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ALTO REVIEWING OROYA BLACK RANGE MINE, SANDSTONE, WA

- **Alto has captured previous explorer's drilling data for the historic Oroya Mine at Sandstone**
- **Digitising of level plans and underground workings is in progress**
- **The Oroya Sandstone Reef is considered to represent a potential high-grade target at vertical depths of 300 metres below surface**

Alto Metals Limited (ASX: AME) ("Alto", "the Company") wishes to advise that its review of the potential of the historic Oroya Black Range Mine is progressing, with drone imagery completed, drill hole data captured into a digital database, and digitising of historic level plans in progress.

The historic underground Oroya Mine is reported to have produced a total of 420,000t at 16.48g/t Au for 220,000 oz of gold. (Hayden & Drummond 1991)

The Sandstone Reef of the Oroya Mine is considered to represent a potential high-grade target at vertical depths of 300 metres below surface.

Alto's goal at Sandstone is the delineation of a +1 million ounce JORC 2012 Mineral Resource that could become the basis for a re-establishment of standalone oxide and primary gold mining and milling operations at the Project. However, it is possible that in the short term, some of the existing deposits may be amenable to toll treatment elsewhere.

Between 1981 and 1993, Western Mining Corporation conducted exploration over the Oroya Black Range Mine under a JV agreement with Spargos Exploration NL. Work by WMC included geological mapping, reverse circulation (RC) drilling (258 holes for 13,664m) and diamond core drilling (13 holes for 3,731m) and resource modelling.

WMC also undertook metallurgical testwork on a small laterite gold resource lying over and adjacent to the main deposit. WMC subsequently divested their 70% interest in the Spargos JV in May 1993 due to the low prevailing gold price and a high strip ratio.

Figure 1 overleaf is a current drone image of the Oroya Black Range Mine, approximately 500m east of the Sandstone township, which is located within Alto's wholly owned granted Exploration Licence 57/1029.

Figure 1. Alto Drone Image of Oroya Open Pit, Sandstone WA



REVIEW OF PREVIOUS EXPLORATION

Alto has captured WMC’s drill hole data into a modern digital database, and is proceeding with the digitising of historic underground level plans.

Figures 2 and 3 below are examples of the vertical and angled RC drilling completed by WMC at Oroya prior to the open cut mining by Herald Resources Ltd in 1994-1995. **Note:** The digitising of the historic underground workings has not progressed sufficiently far enough for the underground workings to be plotted on the sections.

Figure 2. Alto Cross Section 6901,620mN Utilising WMC Drilling Data

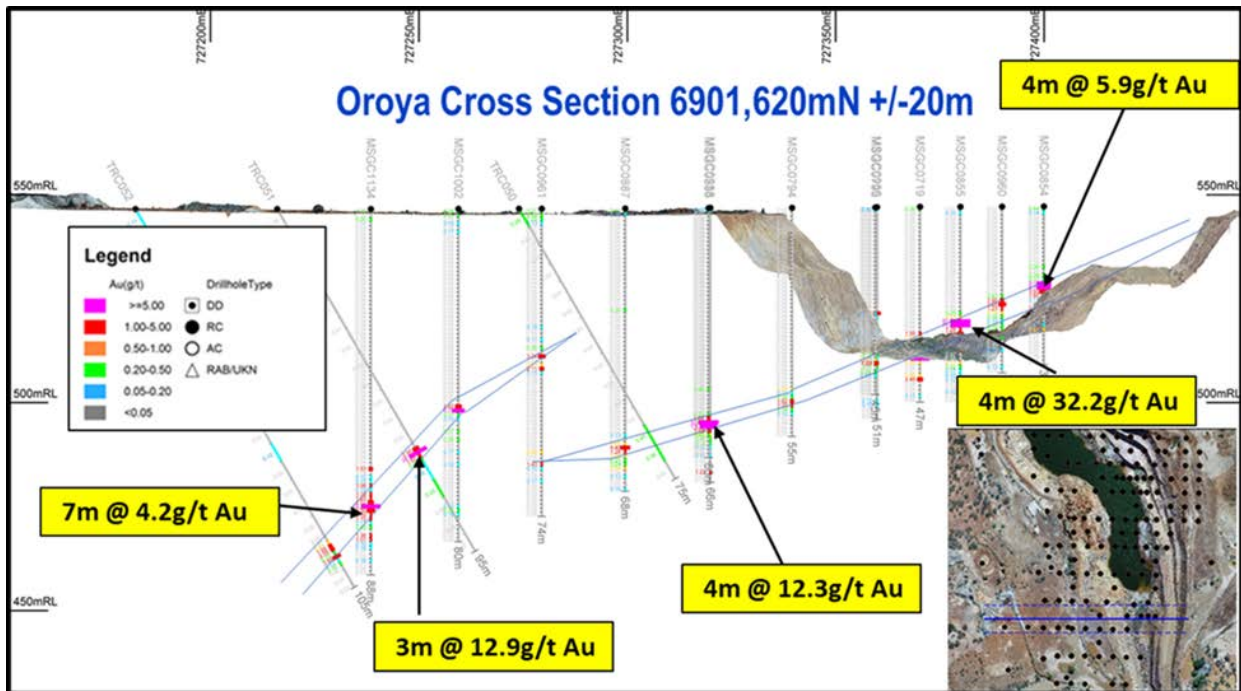
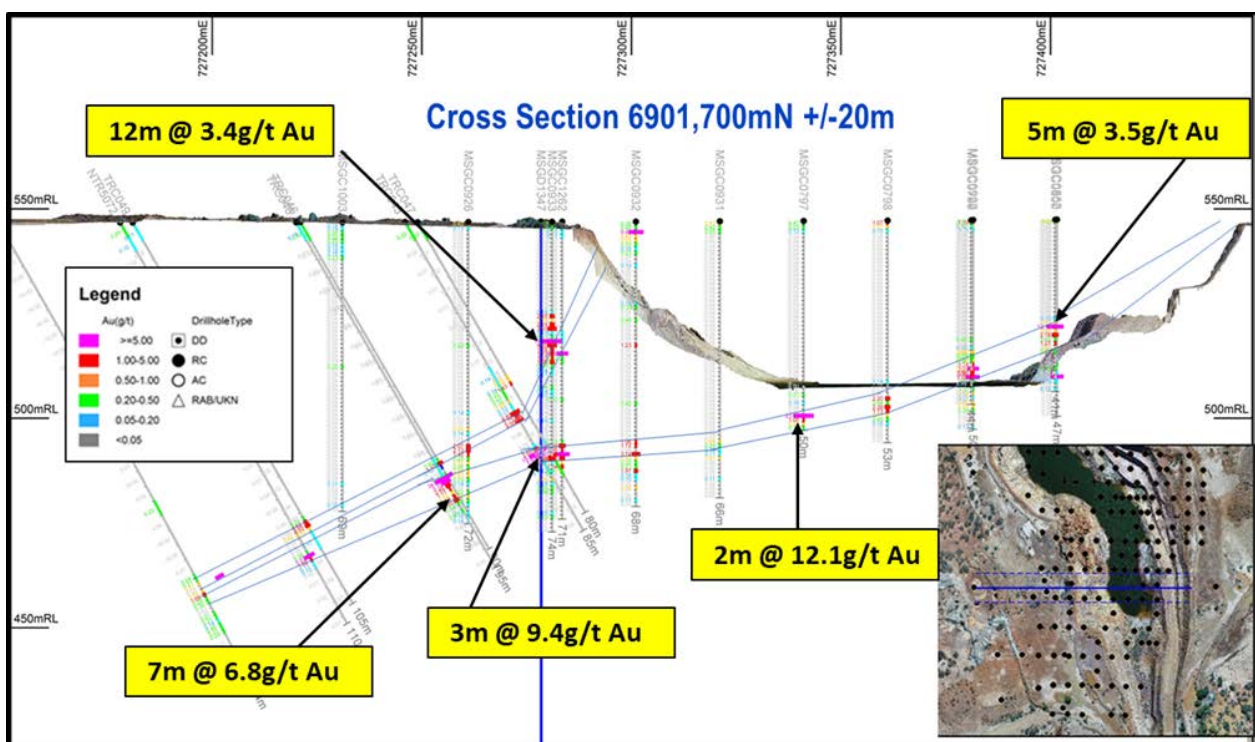


Figure 3. Alto Cross Section 6901,700mN Utilising WMC Drilling Data



Herald Resources Ltd (Herald)

Between 1993-1994, acquired a large landholding around Sandstone, and in 1994, constructed a CIP processing plant and began open pit mining at Twin Shafts. Production continued from the **Oroya**, Goat Farm, Shillington, Two Mile Hill, Plum Pudding and Bull Oak open pits until 1999. Total production from these operations was 1.9 Mt at 2.00 g/t Au for 125,000 oz of gold. In 1994-1995, Herald milled 344,548t at 2.27g/t Au from the Oroya open cut mine. The Sandstone Reef remnants and subsidiary branch reefs were mined in the open pit to a depth of 60 metres.

Troy Resources NL (Troy)

Troy Resources subsequently acquired the Oroya leases and the mill and undertook further deep drilling. The deepest hole at Oroya was drilled by Troy (TRC 633) and this hole intersected both the Deep Flat Reef and the Sandstone Reef in the anticipated position but the grades were disappointing.

In 2011, Snowdens, on behalf of Troy, estimated the remaining Inferred Mineral Resource (JORC 2004) to be 63,000t at 5.30 g/t Au for 10,735 oz gold. This modest resource is located below the base of the existing pit within the area of the old underground workings. (*Anon, 2011, Troy Resources NL Information Memorandum*) **Cautionary Note:** *A Competent Person has not completed sufficient work to accurately classify the JORC 2004 estimates as Mineral Resources under the JORC 2012 Code.*

GEOLOGICAL SETTING

The local geology is dominated by metabasalts and metadolerites with thin sedimentary marker beds. Near Sandstone townsite this stratigraphy strikes east-west and dips 85⁰ to the south. Cutting across the rock strata are several gold-bearing quartz veins with north- south strike and shallow westerly dips. One of these is the historic Oroya Black Range Mine, which was a major gold producer at Sandstone . (Hayden & Drummond, 1991)

The Oroya Black Range underground mine had a strike length of about ~1,000 metres, and was worked a vertical depth ~140 metres.

Oroya has several branch and subsidiary parallel branches to the main Sandstone Reef of which the Juno Branch is the most important branch. It splits off the main Sandstone Reef at about 60 metres to 100 metres vertical depth and continues up through the hanging wall to near the surface. It has been defined over a strike length of 300 metres and typically dips more steeply than the adjacent parts of the Sandstone Reef being developed adjacent to and overlying an unusually flat area of the Sandstone Reef.

The Juno Branch is characterised by large amounts of massive quartz up to 12 metres thick in places but is generally 1 to 3 metres thick and strikes east-west and dips steeply (~85°) to the south.

Cutting across the stratigraphy are several gold bearing quartz reefs striking north-south and dipping at shallow angles (~30° to 45°) to the west.

The Oroya Sandstone reefs are variably composed of quartz, quartz-carbonate and brecciated quartz and carbonate altered mafic rock. They occur within sheared country rock with carbonate alteration halos up to 15 metres in width.

ABOUT ALTO AND THE SANDSTONE GOLD PROJECT

Alto holds ~800km² of the prospective Archaean Sandstone Goldfield, 600km north of Perth in the East Murchison Mineral Field of Western Australia.

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

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

However, it is possible that in the short term, some of the existing deposits may be amenable to toll treatment elsewhere.

Further information:

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Competent Person Statement

The information in this Report that relates to Exploration Targets and 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 and has sufficient experience of relevance to the styles of mineralization 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 and mineral resources referred to in this Report were previously reported by WMC, Herald Resources Ltd and Troy Resources NL to the Department of Mines and Energy (WA) and to the ASX by Troy Resources NL in 2011. 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.

REFERENCES

- Hayden, P, 1985 Western Mining Corporation Ltd. Annual Report 1984, Sandstone/Spargos Joint Venture, Gold Mining leases 57/1411, 1416, 1426, 1429, 1430, 1433, 1439, 1440, 1443-1446, 1591 and 37/1591 Mining leases 57/11, 57/12 and 57/40 at Sandstone. WA DME unpublished report.
- Hayden, P, 1986 Western Mining Corporation Ltd. Annual Report, Sandstone/Spargos Joint Venture, Gold Mining lease 1207B, 1208B, 1213B, 57/1410-1446 and 37/1591 Mining leases 57/11, 57/12 and 57/40 at Sandstone. 7 Dec 1984 to 3 Dec 1985 WA DME unpublished report.
- Hayden, P, 1987 Western Mining Corporation Ltd. Annual Report, Sandstone/Spargos Joint Venture, Mining lease 57/40 at Sandstone. 4 Dec 1985 to 15 April 1987 WA DME unpublished report.
- Hayden, P, 1989 Western Mining Corporation Ltd. Annual Report, Sandstone/Spargos Joint Venture, Mining lease 57/40 at Sandstone. 16 April 1987 to 15 April 1988 WA DME unpublished report.
- Hayden, P, 1990 Western Mining Corporation Ltd. Annual Report, Sandstone/Spargos Joint Venture, Mining lease 57/40 at Sandstone. 16 April 1988 to 15 April 1989 WA DME unpublished report.
- Hayden, P, & Drummond, M.J, 1991 Western Mining Corporation Ltd. Annual Report, Sandstone/Spargos Joint Venture, Mining leases 57/40, 57/179 and Prospecting Licence 57/607 at Sandstone. 16 April 1989 to 15 April 1990 WA DME unpublished report.
- Drummond, M, 1991 Western Mining Corporation Ltd. Annual Report, Sandstone/Spargos Mining leases 57/40, 57/179 and Prospecting Licence 57/607 at Sandstone. 16 April 1990 to 15 April 1991 WA DME unpublished report.
- Mazzoni, P, 1992 Western Mining Corporation Ltd. Annual Report, Sandstone/Spargos Joint Venture, Mining leases 57/40, 57/179 and Prospecting Licence 57/607 at Sandstone. 16 April 1991 to 15 April 1992 WA DME unpublished report.
- Mazzoni, P, 1993 Western Mining Corporation Ltd. Annual Report for the Period 16 April 1992 to 15 April 1993, Sandstone/Spargos Joint Venture, Mining leases 57/40, 57/179 and Prospecting Licence 57/607. WA DME unpublished report.
- Carello, F.E, 1996 Herald Resources Ltd 1995 Annual report on Mineral Exploration Activities Sandstone Project, M57/40, M57/128-30, M57/179, M57/192, M57/248, P57/686-687, P57/698-700, E57/189. WA DME unpublished report
- Chapple, L, & Graham, P, 1997 Herald Resources Ltd. Sandstone Project. M57/40, M57/128-30, M57/179, M57/192, M57/248, P57/686-687, P57/698-700, P57/803-805, E57/189. Annual Report for the Year Ending 31 Dec 1996. WA DME unpublished report.
- Chapple, L, 1998 Herald Resources Ltd. Sandstone Project. M57/40, M57/128-30, M57/179, M57/192, M57/248, P57/686-687, P57/698-700, P57/803-805, E57/189, e57/267, E57/338. Annual Report for the Year Ending 31 Dec 1997. WA DME unpublished report.
- Greenaway, L, 1999 Herald Resources Ltd. 1998 Technical Report on Mineral Exploration Activities Sandstone Project, M57/40, M57/128-30, M57/179, M57/192, M57/246-248, M57/366, M57/254, M57/276, P57/645, P57/682, P57/688, P57/698-700, P57/751, P57/754, P57/803-805, P57/836, P57/848, P57872, E57/189, E57/267, E57/338, E57/404. WA DME unpublished report
- Ringrose, C.R, 2000 Troy Resources NL, Sandstone Project, 1 Jan 1999-31 Dec 1999, M57/40, M57/128-30, M57/179, M57/192, M57/246-248, M57/366, M57/254, M57/276, P57/645, P57/682, P57/688, P57/698-700, P57/751, P57/754, P57/803-805, P57/836, P57/848, P57872, E57/189, E57/267, E57/338, E57/404. WA DME unpublished report
- Anon, 2011 Troy Resources NL, Sandstone Gold Project, Information Memorandum