboratory tests</b>	<ul style="list-style-type: none"> <li>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</li> <li>For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.</li> <li>Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.</li> </ul>	<ul style="list-style-type: none"> <li>Diamond core samples are assayed at American Assay Laboratories, Reno, Nevada</li> <li>Samples are assayed for Ag, Al, As, B, Ba, Be, Bi, Ca, Cd, Ce, Co, Cr, Cs, Cu, Fe, Ga, Ge, Hf, Hg, In, K, La, Li, Mg, Mn, Mo, Na, Nb, Ni, P, Pb, Rb, Re, S, Sb, Sc, Se, Sn, Sr, Ta, Te, Th, Ti, U, V, W, Y, Zn, Zr using the ICP5AM-48 method</li> <li>Assays with over limits are re-assayed using ore grade ORE-5a analysis</li> <li>Sample are assayed for Au using Fire Assay</li> <li>The assay method and detection limits are appropriate for analysis of the elements require</li> <li>Laboratory QAQC involves the use of internal lab standards using certified reference material (CRMs), blanks and pulp duplicates as part of in-house procedures. The Company also submits a suite of CRMs, blanks and selects appropriate samples for duplicates</li> <li>A <b>Niton XL5 Plus</b> portable X-Ray Fluorescence (XRF) analyser is used to assist in the visual identification of ore mineralogy and lithology.</li> </ul>

Criteria	JORC Code explanation	Commentary
		<ul style="list-style-type: none"> <li>XRF reading locations are based on geology and mineralogy with reading times of 90 seconds. Field standards are used daily to calibrate the analyser.</li> <li>Portable XRF results are used for preliminary assessment and reporting of mineralogy prior to the receipt of assay results from the certified laboratory. The XRF results are not used in the estimation of width and grade of mineralised intervals.</li> </ul>
<b>Verification of sampling and assaying</b>	<ul style="list-style-type: none"> <li>The verification of significant intersections by either independent or alternative company personnel.</li> <li>The use of twinned holes.</li> <li>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</li> <li>Discuss any adjustment to assay data.</li> </ul>	<ul style="list-style-type: none"> <li>Significant intersections are verified by the Company's technical staff and a suitably qualified Competent Person</li> <li>No twinned holes have been drilled or used</li> <li>Primary data is captured onto a laptop spreadsheet and includes geological logging, sample data and QA/QC information. This data, together with the assay data, is validated and entered into the American West Metals server in Perth, Australia</li> <li>No assay data is adjusted</li> </ul>
<b>Location of data points</b>	<ul style="list-style-type: none"> <li>Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.</li> <li>Specification of the grid system used.</li> <li>Quality and adequacy of topographic control.</li> </ul>	<ul style="list-style-type: none"> <li>The WGS84 UTM Zone 12N coordinate system is used</li> <li>Drill hole collars are located with a handheld GPS with an expected accuracy of +/-5m for easting, northing and elevation.</li> </ul>
<b>Data spacing and distribution</b>	<ul style="list-style-type: none"> <li>Data spacing for reporting of Exploration Results.</li> <li>Whether the data spacing, and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.</li> <li>Whether sample compositing has been applied.</li> </ul>	<ul style="list-style-type: none"> <li>The drilling results in this report are not sufficient to establish the degree of geological and grade continuity to support the definition of Mineral Resource and Reserves and the classifications applied under the 2012 JORC code.</li> <li>No sample compositing has been applied</li> </ul>
<b>Orientation of data in relation to geological structure</b>	<ul style="list-style-type: none"> <li>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</li> <li>If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.</li> </ul>	<ul style="list-style-type: none"> <li>The drill holes are designed to intersect the mineralised zones at a near perpendicular orientation (unless otherwise stated). However, the orientation of key structures may be locally variable and any relationship to mineralisation has yet to be identified</li> <li>No orientation-based sampling bias has been identified in the data to date.</li> </ul>
<b>Sample security</b>	<ul style="list-style-type: none"> <li>The measures taken to ensure sample security.</li> </ul>	<ul style="list-style-type: none"> <li>All drill core is handled by company personnel or suitable contractors</li> <li>All core cutting and handling follows documented procedures</li> </ul>
<b>Audits or reviews</b>	<ul style="list-style-type: none"> <li>The results of any audits or reviews of sampling techniques and data.</li> </ul>	<ul style="list-style-type: none"> <li>No audits of the sampling protocol have yet been completed</li> </ul>

## Section 2 Reporting of Exploration Results

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

Criteria	JORC Code explanation	Commentary
<b>Mineral tenement and land tenure status</b>	<ul style="list-style-type: none"> <li>Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.</li> <li>The security of the tenure held at the time of reporting along with any known impediments to obtaining a license to operate in the area.</li> </ul>	<ul style="list-style-type: none"> <li>West Desert property consists of 336 unpatented lode mining claims; all or part interest in 20 patented mining claims covering 330 acres, which are now private land; and one state mineral lease. The property has an aggregate area of approximately 32km<sup>2</sup>.</li> <li>All tenements and permits are in good standing.</li> </ul>
<b>Exploration done by other parties</b>	<ul style="list-style-type: none"> <li>Acknowledgment and appraisal of exploration by other parties.</li> </ul>	<ul style="list-style-type: none"> <li>Pinnacle completed conducted heavy-metal geochemical sampling, geological mapping, and a VLF-EM geophysical survey during 1958–59, including two core drill holes totalling 228.6m (C-1 and C-2).</li> <li>From 1961 to 1985, Utah drilled 39 core holes totalling 16,555.8 m and eight RC holes totalling 609.5 m. The Main Zone sulphide zinc and oxide deposits were discovered during this time.</li> <li>Noble Peak purchased the property in 1985 from Utah, carried out a small soil and rock geochemical survey, and sampled the old drill core and mine dumps for their potential to support a silver leaching operation.</li> <li>In 1990, a joint venture between Cyprus and Mitsui Mining &amp; Smelting Co. Ltd. (Mitsui) obtained an option to earn a 50% interest in the property from Noble Peak. Cyprus completed 15.3 line-km of gradient-array IP resistivity and 3.2 line-km of dipole-dipole IP surveying along with surface geological mapping. This led to identification of the main West Desert anomaly, its continuation to the east toward and under the Galena and Utah mines, and a new doughnut-shaped anomaly in the north-eastern quadrant of the survey area. By the end of 1991, Cyprus had completed 17 DD holes totalling 9,434.6m and two RC holes totalling 670.6m and had undertaken preliminary metallurgical studies. Cyprus relinquished its option on the property to Noble Peak in 1993.</li> <li>In 1994, Noble Peak carried out a small prospecting and surface rock geochemical program to investigate the possibility of zone(s) of gold enrichment.</li> <li>In 1998, Noble Peak changed its name to Vaaldiam Resources Ltd (Vaaldiam), began to concentrate on diamond exploration, and optioned the property to Sierra Gigantes Resources Inc. (Sierra). Sierra carried out an enzyme leach soil sampling survey prior to relinquishing its option.</li> </ul>



Criteria	JORC Code explanation	Commentary
		<ul style="list-style-type: none"> <li>In 2001, EuroZinc Mining Corporation (EuroZinc) purchased the West Desert property from Vaaldiam by purchasing a 100% equity interest in N.P.R. (US), Inc., a Nevada corporation and wholly owned subsidiary of Vaaldiam whose sole asset was the mineral title to the West Desert property. Other than compiling some of the historical results in a computer database, EuroZinc did not conduct any work.</li> <li>In 2005, Lithic purchased N.P.R. (US), Inc. from EuroZinc, thereby acquiring the West Desert property.</li> <li>From 2006, Lithic has conducted exploration that included photogrammetry, a helicopter-borne magnetic survey and a pole-dipole IP survey.</li> <li>In 2007–08, Lithic completed 10,639m of core drilling, and undertook preliminary metallurgical test work.</li> <li>In 2009, Lithic completed metallurgical test work to evaluate recovery of zinc and copper in both the oxide and sulphide portions of the orebody.</li> <li>In 2013, Lithic completed test work to evaluate magnetite recovery.</li> <li>In February 2014, the company changed its name from Lithic to InZinc Mining Ltd.</li> <li>In 2018, InZinc (formerly Lithic Resources Ltd) completed 5 DD holes totalling 3,279m to test and expand the mineralisation model created by MDA in 2014.</li> </ul>
<b>Geology</b>	<ul style="list-style-type: none"> <li><i>Deposit type, geological setting and style of mineralisation.</i></li> </ul>	<ul style="list-style-type: none"> <li>Base metal mineralisation discovered to date on the West Desert property consists of sphalerite with minor chalcopyrite, molybdenite, galena occurring in a series of concordant to discordant magnetite-bearing skarns and replacement bodies in carbonate rocks south of, and adjacent to, a quartz monzonite intrusive complex.</li> <li>Two main types of skarn have been distinguished on the basis of mineralogy, generally reflecting the chemistry of the host rock: a) the most common type is magnesian, consisting of humite ± magnetite ± phlogopite along with lesser spinel, periclase, actinolite, forsterite and tremolite (humite and forsterite may be partly retrograded to serpentinite, brucite and/or talc) and b) less common type of skarn/carbonate replacement deposit (CRD) is more calcareous in composition. It generally exhibits a less disrupted character, with preserved bedding replaced by alternating bands of reddish-brown grossularite garnet separated by bands of fine-grained diopside and potassium feldspar, probably reflecting a protolith of thinly bedded limestone with shaly partings. Magnetite is occasionally present.</li> <li>The Main Zone mineralisation has been traced with drilling over a length of about 525m, a width of about 150m, and to a depth of 575m, and remains open to the west and to depth.</li> <li>The Main Zone has been oxidised to an average depth of about 250m.</li> <li>The Deep Zone is located immediately south of the Juab Fault and is hosted</li> </ul>

Criteria	JORC Code explanation	Commentary
		<p>predominantly in thinly bedded limestones and shaley members of the Orr Formation.</p> <ul style="list-style-type: none"> <li>• Within the Deep Zone, three separate CRD style mineralised horizons have been identified through drilling over an area of about 330m by 225m at depths from about 450m to 750m. They remain open to the west, south, and east.</li> </ul>
<b>Drill hole Information</b>	<ul style="list-style-type: none"> <li>• A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes: <ul style="list-style-type: none"> <li>○ easting and northing of the drill hole collar</li> <li>○ elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</li> <li>○ dip and azimuth of the hole</li> <li>○ down hole length and interception depth</li> <li>○ hole length.</li> </ul> </li> <li>• If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.</li> </ul>	<ul style="list-style-type: none"> <li>• See body of this announcement</li> <li>• Historically drilling and significant intercepts have been independently compiled by Entech and can be found in the Independent Geologist's Report</li> <li>• Supporting drillhole information (easting, northing, elevation, dip, azimuth, down hole length) is supplied within Appendix E of the Independent Geologist's Report</li> </ul>
<b>Data aggregation methods</b>	<ul style="list-style-type: none"> <li>• In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.</li> <li>• Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.</li> <li>• The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> </ul>	<ul style="list-style-type: none"> <li>• Where historical intersections are noted, the nominal lower cut-off is 2% Zinc. Lower grade mineralisation is not shown.</li> <li>• Weighted average grades are used for reporting drill intersections. The intersection begins at the start of the first selected sample and ends after the last sample in the interval.</li> <li>• The cut-off grade for the reporting of intersections is &gt;2% zinc, &gt;0.5% copper and &gt;0.1% molybdenum. Precious metal content is not reported to cut-off grades.</li> <li>• Where individual grades are quoted, the sampling depth is shown.</li> <li>• No metal equivalents are used.</li> <li>• Visual mineralisation is reported as the dominant mineral habit and abundance for the given interval. Intervals may include minor types of other styles of mineralisation.</li> </ul>
<b>Relationship between mineralisation widths and intercept lengths</b>	<ul style="list-style-type: none"> <li>• These relationships are particularly important in the reporting of Exploration Results.</li> <li>• If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</li> <li>• If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').</li> </ul>	<ul style="list-style-type: none"> <li>• All intervals are reported as down hole lengths.</li> <li>• Given the geometry of mineralisation and drill hole design, the intervals are expected to be close to true widths</li> </ul>

Criteria	JORC Code explanation	Commentary
<b>Diagrams</b>	<ul style="list-style-type: none"> <li>Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported. These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.</li> </ul>	<ul style="list-style-type: none"> <li>A prospect location map and cross section are shown in the body of the announcement.</li> </ul>
<b>Balanced reporting</b>	<ul style="list-style-type: none"> <li>Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.</li> </ul>	<ul style="list-style-type: none"> <li>All known exploration results have been reported.</li> <li>Reports on other exploration activities at the project can be found in ASX Releases that are available on our website <a href="http://www.americanwestmetals.com">www.americanwestmetals.com</a></li> </ul>
<b>Other substantive exploration data</b>	<ul style="list-style-type: none"> <li>Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.</li> </ul>	<ul style="list-style-type: none"> <li>All material or meaningful data collected has been reported.</li> </ul>
<b>Further work</b>	<ul style="list-style-type: none"> <li>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).</li> <li>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</li> </ul>	<ul style="list-style-type: none"> <li>Further metallurgical test work will aim to provide a robust metallurgical and mineralogical model and refine the processing flowsheet.</li> <li>Resource modelling and estimation using recent and historical drill hole data is currently underway.</li> <li>Subsequent activities are being planned and include the testing geophysical targets and other high priority exploration targets within the project area.</li> </ul>