

## ASX ANNOUNCEMENT

11 November 2020

# Drilling Operations to Resume at Cox's Find

### Highlights:

- Extensions of the high-grade Cox's Find gold deposit to be targeted to the south of the historical workings at depth where recent drill intersections suggest the orebody geometry may have been reoriented by drag folding of the target lithologies along the major mineralised structures
- Multiple layers of exploration data including lithology, geophysics, geochemistry, and structure have identified several drill ready targets for near mine repeats of the Cox's Find gold deposit
- Preferred RC Drilling Contractor secured to resume drilling operations at Cox's Find in the first week of December 2020

Great Southern Mining's Chief Executive Officer, Sean Gregory, commented:

*"We are pleased to announce that drilling operations at Cox's Find will resume next month. This follows our comprehensive geological review of the spectacular gold results encountered earlier during 2020. The drilling program seeks to expand on the Cox's Find high-grade gold mineralisation at depth and test 2 high priority near mine targets for possible repeats along strike. This is part of our broader plans across our portfolio of exploration projects where gold targets are now queueing up for drill testing."*



Figure 1 - Photo of RC Drilling at Cox's Find earlier during 2020.

Suite 4, 213 Balcatta Road,  
Balcatta, WA 6021 Australia

T (08) 9240 4111  
E [admin@gsml.com.au](mailto:admin@gsml.com.au)

[www.gsml.com.au](http://www.gsml.com.au)

ACN: 148 168 825  
ABN: 37 148 168 825

## Cox's Find Deposit Extensions

The recent drill results at Cox's Find not only included several spectacular high-grade intersections of up to **5m @ 80.0 g/t Au from 160m including 1m @ 404 g/t Au**, but also a highly significant **15m @ 1.01 g/t Au intercept from 167m** in hole 20CFRC034. The significance of this intercept is that it opens up an entirely new search space immediately to the south of the high-grade unmined panel delineated by recent spectacular high-grade drill intersections (Figure 2). The thickness of the intercept may be indicative of a mineralised halo surrounding a nearby high-grade extension to the Cox's Find orebody. Great Southern Mining (GSN) believe that the orientation of the high-grade shoot may be wrenching from their generally south-easterly plunge to the southern search space as a result of drag folding that aligns with south trending shear zones. The program will include up to five 200 m deep holes to test this southern search space.

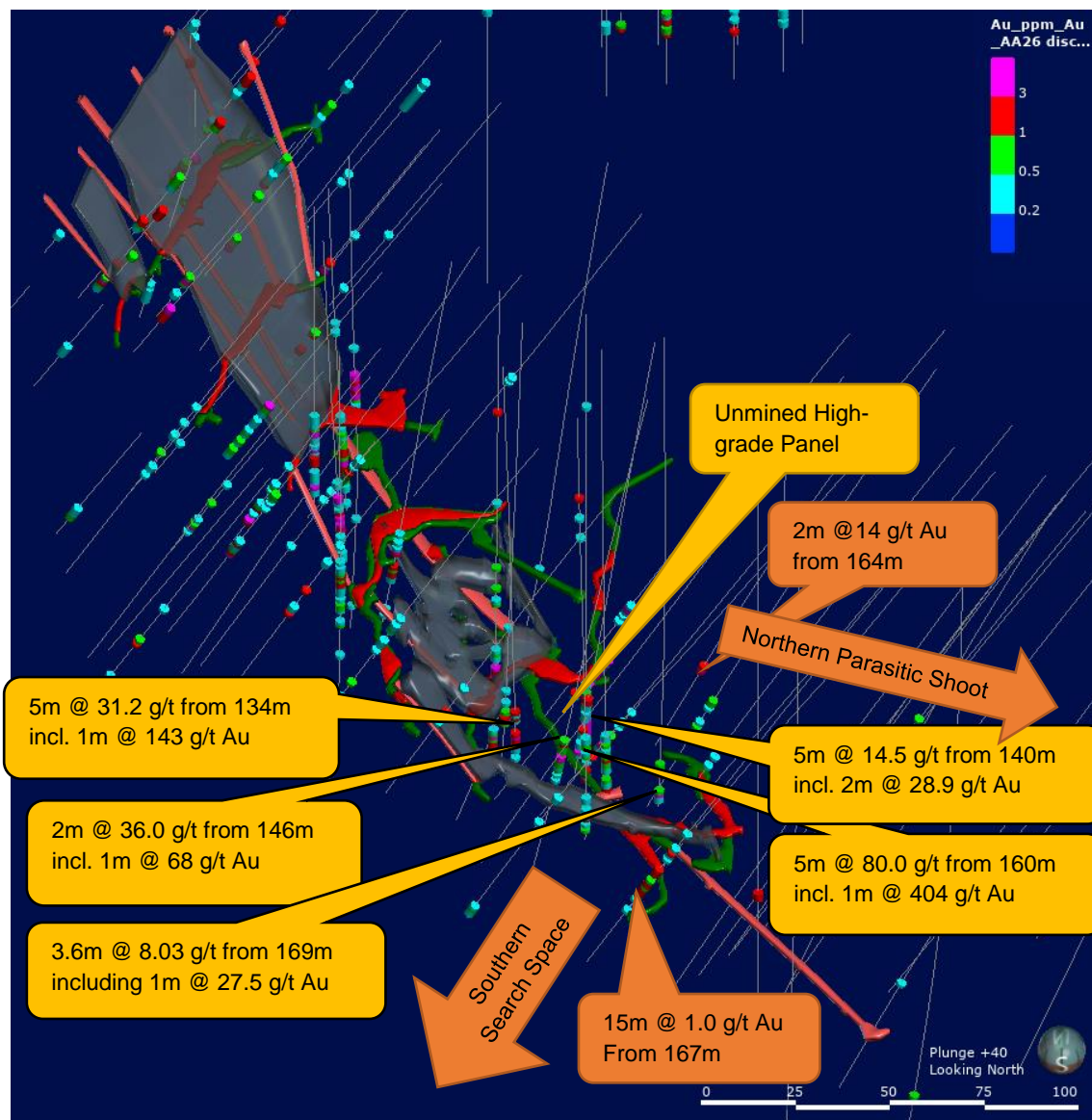


Figure 2 - 3D isometric looking north at the Cox's Find workings highlighting the modern drill results, unmined high-grade panel, and SE search space identified for follow up drilling. Refer to ASX Announcements 26/11/19, 4/12/19, 19/12/19, 29/7/20, 8/9/20 for details of Cox's Find drilling results.



## Near Mine Targets

The Cox's Find mining leases are highly prospective for repeats of the Cox's Find orebody to be discovered along strike from the historical workings which have produced 77,000 ounces of gold at an average grade of 22 g/t Au. The exploration model is to find repeats of the Cox's Find chert and shale target sequence that hosts the mineralisation where it intersects the main north-south trending mineralised structures. There are now multiple layers of exploration data that have coalesced into drill ready targets.

## Lithological Mapping

Fact based outcrop mapping of the Cox's Find chert and shale target sequence and interpretation of the trend of these horizons was completed in 1985 (WAMEX Report A18519) (Figure 3 left). This was further refined in 2019 when magnetic data was reprocessed by Fathom Geophysics Pty Ltd (Figure 3 right). The south east corner of M38/170 is especially interesting as the favourable lithologies are interpreted to be folded and intersect the main mineralised structures at a high angle in a similar fashion to that observed at the Cox's Find gold mine.

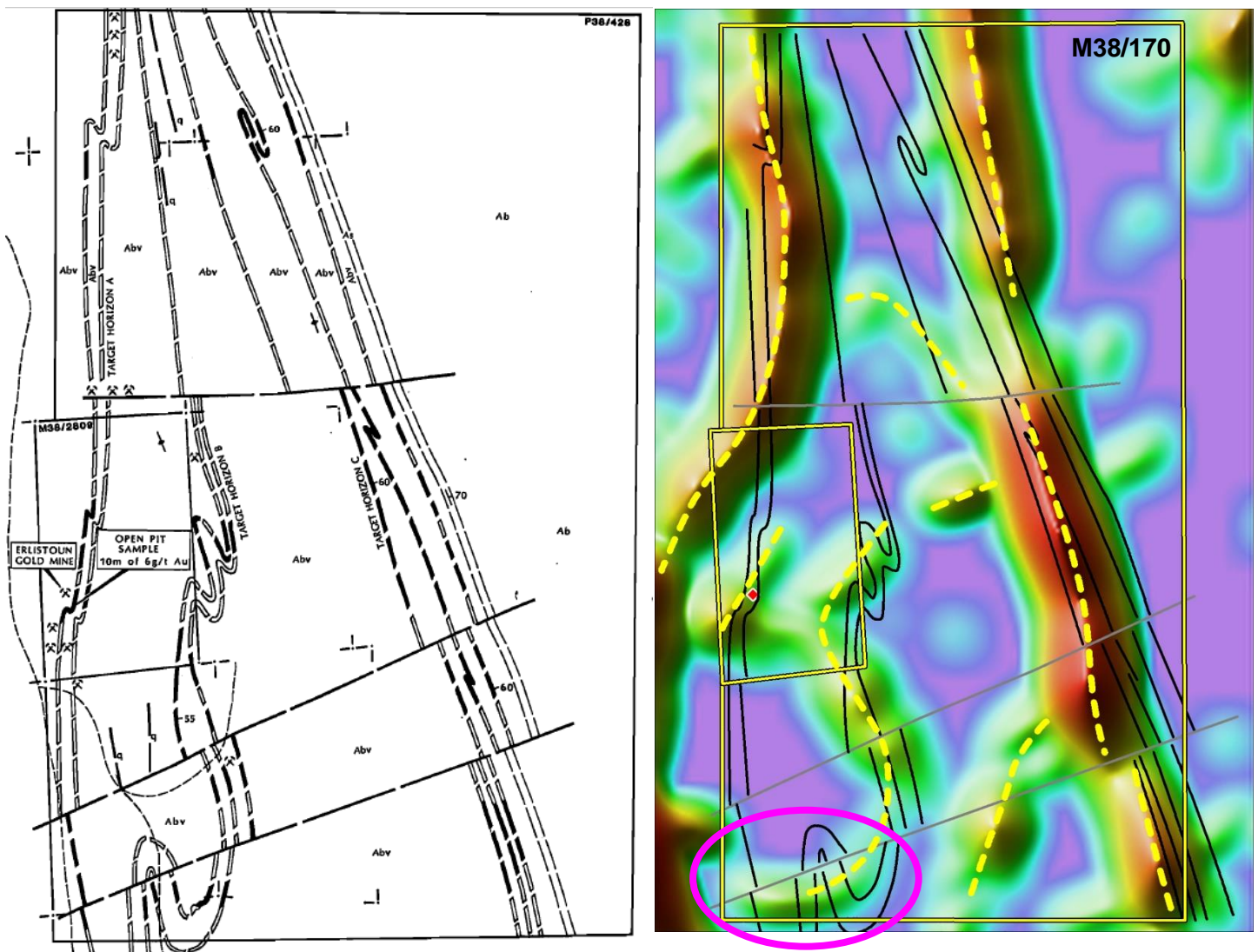


Figure 3 - Mapping the Cox's Find chert and shale target lithology with outcrop fact mapping in black and interpretation in white (left) and reprocessing of magnetic data (right) highlighting high priority target in pink.

## Structural Geology Interpretation

In 2019, GSN commissioned renowned structural geology experts Model Earth Pty Ltd to map the geology of the open pit workings and surrounding outcrops at Cox's Find to produce a 3D structural geology model of the Cox's Find Project. The model identified 7 targets where the favourable Cox's Find chert and shale lithologies intersect with the main north-south mineralised faults (Figure 4).

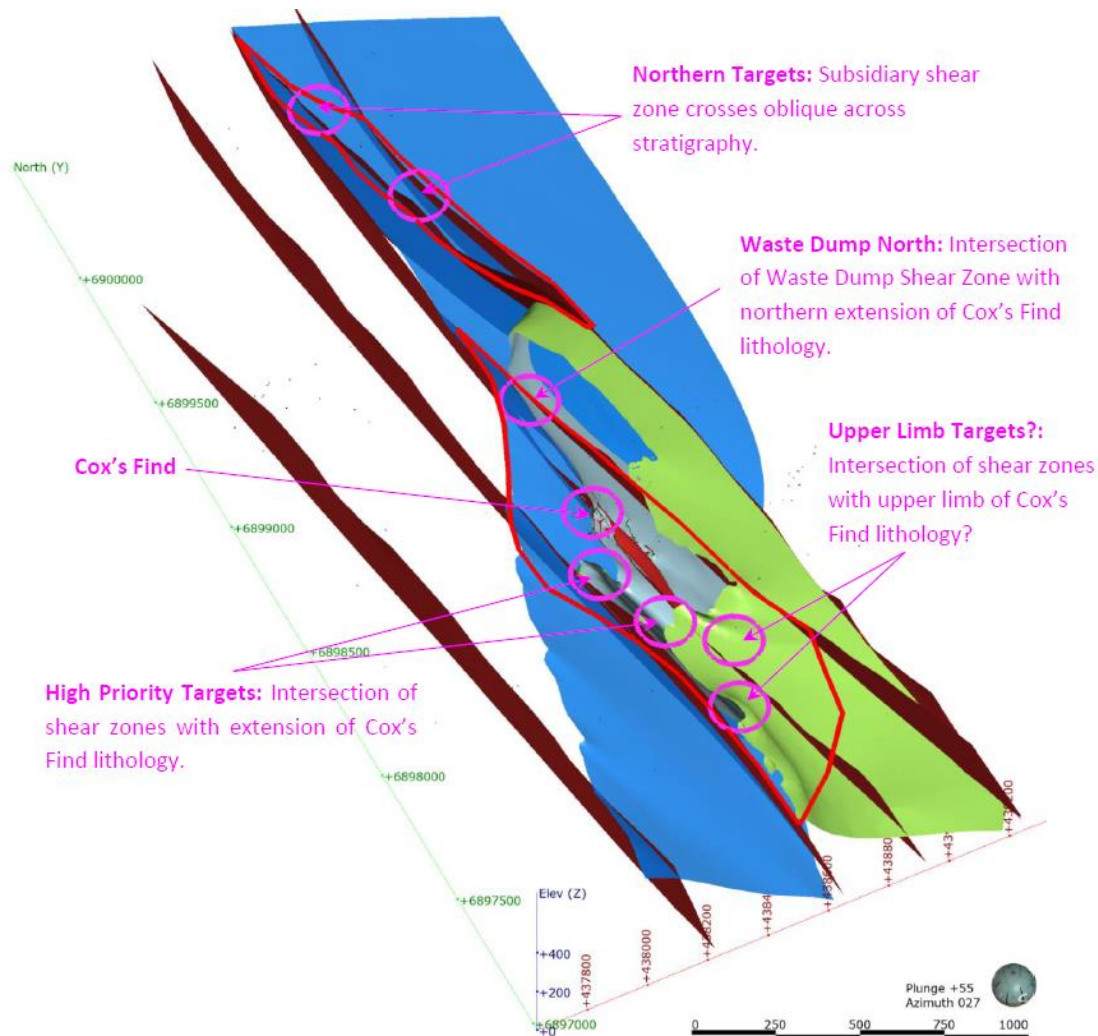


Figure 4 - Structural geology interpretation by Model Earth Pty Ltd identifying targets when the folded Cox's Find chert and shale lithology (green) intersects with the north-south mineralised structures (maroon). Note that the southern-most "Upper Limb Targets" targets are located on an adjacent tenement owned by Regis Resources Ltd.

## Geochemical Anomalies

In March 2020, Great Southern Mining conducted 1,150m of Aircore drilling for 350 holes on a nominal 100m x 50m grid across the Cox's Find project area. Samples were taken at 3m depth to ensure it was deep soil profile free from surface contamination. Analysis of gold and pathfinder elements (e.g. As, Cu, Zn, Bi, Se, W) identified the alteration halo around the Cox's Find deposit itself and several anomalies labeled A-G (Figure 5). The anomalies align with the mineralised structural trends and often with the mapped host lithologies.

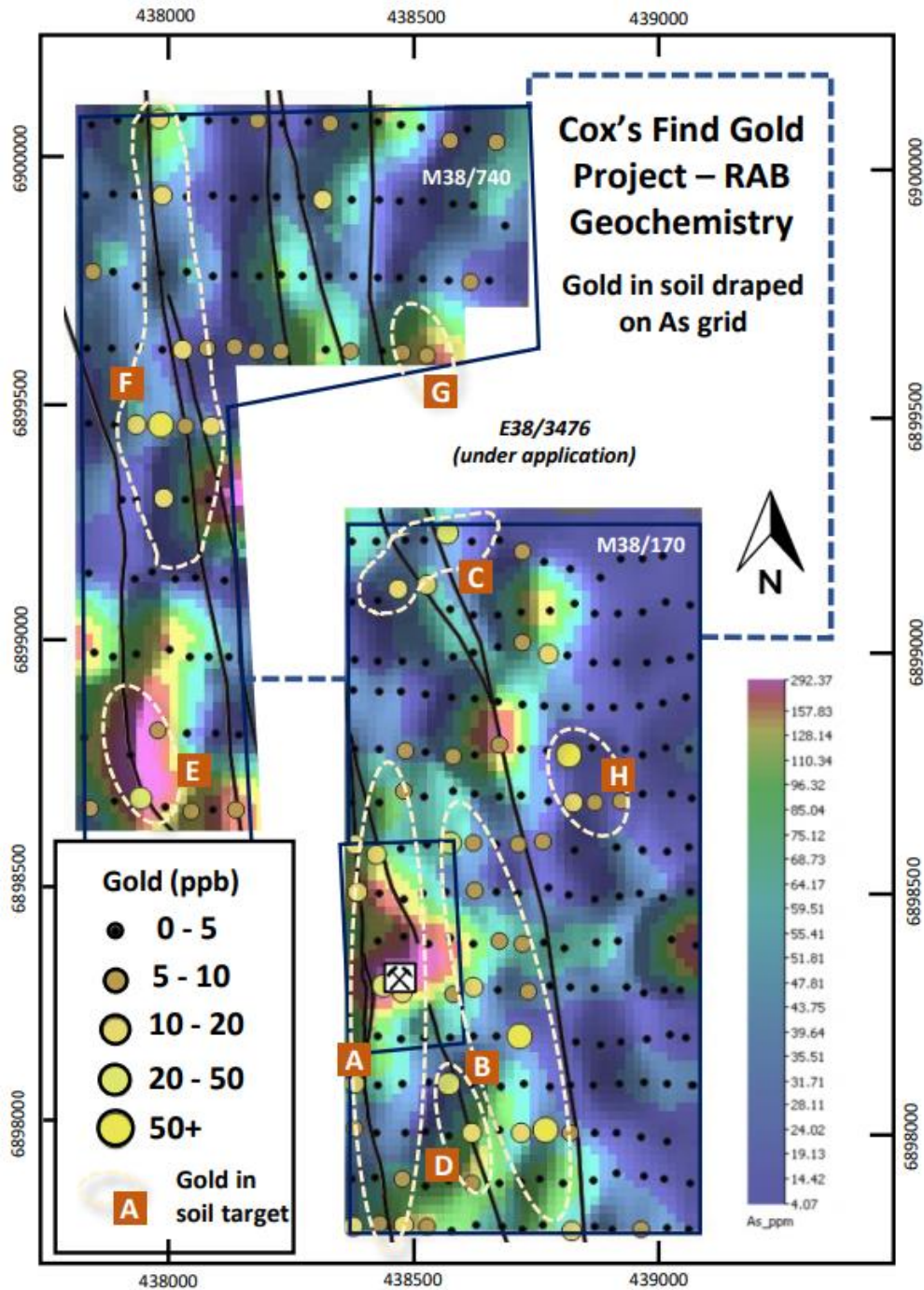


Figure 5 - Gold in soil plot draped on a gridded plot of arsenic in soil showing key structural features and defined anomalous gold zones

## Initial Target Testing

As reported to the market on 8 September 2020, GSN announced the highly encouraging results of the initial testing of targets 2 and 3 to the north of Cox's Find (Figure 6). Results included:

- 8m @ 1.1g/t gold from 91m including 2m @ 3.2 g/t Au (20CFNRC005)
- 6m @ 1.0g/t gold from 114m including 2m @ 1.7 g/t Au (20CFNRC006)
- 13m @ 0.7g/t gold from 34m including 1m @ 1.7 g/t Au (20CFRC0043)



## Planned Drilling

GSN has once again secured the services of its preferred Reverse Circulation (RC) drilling contractor to resume drilling operations at Cox's Find from the first week of December 2020. The drill program of up to 4,000m will initially include testing of three target areas:

- 1,000m to test the southern search space for extensions of the Cox's Find gold deposit
- 2,000m to test the highest ranked regional target located at the south east corner of M38/170 where the target lithologies, structures and geochemical anomalies all coexist.
- 1,000m to test the northern-most target where the main regional mineralised shear intersects cross-cutting structures and lithology.

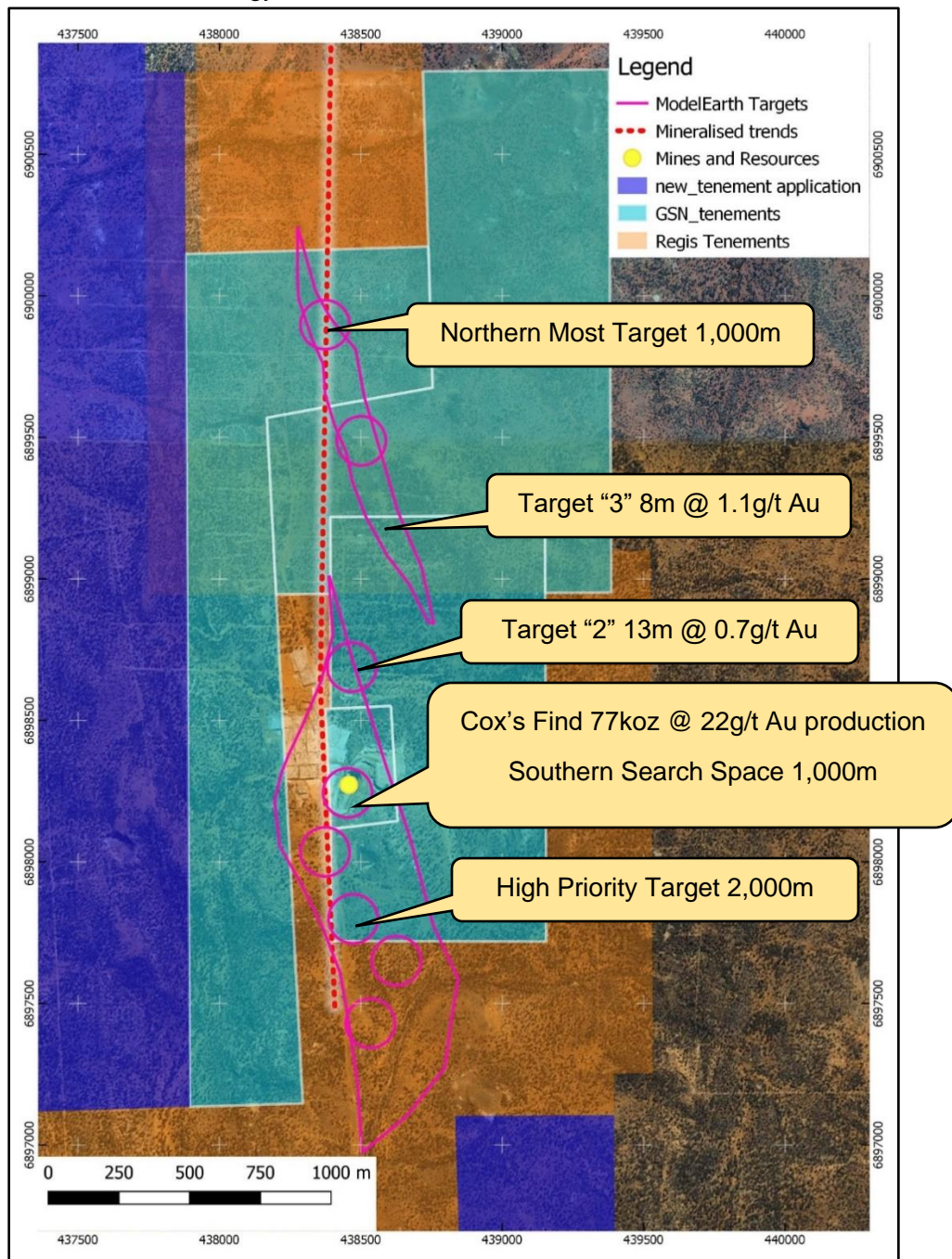


Figure 7 - Targets for Drill testing at Cox's Find

This announcement is authorised by the Board of GSN.

## **Cox's Find Background**

The Cox's Find Gold Project (Cox's Find) is a shear hosted Archaean orogenic gold deposit located in the Duketon Greenstone Belt in the Laverton Gold District of WA, located along strike from, and within 12kms of, Regis' multi-million-ounce Garden Well Gold Mine. The historical Cox's Find Gold Mine was operated by Western Mining Corporation (WMC) for a short period between 1937 and 1942 producing approximately 77,000 ounces of gold at a reported head grade of ~22 g/t from a vein stope operation.

## **About Great Southern Mining**

Great Southern Mining Limited is a leading Australian listed gold exploration company. With significant land holdings in the world-renowned gold districts of Laverton in Western Australia and the Mt Carlton in North Queensland, all projects are located within 25km of operating gold mills and major operations.

The Company's focus is on creating and capturing shareholder wealth through efficient exploration programs and strategic acquisitions of projects that complement the Company's existing portfolio of quality assets.

For further information regarding Great Southern Mining Limited please visit the ASX platform (ASX:GSN) or the Company's website [www.gsml.com.au](http://www.gsml.com.au).

## **Competent Person's Statement**

*The information in this report that relates to Exploration Results is based on information compiled or reviewed by Simon Buswell-Smith, a Competent Person who is a Member of the Australian Institute of Geoscientists. Mr. Buswell-Smith is Exploration Manager WA of Great Southern Mining Limited. Mr. Buswell-Smith 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'. This announcement contains information that has been extracted from a number of ASX announcements which have been referenced. The Company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcement.*

## **Forward Looking Statements**

*Forward-looking statements are only predictions and are not guaranteed. They are subject to known and unknown risks, uncertainties and assumptions, some of which are outside the control of the Company. Past performance is not necessarily a guide to future performance and no representation or warranty is made as to the likelihood of achievement or reasonableness of any forward-looking statements or other forecast. The occurrence of events in the future are subject to risks, uncertainties and other factors that may cause the Company's actual results, performance or achievements to differ from those referred to in this announcement. Given these uncertainties, recipients are cautioned not to place reliance on forward looking statements. Any forward-looking statements in this announcement speak only at the date of issue of this announcement. Subject to any continuing obligations under applicable law and the ASX Listing Rules, the Company, its directors, officers, employees and agents do not give any assurance or guarantee that the occurrence of the events referred to in this announcement will occur as contemplated.*