

Alderan completes two holes targeting Drum and Mizpah gold

HIGHLIGHTS

- Alderan completes two holes targeting the Drum and Mizpah gold deposits in its drilling programme at the Detroit copper and gold project in Utah, USA.
- Drum historical oxide gold mine produced 125,000oz and is geologically open along strike and down dip. It has not received any modern exploration since mining ceased in 1989.
- Examples of historical high-grade drill intercepts at Drum include:
 - 13.7m @ 6.4g/t Au from 13.7m downhole including 4.6m @ 18.1g/t Au (YC-58A)
 - 24.4m @ 2.7g/t Au from 9.1m downhole including 7.6m @ 7.6g/t Au (YC-60)
 - 22.9m @ 5.0g/t Au from 19.8m downhole including 9.1m @ 10.8g/t Au (YC-113A)
 - 35.1m @ 4.3g/t Au from 25.9m downhole including 18.3m @ 7.7g/t Au (YC-169)
 - 15.2m @ 4.5g/t Au from 73.2m downhole including 6.1m @ 10.3g/t Au (YC-174)
- Modelling of historical drill data highlights Drum's potential for extensions to remnant mineralisation and high-grade gold in structural zones.
- Alderan's in-pit rock samples at Drum assay up to 10.7g/t gold with 36 of 76 samples assaying +0.5g/t gold and 22 assaying +1.0g/t gold
- Mizpah oxide gold deposit was discovered in the 1980s and is geologically open along strike and down dip. It lies 2km north of Drum and was not mined.
- Examples of historical high grade drill intercepts at Mizpah include:
 - 7.6m @ 2.3g/t Au from 19.8m downhole (MZ-104)
 - 10.7m @ 1.9g/t Au from surface (MZ-49)
 - 12.2m @ 1.7g/t Au from surface (MZ-93)
 - 16.8m @ 1.4g/t Au from 3.0m downhole (MZ-87-048)
 - 22.8m @ 1.1g/t Au from 44.2m downhole (MZ-87-052)
- First results from the Drum and Mizpah drilling are expected in March following receipt of remaining Detroit results from Q4 2021 drilling.

Alderan Resources Limited (ASX: AL8) (**Alderan** or the **Company**) is pleased to provide an update on the planned 10- hole drilling programme at its Detroit Project, located in the Drum Mountains region of western Utah, USA, which recommenced in January 2022.

Two holes have been completed, hole 9DD22-001 at the Drum mine and hole 3DD22-001 at Mizpah. The Drum hole aims to verify a zone in the East Pit including historical drill hole YC-16 which intersected 56.4m @ 1.8g/t Au from 44.2m downhole. The Mizpah hole, one of the original Stage 1 holes, was planned to test the down dip extension of mineralisation in Alderan's hole DD20M-006 which intersected 83m @ 0.41g/t Au including 6.9m @ 1.98g/t Au.

Alderan Managing Director, Scott Caithness said: "It is exciting to be drilling to increase the size of two known gold deposits which have not been explored since the mid-late 1980s. Historical work on both prospects focussed on delineating near surface oxide gold deposits with the average drill hole depth of less than 50m at Drum and 30m at Mizpah. Both oxide deposits are open down dip and along strike and the potential for primary mineralisation below the oxide remains untested.

“With oxide gold deposits in neighbouring Nevada mined to cut off grades of 0.15-0.2g/t Au and both deposits being open, Drum and Mizpah have the potential to be significantly larger than what has been delineated in the past. Our initial focus is to verify historical drill results and then confirm upside potential with first results expected in March.”

Detroit Drilling Update¹

Alderan re-commenced its drilling programme at Detroit following rig maintenance and a break over Christmas-New Year. Drilling will focus on the Drum Gold Mine where 10 holes are planned totalling approximately 1,200m. Three holes are also planned at Mizpah totalling approximately 300m.

Drilling at Drum aims to verify historically drilled gold mineralisation and also test for new mineralisation. A key focus of testing for new mineralisation will be drilling below the West Pit into the down-dip extensions of the Tatow unit, the prime ore horizon in the East Pit.

Drill hole 9DD22-001 completed at a depth of 117.95m was designed to test for gold mineralisation in the zone surrounding historical hole YC-16 which intersected 56.4m grading 1.8g/t gold from 44.2m downhole in Tatow unit sediments. Modelling suggests approximately 10-20m of the YC-16 intersection which includes grades up to 7.1g/t Au remained as residual gold mineralisation below the final pit bottom when mining ceased at Drum in 1989. Figure 1 shows the location of completed and planned holes at Drum.

At Mizpah, drill hole 3DD22-001 has been completed at a depth of 164.89m. This hole is a ~350m step-out to test for down dip extensions to the west of Alderan’s hole DD20M-006 which intersected 83m @ 0.41g/t Au including 6.9m @ 1.98g/t Au during maiden Detroit drilling in 2020 (see Figure 2).

Alderan has submitted samples from both holes for analysis and results are expected in March 2022. Table 1 below summarises the targets to be tested by each completed and planned hole.

Next Steps

Alderan awaits assays for drill holes 9DD22-001 and 3DD22-001 and also final assays for holes 7DD21-003, 6DD21-004, 6DD21-005 and 6DD21-006 which were completed on its Detroit project in Q4 2021. Alderan released assays for a 21m section of hole 6DD21-004 and a 31.8m section of hole 6DD21-005 in an ASX announcement on 30 December 2021.

Additional drilling at Drum and Mizpah as per the plan outlined in Table 1 will commence in early March following a drill crew break and rig change currently in progress. Personnel shortages due to COVID are impacting Major Drilling’s ability to provide relief drillers when project dedicated drilling crews are due for breaks. This is resulting in drilling operating on a ‘20 days on - 10 days off’ roster throughout the remainder of the Detroit programme.

¹ Refer Alderan ASX announcements dated 15 October 2021, 12 November 2021, 8 December 2021, 16 December 2021, 30 December 2021.

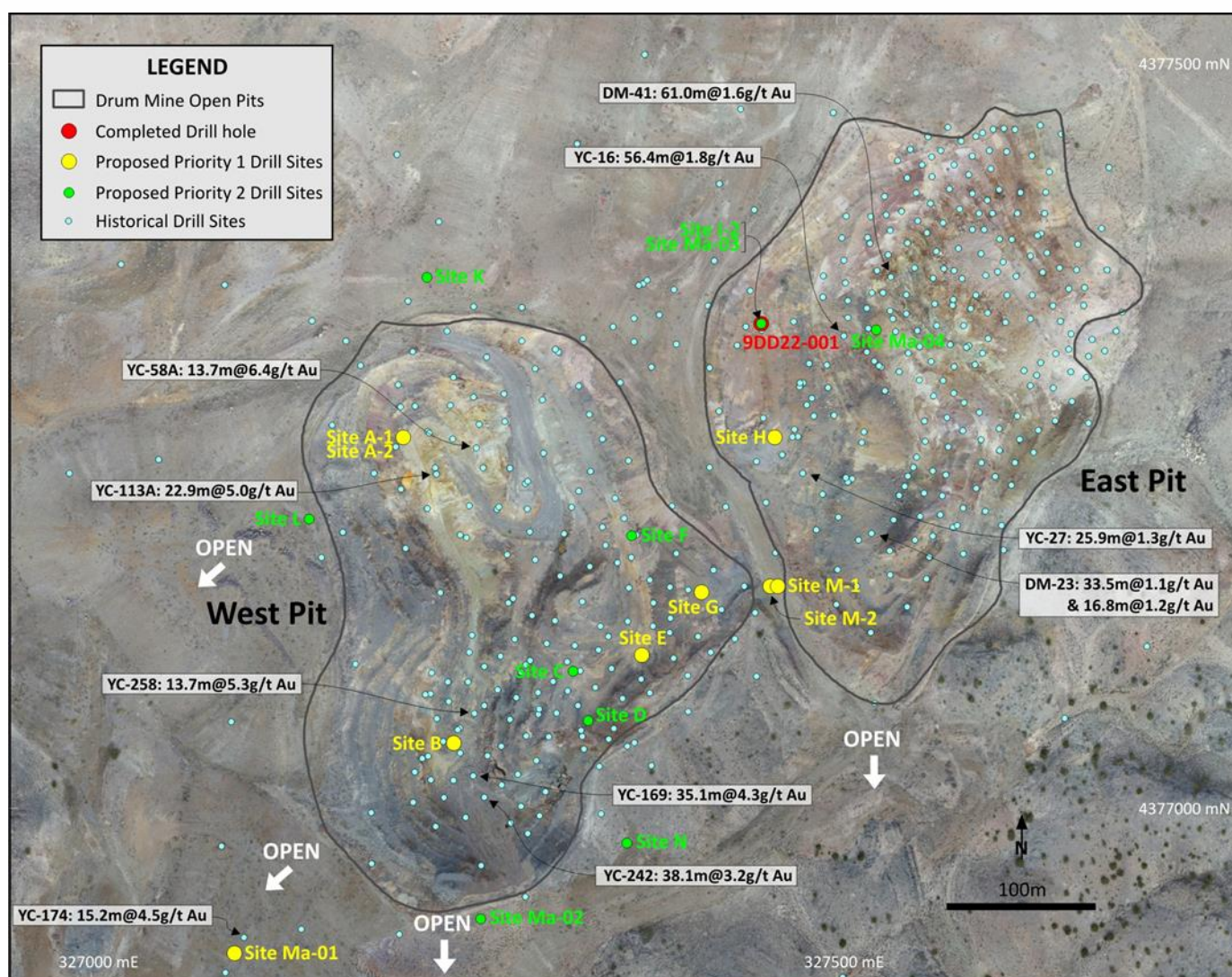


Figure 1: Aerial view of Drum showing pit outlines, significant historical drill intersections plus completed and proposed Alderan drill holes. Priority 1 sites (yellow) are in the current programme while Priority 2 sites (green) are contingent.

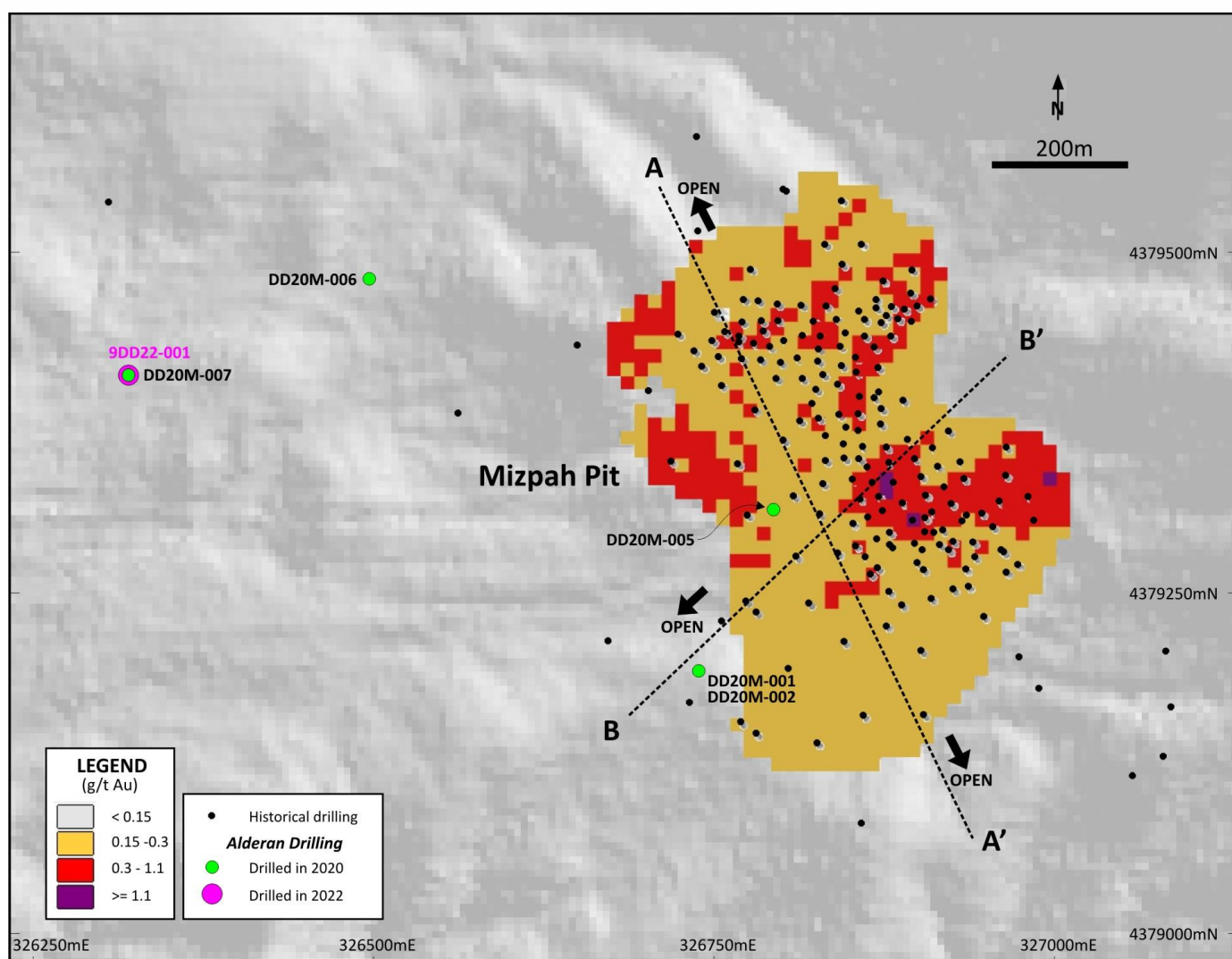


Figure 2: Plan showing location of hole 9DD22-001 relative to the Mizpah deposit block model. As can be seen the hole is a bold 375m down dip step-out from hole DD20M-006 which intersected 83m @ 0.41g/t Au. See below for further background on the Mizpah modelling and sections.

Table 1: Drum and Mizpah Planned and Completed Holes

Drill Site	Easting	Northing	Target Depth (m)	Site Rationale and Target
Drum				
9DD22-001 (Completed)	327 449	4 377 326	120	East Pit: Verify remnant mineralisation at bottom of YC-16 which intersected 56.4m @ 1.8g/t Au.
Site A-1	327 209	4 377 250	50	West Pit: Verify remnant mineralisation at bottom of YC-114 which intersected 9m @ 2.0g/t Au.
Site A-2	327 209	4 377 250	110	West Pit: Verify remnant mineralisation at bottom of YC-72 which intersected 9m @ 1.4g/t Au & Tatow test.
Site M-1	327 460	4 377 150	120	East Pit: Verify remnant mineralisation at bottom of DM-23 which intersected 16.8m @ 1.2g/t Au.
Site M-2	327 455	4 377 150	120	East Pit: Tatow test below dropcut.
Site B	327 243	4 377 045	150	West Pit: Verify remnant mineralisation at bottom of YC-169 which intersected 35m @ 4.3g/t Au & Tatow test.
Site G	327 409	4 377 146	140	West Pit: Tatow test in hanging wall of King Tut fault.

Site H	327 458	4 377 250	135	East Pit: Test down dip extension of YC-16 which intersected 56.4m @ 1.8g/t Au.
Site E	327 369	4 377 104	100	West Pit: Tatow test in hanging wall of King Tut fault.
Site Ma-01	327 096	4 376 904	120	West Pit Extension: Verify YC-174 which intersected 15.2m @ 4.5g/t Au; permit amendment required.
Mizpah				
9DD22-001 (Completed)	326 321	4 379 409	164.89m	Test down dip extension 300m to west of Alderan hole DD20M-006 which intersected 83m@0.41g/t Au from 35.9m downhole

Drum Background

Alderan secured an option over the Drum Gold Mine, one of the most productive and economically important sediment-hosted gold deposits in Utah, in late September 2021 as part of its strategy to consolidate the Detroit mining district².

Drum was discovered in 1982 with a drill intercept of 15m grading 8.5g/t gold and was mined from the adjacent East and West pits between 1984-89³. Over its six-year mine life, it reportedly produced 125,000oz of gold from 3.17 million tonnes of oxide ore grading 1.22g/t gold. Towards the end of its life, a small underground operation was developed in the West Pit which produced mined grades of +4g/t gold.

Alderan's modelling of historical data suggests the 1980s drill defined gold deposit at Drum has exploration potential for remnant gold mineralisation totalling approximately 1.2 - 1.5 million tonnes at a grade of approximately 1.1 - 1.4g/t gold (approximately 42,000-67,000 ounces)⁴. This estimate of exploration potential quantity and grade is conceptual in nature, there has been insufficient exploration to estimate Mineral Resources and it is uncertain if further exploration will result in the estimation of a Mineral Resource.

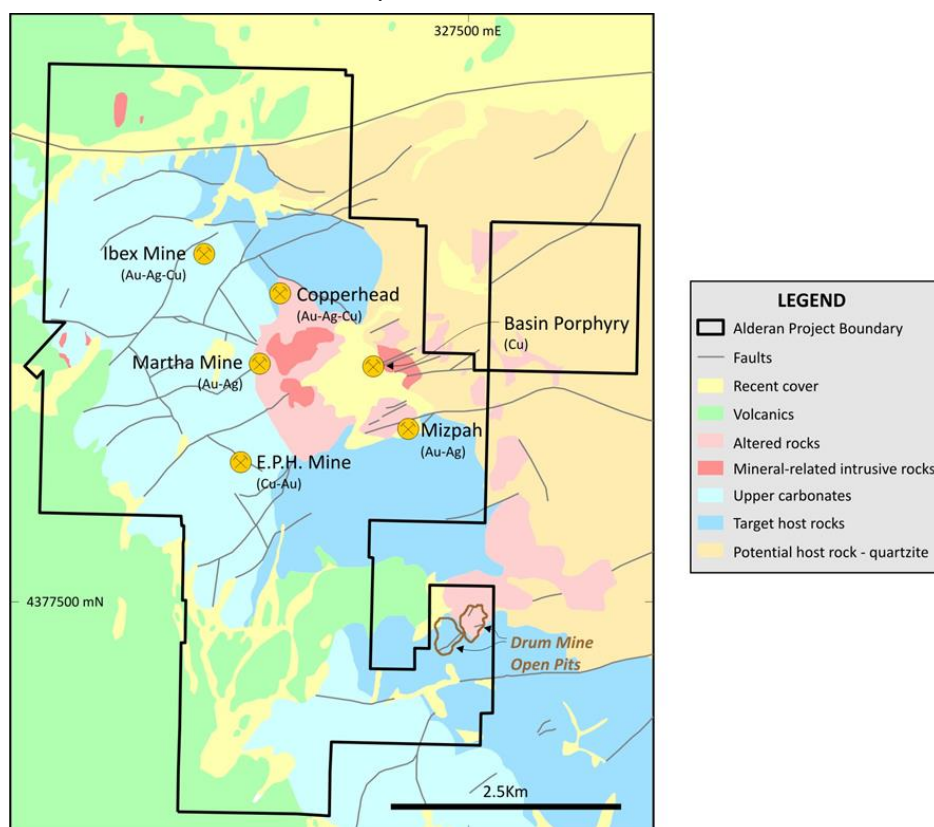


Figure 3: Alderan's Detroit tenement showing locations of Drum Mine & Mizpah.

The mineralisation however remains open along strike to the north, south and down dip to the southwest where drill holes include YC-174 which intersected 15.2m grading 4.5g/t gold (including 6.1m at 10.3g/t Au) 150m from historical ore in the West Pit (see Figures 4-7). The ore horizon mined in the East Pit remains open down dip to the southwest and has not been drill tested below the West pit. Drum has both long and high-grade historical drill intercepts. Hole DM-9 intersected 70.1m grading 1.0g/t gold and the highest-grade individual assay over a 5ft (~1.5m) sample interval is 38.8g/t gold.

Examples of high grade historical intersections from drilling undertaken by Western States Minerals and Nevada Resources Inc in 1982-89 include:

² Refer Alderan ASX announcement dated 30 September 2021.

³ Krahulec, K.; Sedimentary rock-hosted gold and silver deposits in the Northeast Basin and Range, Utah; Utah Geol Survey; Jan 2011.

⁴ Refer Alderan ASX releases dated 18 and 19 November 2021.

- YC-58A: **13.7m @ 6.4g/t Au** from 13.7m downhole including **4.6m @ 18.1g/t Au**
- YC-60: **24.4m @ 2.7g/t Au** from 9.1m downhole including **7.6m @ 7.6g/t Au**
- YC-113A: **22.9m @ 5.0g/t Au** from 19.8m downhole including **9.1m @ 10.8g/t Au**
- YC-169: **35.1m @ 4.3g/t Au** from 25.9m downhole including **18.3m @ 7.7g/t Au**
- YC-174: **15.2m @ 4.5g/t Au** from 73.2m downhole including **6.1m @ 10.3g/t Au**
- YC-242: **38.1m @ 3.2g/t Au** from 30.5m downhole including **15.2m @ 6.4g/t Au**

Alderan composite grab rock-chip sampling along the outcropping walls of the East and West pits focussed on altered target host rocks of the Tatow and Chisholm formations, the prime ore horizons during historical mining, and in visible structural zones interpreted to be potential hosts of high-grade mineralisation (see Figure 8). This sampling verified that remnant high grade gold occurs in the pit walls with the highest gold assay being 10.65g/t over a 2.8m sampling interval⁵. Additional high-grade sample intervals include 1.7m grading 7.01g/t gold and 2.8m grading 5.86g/t gold. A total of 36 samples of the 76 collected grade +0.5g/t gold with 22 of these grading +1.0g/t gold. An additional 17 samples grade +0.15g/t gold which is above the cutoff for oxide gold leach operations in neighbouring Nevada.

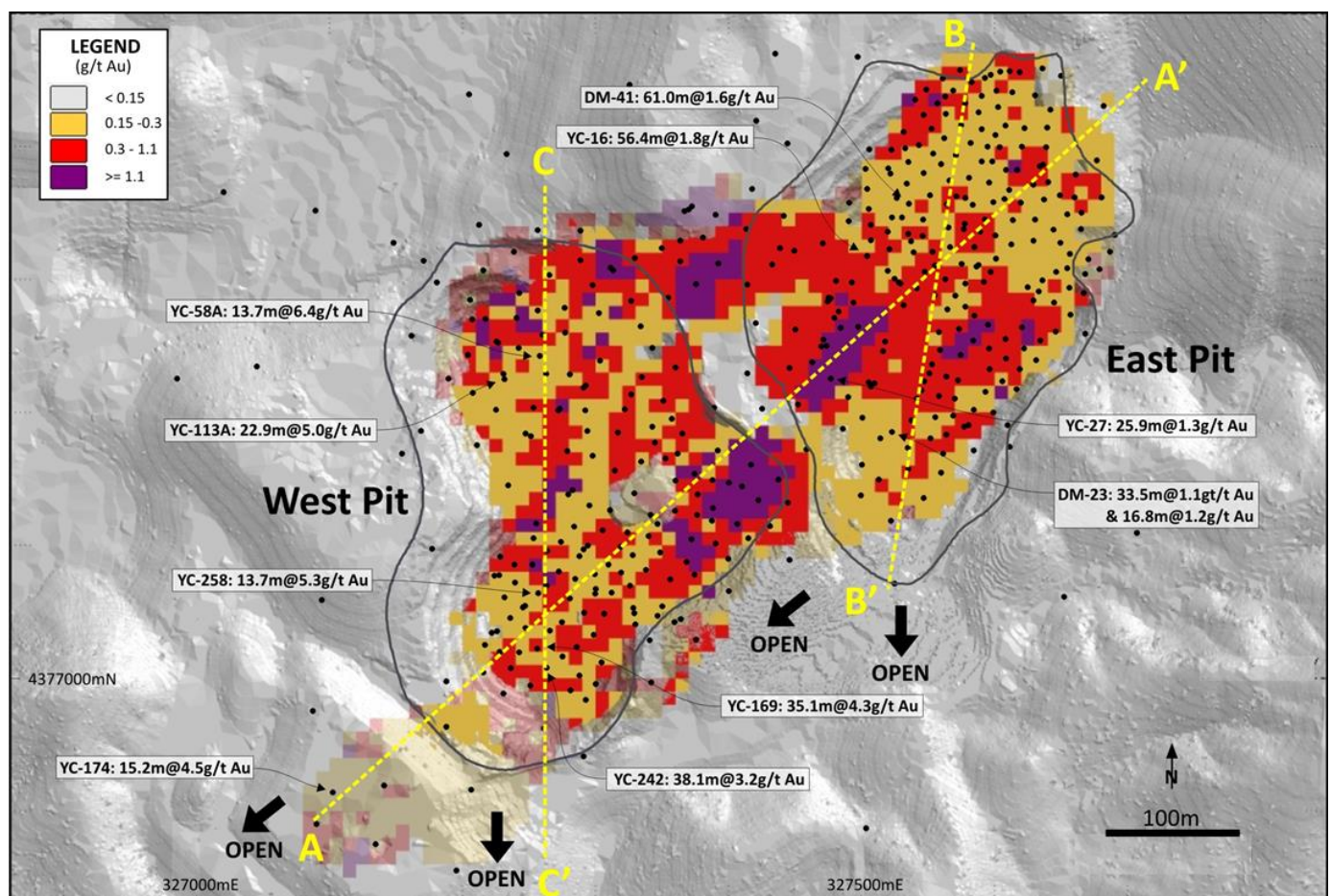


Figure 4: Plan showing modelled Drum gold deposit above 0.15g/t Au cut-off grade based on historical drill holes plus significant historical drill hole intersections. Potential remnant mineralisation lies outside pit boundaries to the south, north and southwest and is open.

⁵ Alderan ASX announcement dated 16 December 2021.

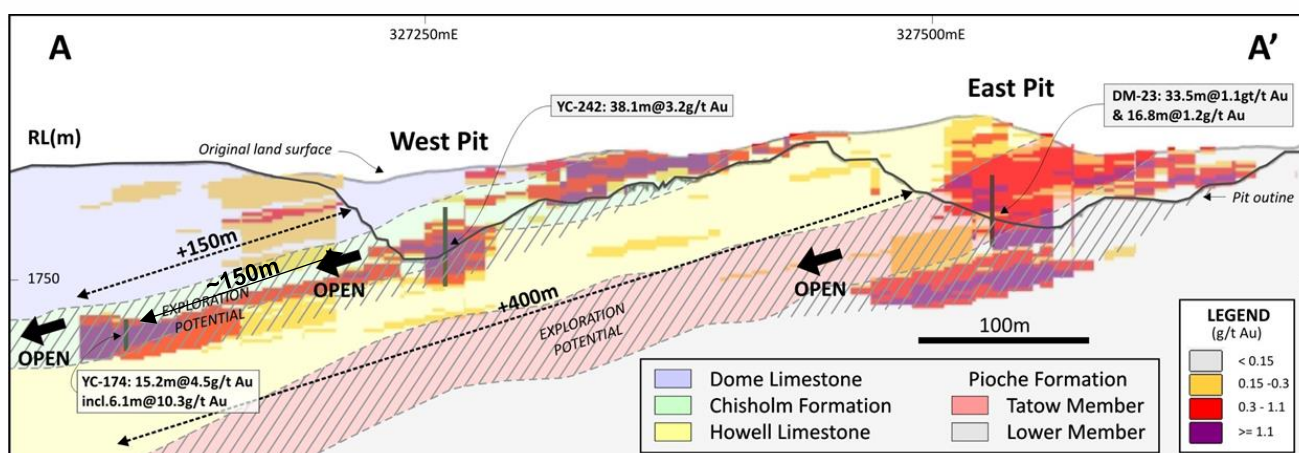


Figure 5: Drum long section showing gold mineralisation based on historical drill holes and interpreted geology plus significant down dip exploration potential.

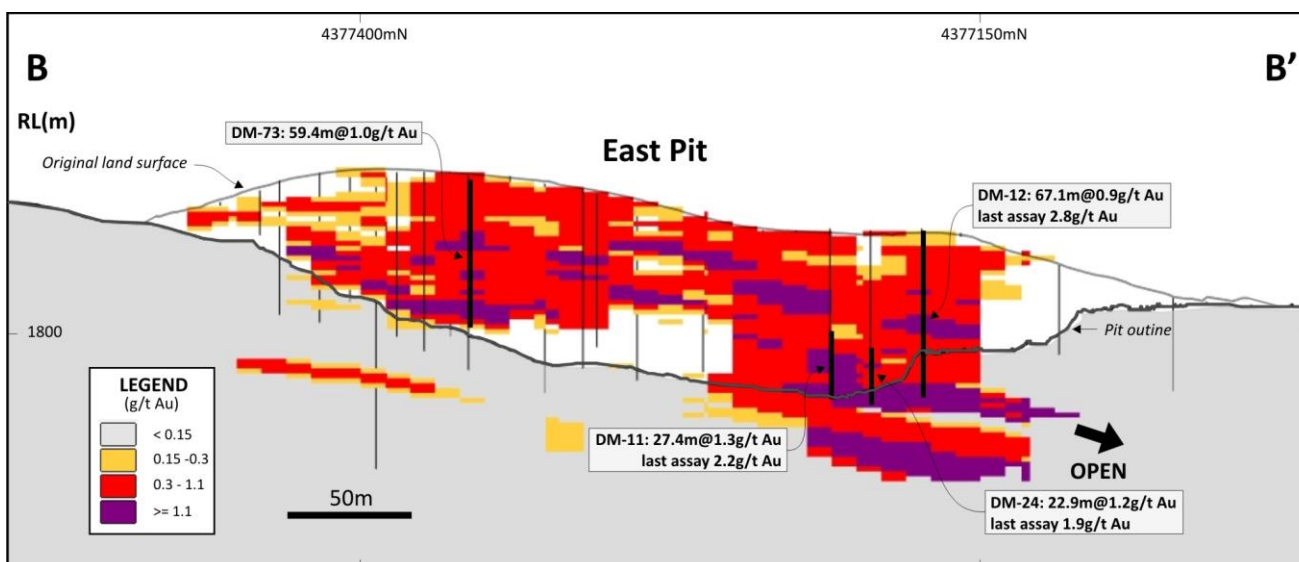


Figure 6: Drum East Pit north-south section showing the mineralised blocks above 0.15g/t Au cut-off based on historical drill holes – open to south.

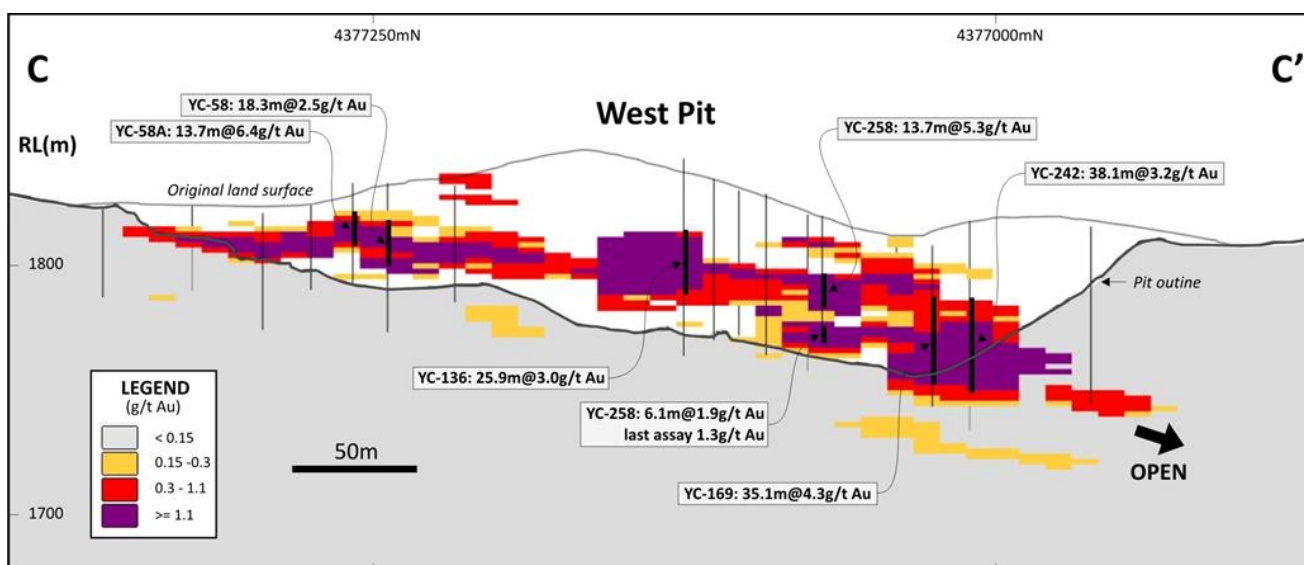


Figure 7: Drum West Pit north-south section showing the mineralised blocks above 0.15g/t Au cut-off based on historical drill holes – open to south.

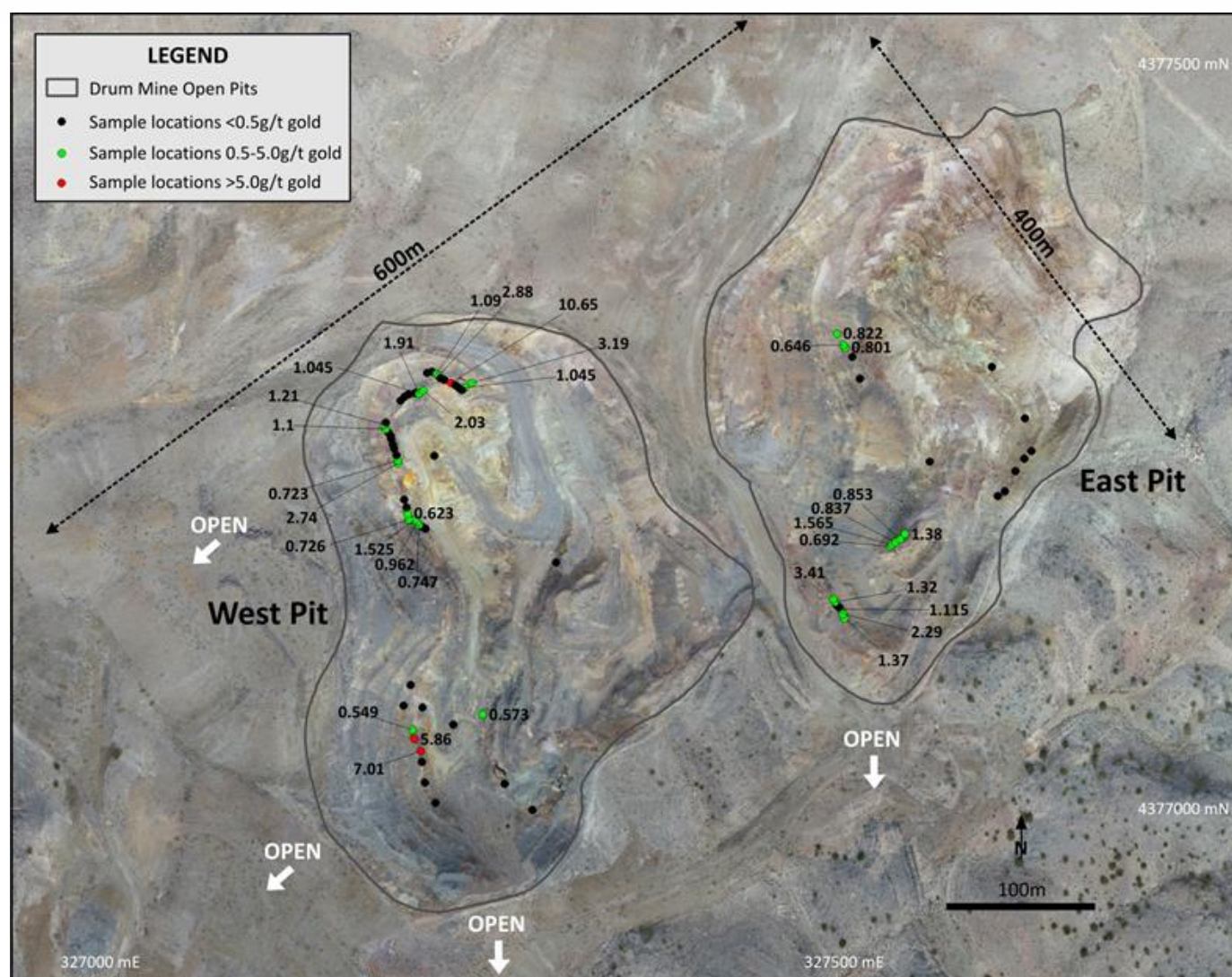


Figure 8: Aerial view of Drum Gold Mine pits with Alderan rock sample locations and gold assay results.

Mizpah Background⁶

The Mizpah oxide gold deposit is located on the southeastern margin of the Basin Complex within Alderan's Detroit project (see Figure 2). It was discovered and extensively drilled in 1986-87 by Western States Minerals and Nevada Resources Inc. in conjunction with their evaluation and mining of Drum which lies 2km to the south.

Alderan reviewed 197 historical holes drilled to delineate the near-surface oxide gold deposit at Mizpah. The average depth of the drill holes was 28m, with only one hole drilled to over 100m (ended at 103.7m). Samples from drilling were analysed by either fire assay or AAS however, as no quality assurance and quality control information is available, these assays are regarded by Alderan as indicative of exploration potential only.

Examples of high grade historical drill hole intersections include:

- **7.6m @ 2.3g/t Au** from 19.8m downhole (MZ-104)
- **10.7m @ 1.9g/t Au** from surface (MZ-49)
- **12.2m @ 1.7g/t Au** from surface (MZ-93)
- **16.8m @ 1.4g/t Au** from 3.0m downhole (MZ-87-048)
- **22.8m @ 1.1g/t Au** from 44.2m downhole (MZ-87-052)

⁶ Alderan ASX announcements dated 22 February 2021 & 24 August 2021

Alderan has developed a 3D model of the gold distribution at Mizpah from the historical data which suggests the following (see Figures 9-11):

- Mizpah is open along strike to the southeast and northwest and down dip to the southwest.
- The deposit remains open at depth with 40 holes (20% of total) ending in +0.5g/t Au and 20 of these ending in +1.0g/t Au.
- High grade gold occurs with the maximum 1.5m sample assay 9.1g/t Au (MZ87-052 - last assay)
- There is potential for a second mineralised horizon at depth.
- The historically drill defined Mizpah oxide gold deposit has exploration potential for approximately 3.0-4.0Mt at an approximate grade of 0.4-0.8g/t gold (approximately 40,000-100,000 ounces). It should be noted that this exploration potential quantity and grade is conceptual in nature, that there has been insufficient exploration to estimate a Mineral Resource and that it is uncertain if further exploration will result in the estimation of a Mineral Resource.
- The drill holes were terminated when they intersected fresh rock hence the potential for primary gold mineralisation below the oxide has not been tested.

Alderan holes DD20M-002 and 005 drilled at Mizpah intersected 13.3m @ 0.42g/t Au from 51.2m downhole and 15.4m @ 0.38g/t Au from 19.9m respectively while hole DD20M-006 drilled approximately 375m northeast of DD20M-002 intersected 83m @ 0.41g/t Au from 35.9m downhole including 6.9m @ 1.98g/t Au from 84.6m.

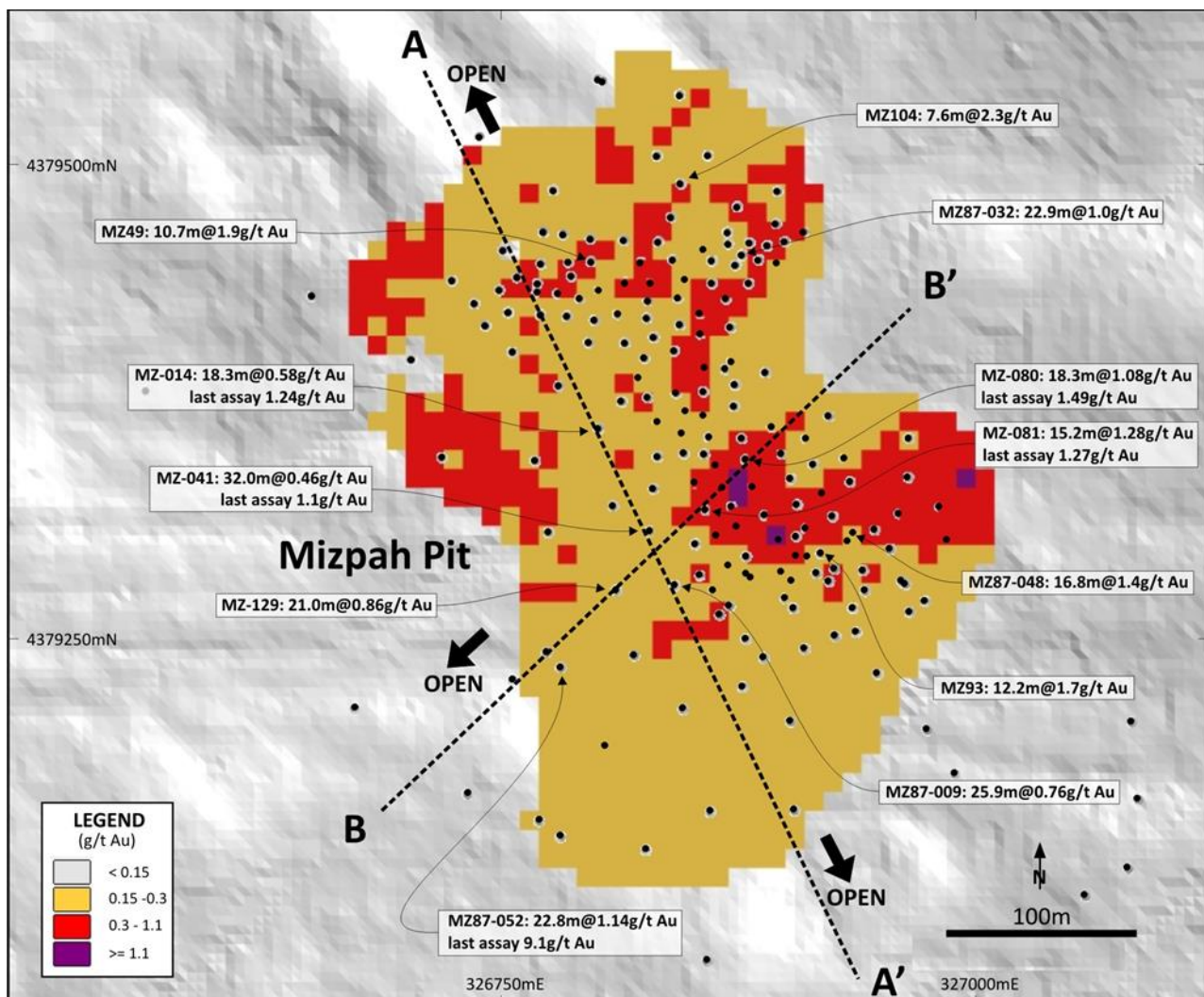


Figure 9: Plan showing Mizpah gold mineralised blocks above 0.15g/t Au cut-off grade based on historical drill holes and thick/high grade historical drill hole intersections. Deposit is open to the SE, NW and SW.

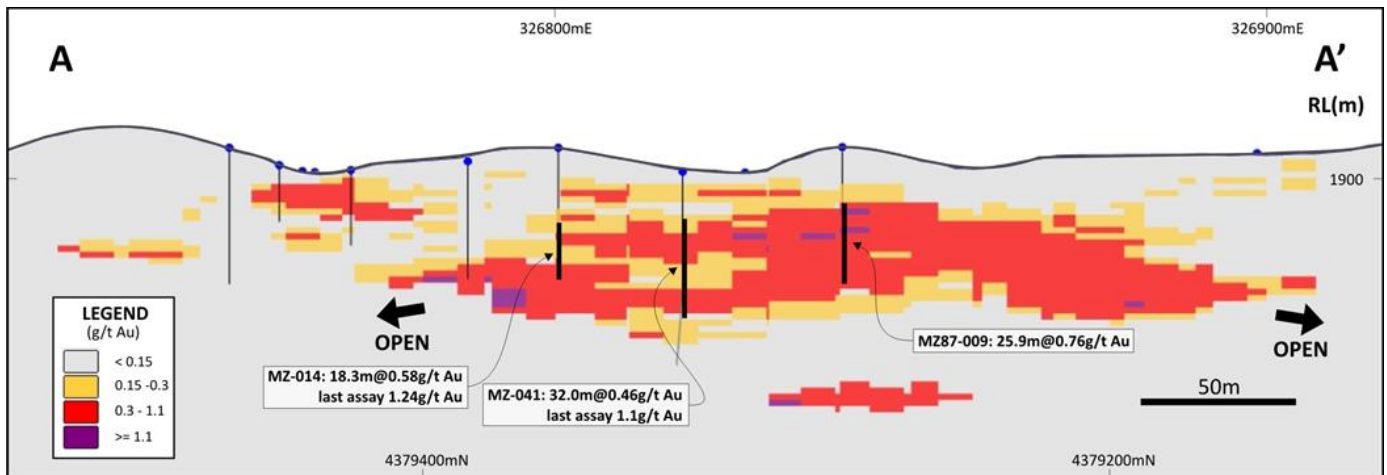


Figure 10: Mizpah long section showing gold mineralisation based on historical drill holes and thick/high grade historical drill intersections. Deposit is open to the NW and SE with possible deeper second mineralised horizon.

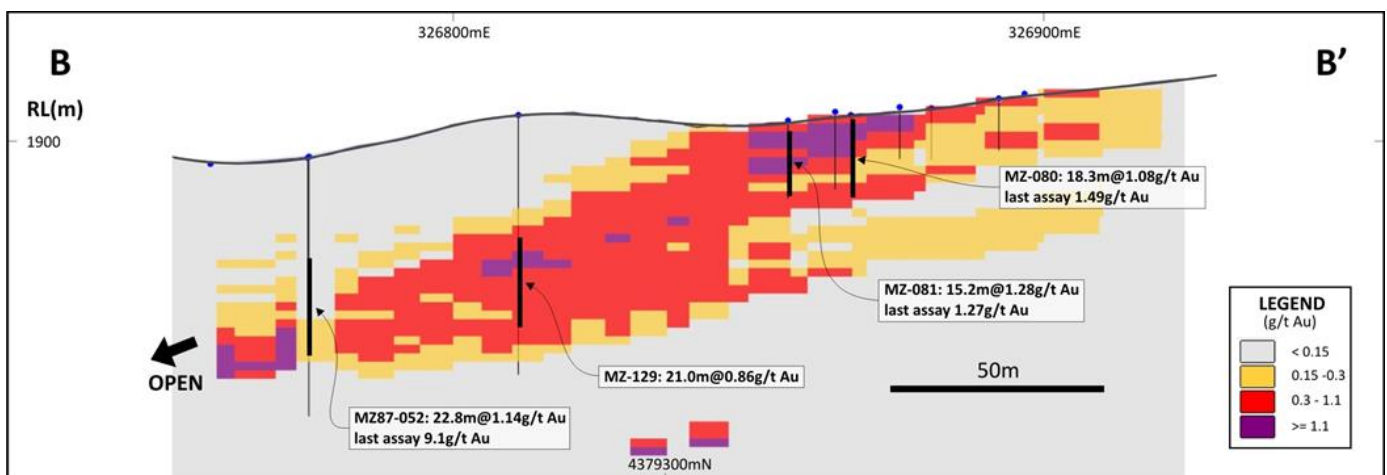


Figure 11: Mizpah cross section showing gold mineralisation based on historical drill holes and thick/high grade historical drill intersections. Deposit is open down dip to SW and note high grades of last assays in some holes.

Detroit Project

The Detroit Project is one of four Alderan projects (Figure 12) in Utah, USA. It lies within the Detroit Mining District, approximately 175km southwest of Salt Lake City, and contains numerous historical copper, gold and manganese mines. The district has been explored for copper and gold in the past by major mining companies such as Anaconda Copper, Kennecott, Newmont, BHP and Freeport-McMoRan but no one company was able to build a significant contiguous land position to enable district-wide modern exploration. The United States Geological Survey (**USGS**) has also explored the area, sampling extensive mineralised jasperoids.

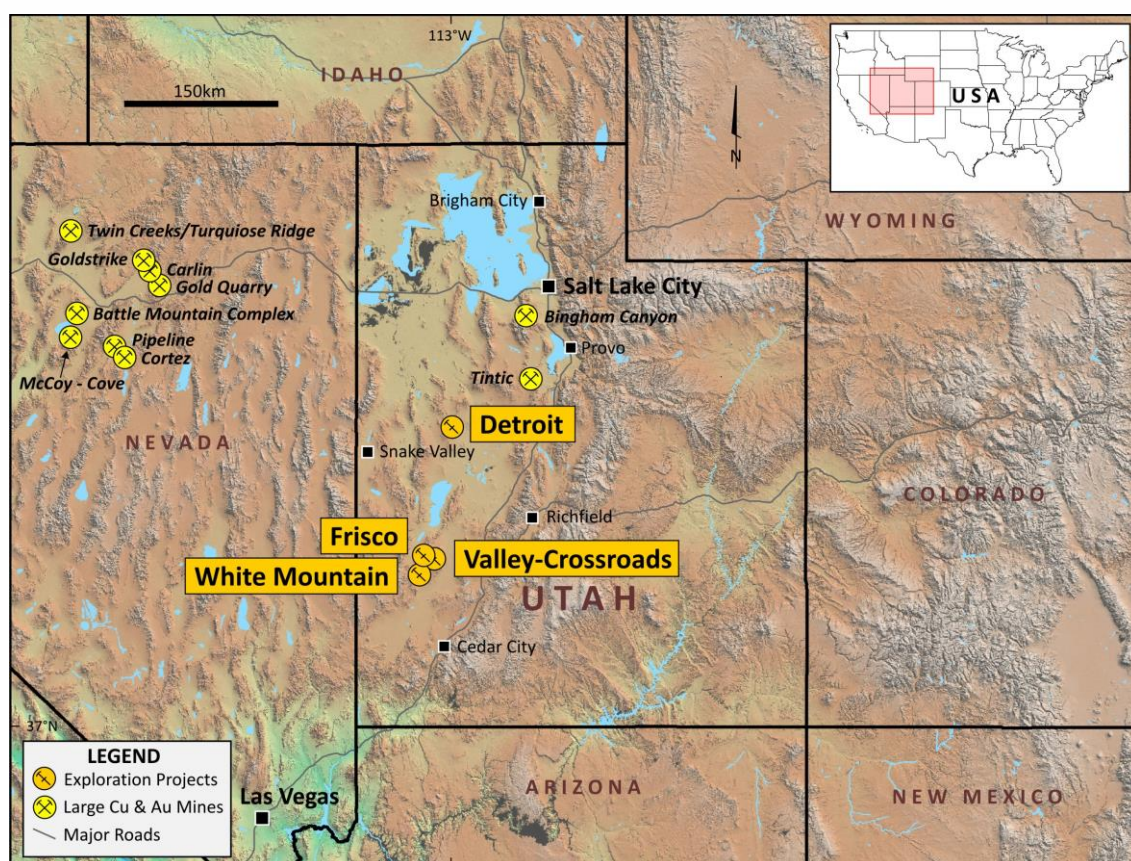


Figure 12: Alderan Resources project locations in western Utah.

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This announcement was authorised for release by the Board of Alderan Resources Limited.

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Competent Persons Statement

The information contained in this announcement that relates to the exploration potential for the Drum gold mine peripheral to the historical pits and the Mizpah prospect is based on, and fairly reflects, information compiled by Dr Marat Abzalov, who is a Fellow of the Australian Institute of Mining and Metallurgy. Dr Abzalov is a consultant to Alderan and 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'. Dr Abzalov consents to the inclusion in this announcement of the matters based on his information in the form and context in which it appears. Dr Abzalov holds securities in the Company.

The information in this announcement that relates to historical exploration results were reported by the Company in accordance with listing rule 5.7 on 22 February 2021, 24 August 2021, 30 September 2021, 15 October 2021, 12 November 2021, 18 November 2021, 19 November 2021, 8 December 2021, 16 December 2021 and 30 December 2021. The Company confirms it is not aware of any new information or data that materially affects the information included in the previous announcement.