



**GREAT WESTERN MINING CORPORATION PLC**  
**("Great Western", "GWM" or the "Company")**

**RHYOLITE DOME EPITHERMAL GOLD TARGET**

Great Western Mining Corporation PLC (AIM – GWMO, Euronext Growth – 8GW) is pleased to report results from ongoing work on the highly prospective Rhyolite Dome gold target at its Olympic Gold Project in Nevada.

**HIGHLIGHTS**

- **Soil sampling results reveal Rhyolite Dome as a high priority gold target.**
- **Best grades include 61 ppb, 58 ppb and 51 ppb gold in recent samples and 207 ppb gold in legacy samples.**
- **Results include some of the strongest soil anomalism encountered to date at the Olympic Gold Project.**
- **Rhyolite Dome is further enriched with a suite of indicator elements, including silver, arsenic, and mercury.**
- **Rhyolite Dome is located at a crossover zone between northwest and north-northeast trending major fault sets.**
- **The Warrior, Hillside, Cute Maid and Lou epithermal gold deposits all lie along a 2.2 km trend, similar to the distance from OMCO to Rhyolite Dome.**
- **Other geological features that highlight prospectivity include a silica sinter, chalcedony veins and a mapped placer.**

**Great Western Chairman Brian Hall commented:** *"Multiple overlapping lines of evidence make Rhyolite Dome a high priority gold target for Great Western. The next step will be to conduct IP surveys over the structure to narrow down drill targets in three dimensions with the objective of establishing a discovery intercept. We look forward to updating shareholders on further progress in 2024".*

**Introduction**

Rhyolite Dome lies within the Olympic Gold Project, approximately 2 km southeast of the OMCO gold mine site and 15 km southeast of the Paradise Peak epithermal gold deposits. It is a rhyolite flow dome structure, surrounded by clay-altered andesite volcanics and rhyolitic tuffs, with scattered gold anomalies identified in grabs during 2023 (see RNS *Exploration Update* 10 July 2023). The target has never been drilled.

**Legacy soil data and new sampling**

Great Western has recently digitised legacy reconnaissance soil results. The dataset comprises multi-element results from 115 samples taken from Great Western's claims, arrayed in four northeasterly traverses. The traverse that crosses Rhyolite Dome contains some of the strongest soil anomalism encountered at the Olympic Gold Project, including 207 ppb gold and 1,780 ppb silver.

In general, the anomalies at Rhyolite Dome exceed those proximal to the OMCO Mine and Trafalgar Hill where known mineralisation occurs. This has prompted follow-up sampling at Rhyolite Dome, with a total of 145 new soil samples taken along six lines, with 100 m line spacing and 30 m sample spacing along each line.

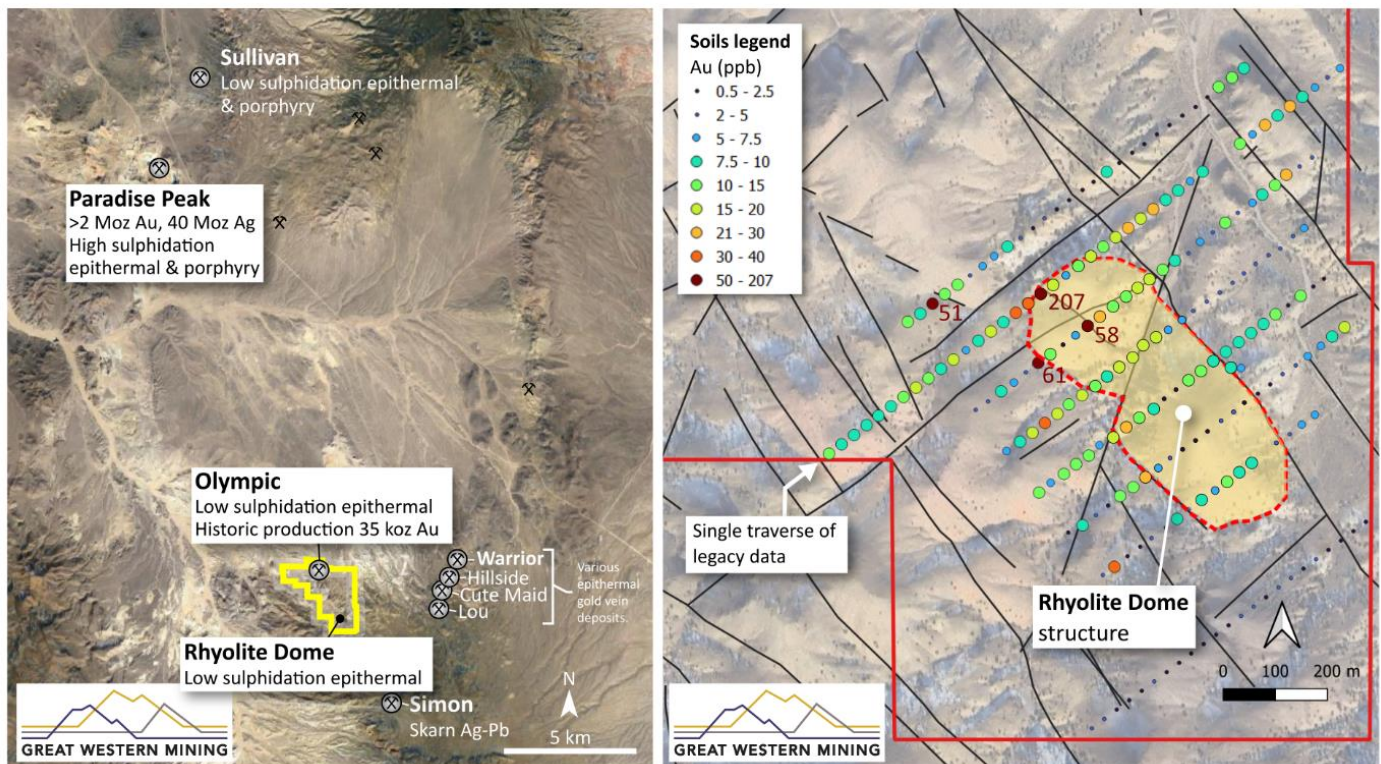
## Gold results

The gold results are highly positive. Of the 145 samples taken, 54 are > 10 ppb gold, 9 are > 20 ppb gold and three outliers contain 51, 58 and 61 ppb gold (values above 5 ppb have been treated as anomalous for gold). The best gold results in the new data are clustered near the location of the peak legacy data sample (at 207 ppb gold). Based on these results, the northwest side of Rhyolite Dome appears most prospective.

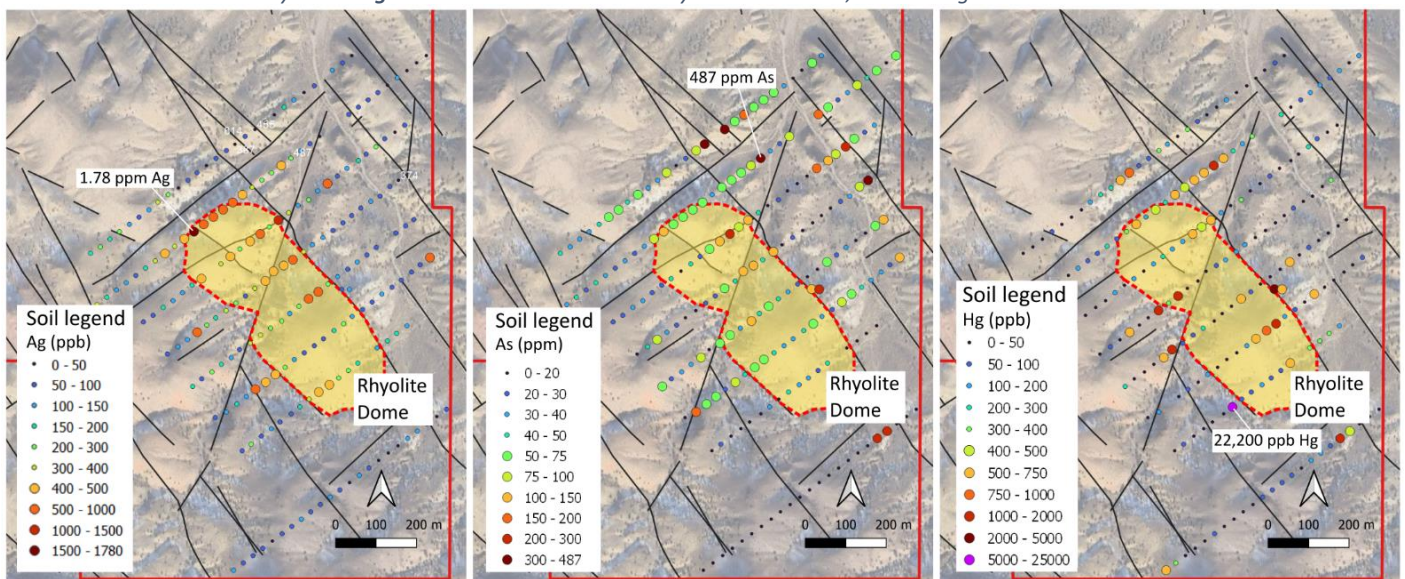
## Multiple prospectivity indicators

A strong prospectivity picture is developing at Rhyolite Dome. Additional indicators include:

- **Other metals:** Silver, arsenic and mercury, all of which are also indicative of low-sulphidation epithermal mineralisation, are enriched in Rhyolite Dome area and show good correlation with gold and local structures (Figure 2).
- **Geology:** Rhyolite flow domes are associated with thermal centres in epithermal systems forming above vertical lava conduits.
- **Textures:** On the southern margin of the dome structure, chalcedonic stockwork veins were identified during soil sampling. Stockworks of this type are typically found above the ore zone in low-sulphidation systems.
- **Hot spring deposits:** Surface deposits of amorphous silica (sinters) flooding into lake sediments have been identified by GWM on the northwest flank of the dome structure. Sintars are another feature typically found above low-sulphidation centres.
- **Fluid pathways:** Rhyolite Dome area lies at a crossover zone between northwest and north-northeast trending major fault sets. These structures may have provided vertical plumbing for both molten rock and mineralising fluids. Metal anomalies are aligned along interpreted structures.
- **Placers:** A legacy geological map indicates both outcropping quartz and a 'gold placer', less than 200 m north of the previous best gold soils results at Rhyolite Dome and topographically lower. Placers form from the erosion of outcropping gold mineralisation and subsequent deposition of gold detritus.
- **Neighbouring deposits:** To the east of Olympic, the Warrior, Hillside, Cute Maid and Lou epithermal gold deposits all lie along a 2.2 km trend, similar to the distance from OMCO to Rhyolite Dome. These deposits are each located on north-northwest trending structures - a matching orientation to the OMCO-RH trend.

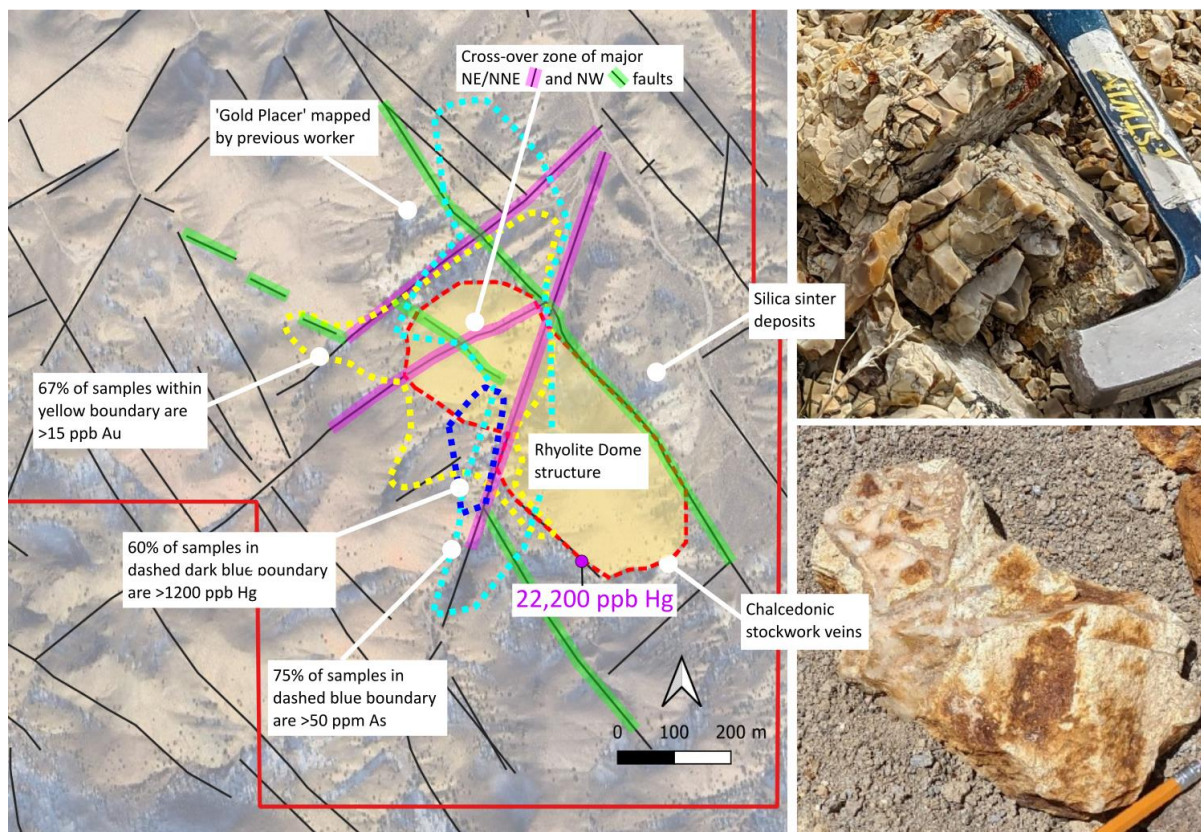


**Figure 1. Left:** Locations of Olympic and Rhyolite Dome relative to other mines in the region. Great Western claims in yellow. **Right:** Gold distribution across Rhyolite Dome area, note strongest values in northwest.



**Figure 2. Elemental abundances of silver, arsenic and mercury in soils over Rhyolite dome area.**





**Figure 3.** Overlapping geochemical, geological and structural indicators.

## ADDITIONAL INFORMATION

All soil samples were processed by Paragon Geochemical Laboratories, Reno, Nevada. Samples were screened to -80 mesh and analysed by method FSAU-25, aqua regia digest with ICP-MS finish for a 51-element suite. Quality control samples were inserted by the company and results reviewed prior to release.

Note on units – gold, silver and mercury are quoted in parts per billion (ppb), and arsenic in parts per million (ppm).

## QUALIFIED PERSON STATEMENT

The information in this announcement that relates to exploration results is based on information reviewed by Dr James Blight MGeol PhD MAusIMM who is Exploration Manager of Great Western Mining PLC. Dr Blight is a “Qualified Person” as defined in the “Note for Mining and Oil & Gas Companies” which form part of the AIM Rules for Companies. Dr Blight has reviewed and consented to the inclusion in the announcement of the information in the form and context in which it appears.

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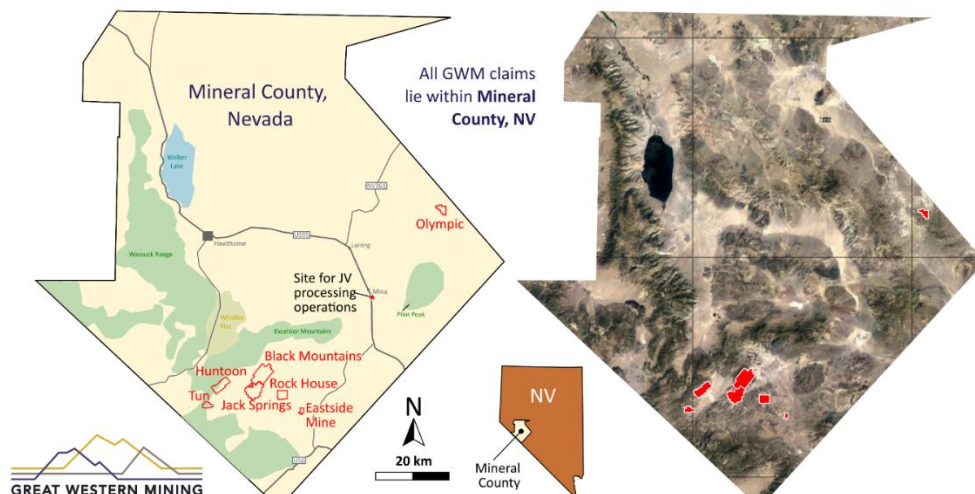
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### Notes to Editors

The Company has a large tract of acreage in Mineral County, Nevada. The area consists of rugged, mountainous terrain, which means that large parts of it remain under-explored. Mineral potential is hosted by the regional Walker Lane Structural Belt, the largest structural and metallogenic belt in Nevada, yet one of the least explored in recent times, with gold, silver and copper currently produced in Mineral County. Great Western has seven distinct concession areas which offer the potential for exploiting (1) short term gold and silver deposits and (2) long-term, world-class copper deposits.

Six of the Company's properties are in the west of Mineral County and are 100% owned and operated. The Company has an option to acquire a seventh property, the Olympic Gold Project, in the east of the county. Great Western's small exploration team is supported by locally based consultants and contractors.



The state of Nevada is considered to be one of the world's most mining friendly jurisdictions. While tightly regulated and environmentally conscious, Nevada welcomes the mining industry. Great Western takes care to ensure that its claims are maintained in good standing and all regulations observed.

There are numerous gold and silver prospects on the Company's acreage, including extensive historic mine workings which offer the opportunity for secondary recovery. The Company is party to a 50-50 joint venture known as Western Milling LLC which is constructing a mill to process pre-mined material for secondary recovery of gold and silver.

Furthermore, through extensive drilling over a five-year period, GWM has established a Mineral Resource on its first target area known as M2, of 4.3 million tonnes at 0.45% copper, for 19,000 tonnes of contained copper metal. This resource has been independently reported in accordance with JORC guidelines.

GWM has also established an Inferred Resource Estimate of 31,000 tonnes grading 1.6 g/t gold and 3.0 g/t silver in tailings associated with the OMCO Mine at the Olympic Gold Project. Additionally, exploration targets have been independently reported as follows:

- 3,400 – 6,400 tonnes grading between 0.5 and 1.2 g/t Au and 1.2 and 2.1 g/t Ag in the substrate beneath the tailings volume at the Olympic Mine.
- 9,000 – 12,000 tonnes grading between 0.9 and 2.4 g/t Au and 2.0 and 5.1 g/t Ag in a coarse stockpile at Olympic Mine.
- 4,200 – 7,700 tonnes grading between 40 and 140 g/t Ag and 0.3 and 0.3 g/t Au in spoil heaps at Mineral Jackpot.