

#### ASX RELEASE

26 April 2022

# **Gum Creek Gold Project**

# Diamond and RC drilling planned for Altair and Mensa Copper-Zinc Targets

#### **HIGHLIGHTS**

- Diamond drilling is planned at the Altair Prospect to test coincident magnetic and gravity highs, and electromagnetic conductors down plunge of previous significant zinc-copper-silver intercepts including:
  - 55.0m @ 3.32% Zn, 0.52% Cu, 9.4g/t Ag from 184.0m
  - 44.4m @ 2.93% Zn, 0.49% Cu, 8.3g/t Ag from 274.2m
  - **62.6m @ 2.45% Zn, 0.42% Cu, 7.0g/t Ag** from 262.0m
- Zinc-copper-silver mineralisation at Altair has a strike length of more than 450 metres and is open to the east and north.
- Reverse Circulation (RC) drilling is also planned at the Mensa Prospect to test several coincident electromagnetic conductors, magnetic highs, and anomalous surface geochemical targets along strike to the north of Altair.
- Altair and Mensa exhibit the geological and geochemical hallmarks of a major polymetallic Volcanogenic Massive Sulphide (VMS) / Sedimentary Exhalative (SEDEX) system.
- The conductive host sequence forms a large open fold extending over five kilometres from Altair to the Mensa Prospect, and could potentially form part of a district-scale VMS camp similar to the Teutonic Bore group of deposits.
- Drilling at Altair and Mensa will commence next month.



Horizon Gold Limited (ASX Code: HRN) (Horizon or Company) is pleased to announce details of RC and diamond drilling planned for the Altair and Mensa prospect areas within its 100% owned Gum Creek Gold Project, located in the Mid-West Region of Western Australia (Figures 1 & 5).

The host rock and electrical conductors at Altair and Mensa cover more than five kilometres of strike. The proposed drilling is focused on the most prospective zones that contain coincident anomalous surface geochemistry, strong electrical conductors and elevated magnetics. The resulting targets are very compelling and have the ability to confirm the potential for a district-scale VMS camp.

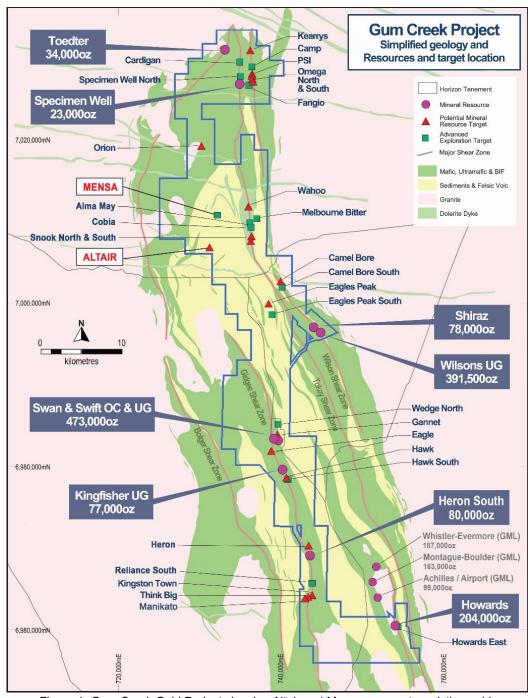


Figure 1: Gum Creek Gold Project showing Altair and Mensa prospects, existing gold resources, potential mineral resources and exploration targets over simplified geology.



### **Altair Exploration Target**

Previous diamond drilling by Horizon at the Altair Prospect defined a broad continuous lens of polymetallic (zinc-copper-silver+/-gold) mineralisation with a strike of more than 450 metres, down dip extent of 350m and average thickness of 25m (Figures 2 to 4). The average density (SG) of all assay intercepts within the lens was estimated at 3.1 tonnes per cubic metre<sup>1</sup>. **Mineralisation remains open down plunge to the east and at shallow depths along strike to the north.** 

Significant Zn-Cu-Ag intercepts returned from Horizon's diamond drilling campaign included<sup>2</sup>:

- 55.0m @ 3.32% Zn, 0.52% Cu, 9.4g/t Ag from 184.0m incl. 9.0m @ 6.69% Zn, 1.00% Cu, 17.0g/t Ag from 213.0m (ALDD002)
- 44.4m @ 2.93% Zn, 0.49% Cu, 8.3g/t Ag from 274.2m incl. 2.0m @ 7.05% Zn, 0.92% Cu, 16.8g/t Ag from 306.0 (ALDD012)
- **78.0m @ 1.90% Zn, 0.32% Cu, 5.4g/t Ag** from 288.0 incl. **14.0m @ 2.34% Zn, 0.51% Cu, 7.4g/t Ag** from 342.0 (ALDD014)
- **62.6m @ 2.45% Zn, 0.42% Cu, 7.0g/t Ag** from 262.0m incl. **19.0m @ 3.09% Zn, 0.53% Cu, 9.2g/t Ag** from 297.0m (ALDD019)

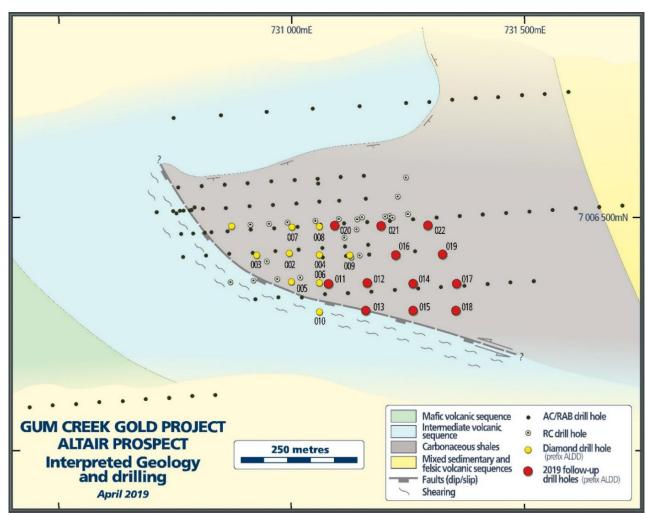


Figure 1: Altair Prospect drill hole location plan showing interpreted geology.

<sup>&</sup>lt;sup>1</sup> Refer to Horizon Gold Ltd ASX Announcement titled "Altair Exploration Update" dated 16 July 2019. CP J Hicks.

<sup>&</sup>lt;sup>2</sup> Refer to Horizon Gold Ltd ASX Announcement titled "Additional Broad Zn-Cu mineralisation intercepted at Altair" Appendix 2 dated 2 April 2019. CPs J Hicks & M Demmer



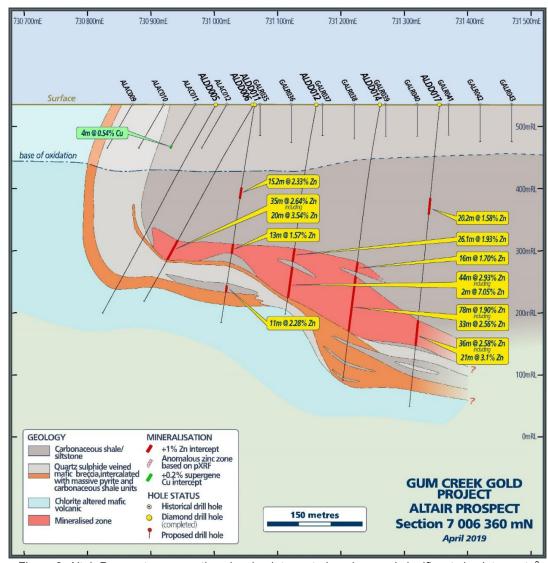


Figure 2: Altair Prospect cross section showing interpreted geology and significant zinc intercepts<sup>3</sup>.

The zinc-copper-silver mineralisation defined at Altair is coincident with anomalous multi-element surface geochemistry, magnetic highs visible in regional aeromagnetic surveys, and electromagnetic conductivity highs defined in both helicopter-borne Transient Electromagnetic (TEM) and ground moving loop electromagnetic (MLEM) surveys.

The Altair mineralisation is located at the base of a black shale sequence and occurs as fine to very fine grained red/brown sphalerite associated with semi-massive magnetic pyrrhotite in folded sub-millimetre stratiform layers interpreted to reflect original bedding plane deposition.

Additionally, drilling by Pancontinental Gold Pty Ltd and Goldfields Exploration Pty Ltd in the 1990's intersected broad zones of shallow supergene copper mineralisation at the Altair Prospect including<sup>4</sup>:

- 44m @ 1.2% Cu from 56m (ALAC005)
- **24m @ 1.0% Cu** from 64m (ALRC007)
- **20m @ 1.1% Cu** from 52m (ALRC002)

<sup>&</sup>lt;sup>3</sup> Refer to Horizon Gold Ltd ASX Announcement titled "Additional Broad Zn-Cu mineralisation intercepted at Altair" dated 2 April 2019. CPs J Hicks & M Demmer

<sup>&</sup>lt;sup>4</sup> Refer to Horizon Gold Ltd ASX Announcement titled "Significant Zinc-Copper Intersection at Gum Creek" dated 4 October 2018. CP J Hicks



## **Mensa Exploration Target**

Regional mapping and geophysical interpretations suggest the target stratigraphy hosting the Altair Prospect may extend at least 5km north to the Mensa Prospect (Figure 4). At Mensa, shallow RC drilling by exploration companies in the 1990's intersected zinc mineralisation beneath anomalous surface geochemistry in a similar geological setting to Altair. The results included 6m @ 0.22% Zn from 50.0m in GMRC001; and 24m @ 0.19% Zn from 20m in GMRC002<sup>5</sup>.

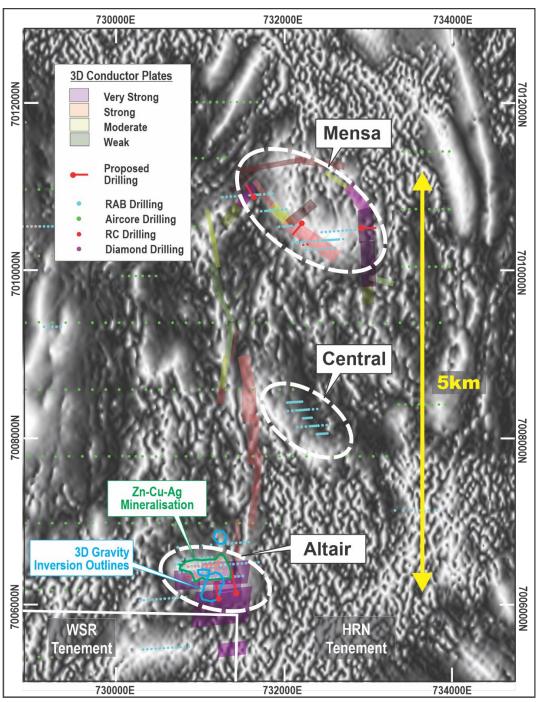


Figure 3: Modelled 3D conductor plates, historic drillhole collars (coloured by hole type), and proposed drill holes (large black dots) over a greyscale derivative aeromagnetic image.

\_

<sup>&</sup>lt;sup>5</sup> Refer to Horizon Gold Ltd ASX Announcement titled "Significant Zinc-Copper Intersection at Gum Creek" dated 4 October 2018. CP J Hicks



The Company interprets the geological setting of the mineralisation at Altair and Mensa to be that of a VMS / SEDEX environment. Evidence to support this interpretation includes:

- Restrictive black shale depositional environment, overlying an interpreted volcanic exhalative chert horizon;
- Extensive chlorite alteration and pyrite development in footwall intermediate volcanics;
- Mineralisation appearing to have formed pre-deformation, and possibly syn-deposition; and
- Anomalous geochemical pathfinder elements characteristic of VMS / SEDEX systems.

Volcanic associated mineral deposits tend to occur in district-scale "camps", with individual deposits occurring in favourable stratigraphic positions over many kilometres. In this respect, the Company considers the Teutonic Bore group of deposits, located approximately 200km southeast of Altair, to be a relevant analogy.

Horizon recently engaged Resource Potentials Pty Ltd to complete a full geochemical and geophysical review of the Altair / Mensa area. Surface geochemistry samples were gridded and imaged, including ternary images to compare concentrations of Au, Pb, Zn and Cu. Multiple geochemical anomalies were identified, including over the Altair, Central and Mensa prospect areas, however multi-element anomalies including elevated gold are the priority targets for Altair style mineralisation.

High frequency helicopter-borne TEM data was also reviewed by Resource Potentials to identify electrical conductors over the Altair-Mensa area. Ground based MLEM data collected using a lower transmitter frequency was then used to determine the strongest electrical conductors, and 3D conductor plate modelling of the MLEM data was then completed using lithological and structural measurements from detailed field mapping and the TEM decay data to help constrain the interpreted conductor plate orientations (Figure 4).

#### Managing Director Leigh Ryan said:

"The compelling drill targets outlined by our geophysical and geological consultants, the increases in copper and zinc commodity prices over the past 2 years, and the potential to define Altair style mineralisation over several kilometres of strike and confirm the potential for a district-scale VMS camp has rekindled Horizon's interest in the Altair-Mensa area. We're very excited about the Altair-Mensa drill program, but we've not shifted our gold focus, and we're looking forward to increasing the Gum Creek gold resource in 2022."

#### **Planned Drill Program**

Three holes have been planned at Mensa to intersect the strongest electromagnetic conductor plates that coincide with elevated magnetics and anomalous geochemistry, and two RC pre-collared diamond holes at Altair will test the strong gravity and conductivity highs at depth beneath and down plunge of the currently defined Zn-Cu-Ag mineralisation (Figure 4).

Drill rigs have been sourced and the Program of Work has been approved by the Department of Mines, Industry Regulation and Safety facilitating a drilling commencement date towards the end of May. Downhole electromagnetic surveying is also planned at the completion of the drilling to detect any off-hole conductive base metal mineralisation that may have been narrowly missed, and to assist with follow up drill planning.



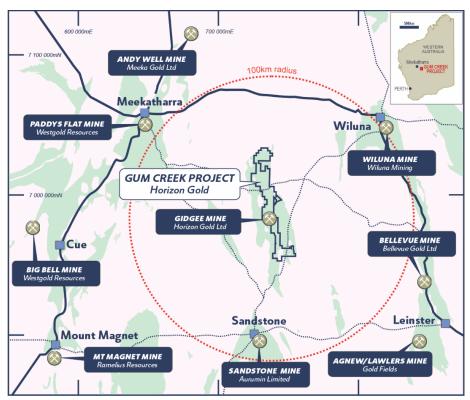


Figure 4: Gum Creek Gold Project and surrounding mines over simplified geology.

Table A: Horizon Gold Limited Gum Creek Gold Project Mineral Resources as at 12 February 2021<sup>6</sup>

Resource	Resource	lgrade	Mineralisation Type	Indicated		Inferred		Total		Contained
				llonnes	Au (g/t)	Tonnes	Au (g/t)	Tonnes	Au (g/t)	Gold (oz)
Open Pit Resources										
Swan & Swift OC	Jan-21	0.7	Free Milling	2,642,000	2.6	1,516,000	2.0	4,158,000	2.4	323,000
Heron South	Aug-16	0.5	Refractory	1,135,000	2.2	2,000	1.3	1,137,000	2.2	80,000
Howards	Jul-13	0.4	Free Milling	5,255,000	1.1	716,000	1.0	5,971,000	1.1	204,000
Specimen Well	Aug-16	0.5	Free Milling			361,000	2.0	361,000	2.0	23,000
Toedter	Aug-16	0.5	Free Milling			690,000	1.5	690,000	1.5	34,000
Shiraz	Jul-13	0.4	Refractory	2,476,000	0.8	440,000	0.8	2,916,000	0.8	78,000
Underground Resources										
Swan UG	Jan-21	2.5 / 3.0*	Free Milling	293,000	7.1	221,000	6.9	514,000	7.0	115,000
Swift UG	Jan-21	3.0	Free Milling			181,000	5.9	181,000	5.9	35,000
Kingfisher UG	Aug-16	3.5	Free Milling			391,000	6.1	391,000	6.1	77,000
Wilsons UG	Jul-13	1.0	Refractory	2,131,000	5.3	136,000	6.0	2,267,000	5.4	391,500
Total				13,932,000	2.2	4,654,000	2.5	18,586,000	2.3	1,360,500

<sup>\*</sup> cut-off grades are 2.5g/t Au for Swan UG Indicated, and 3.0g/t Au for Swan UG Inferred. NB. rounding may cause slight discrepancies in totals.

<sup>&</sup>lt;sup>6</sup> Refer to Horizon Gold Ltd ASX announcement dated 12 February 2021, "Gum Creek Gold Project Resource Update". CP: S.Carras.



#### This ASX announcement was authorised for release by the Horizon Board.

For further information contact:

Leigh Ryan Managing Director +61 8 9336 3388

#### Competent Persons Statement:

The information in this report that relates to Exploration Results is based on information compiled by Mr Leigh Ryan, who is a member of The Australasian Institute of Geoscientists. Mr Ryan is the Managing Director of Horizon Gold Limited and holds shares and options in the Company. Mr Ryan 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 Ryan consents to the inclusion in the report of the matters based on information provided in the form and context in which it appears.

#### No New Information or Data:

This announcement contains references to Mineral Resource estimates, all of which have been cross referenced to previous market announcements. The Company confirms that it is not aware of any additional information or data that materially affects the information included in the relevant market announcements and, in the case of estimates of Mineral Resources, that all material assumptions and technical parameters underpinning the estimates in the relevant market announcement continue to apply and have not materially changed.

#### Forward Looking Statements:

This ASX announcement may contain certain "forward-looking statements" which may not have been based solely on historical facts, but rather may be based on the Company's current expectations about future events and results. Where the Company expresses or implies an expectation or belief as to future events or results, such expectation or belief is expressed in good faith and believed to have a reasonable basis. However, forward looking statements are subject to risks, uncertainties, assumptions and other factors, which could cause actual results to differ materially from future results expressed, projected or implied by such forward-looking statements. Such risks include, but are not limited to metals price volatility, currency fluctuations, as well as political and operational risks and governmental regulation and judicial outcomes.