

Monday 20 February 2023

CARLIN-TYPE GOLD GEOCHEMISTRY DEFINED AT HIGH-GRADE WHITE CAPS PROJECT, NEVADA

- Gold 50's initial soil sampling **program has defined a 2 km zone of key pathfinder elements for Carlin-type gold deposits** at the White Caps Project
- Gold, arsenic, mercury antimony, and thallium are all strongly anomalous
- **One-third of the 276 soil samples returned > 0.1g/t gold (> 100 ppb)**
- **Gold averaged 0.527 g/t and mercury (Hg) averaged 4.44 ppm across these 92 samples.** Greater than 1 ppm Hg in soils is considered highly anomalous
- This program represents the first step in applying modern exploration techniques at the property in more than **two decades**
- High-grade White Caps Mine produced more than **125,000 ounces at circa 30g/t gold**
- **Multiple untested near-mine and district targets** remain to be drilled
- Trenching of the 2 km zone to begin in early March, 2023

Gold 50 Ltd (G50 or the Company) (ASX: G50) is pleased to announce the outstanding outcomes of the Company's initial soil sampling program at the recently acquired White Caps Project ("WCP") in Nye County, Nevada. (See ASX announcement, 'Acquisition of High-Grade White Caps Gold Project' dated 9 November 2022).

The soil sampling program defined a strongly anomalous zone over 2km along strike from the high-grade White Caps Mine on patented claims (private land). Arsenic, mercury, antimony and thallium - the key pathfinder elements for Carlin-style gold deposits were all very anomalous.

Gold 50's Managing Director, Mark Wallace, commented:

"Our initial White Caps exploration program has exceeded our expectations by confirming that the project is highly prospective for Carlin-style gold mineralisation.

"We already knew that the White Caps Project area had the right rocks and structures for Carlin-style gold deposits. Historical work had never confirmed the presence of the Carlin-style pathfinders and the consistency and scale of these results outperform even our most optimistic expectations.

"Our plan is to define drill targets by trenching across the prospective zones, completing a drone magnetic survey, and undertaking field mapping. Working on our Patented claims means workflows can be completed quickly.

"G50 has the team in place to continue working up White Caps and we look forward to updating the market soon on assays from our initial two diamond drill holes at our flagship Golconda Project in Arizona. RC drilling is to commence by the end of the month."

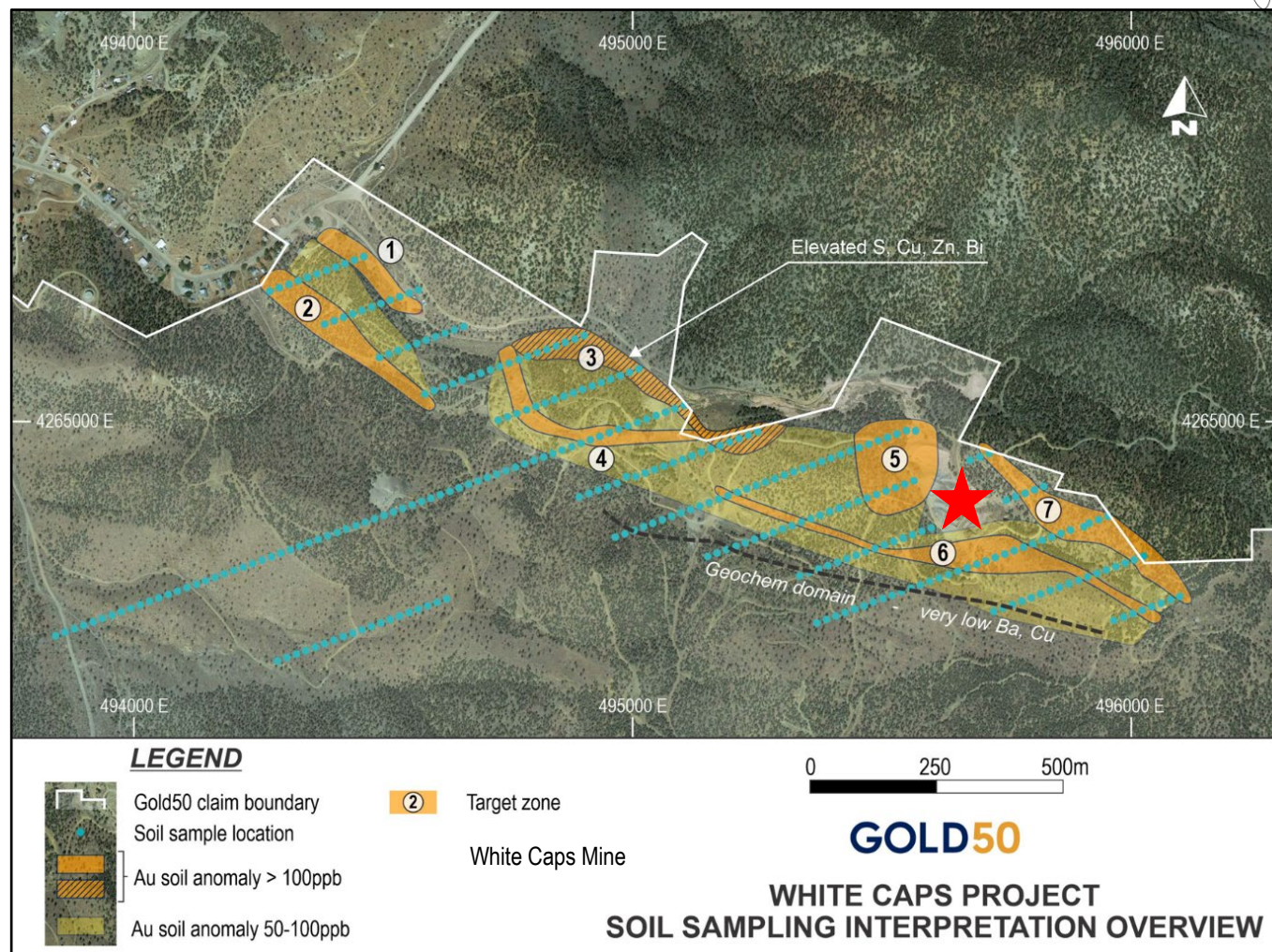


Figure 1 - Plan summarising outcomes from White Caps Soil Sampling

The soil sampling program comprised 276 samples collected on Gold 50's patented claims. The program targeted structural intersections within the west-northwest striking Cambrian White Caps Limestone unit and cross-cutting north-south faults.

Of the 276 samples, **92 (33%) of the samples assayed greater than 0.1ppm or 0.1g/t gold, which is considered to be highly anomalous.** The average gold content across these 92 samples was 0.527 ppm (= 0.527g/t). The ten best samples ranged from 0.9g/t to 7.5g/t gold.

Carlin-style pathfinder elements including arsenic, mercury, antimony, and thallium were all present and highly anomalous. The numerical averages of the assays for all 276 samples and the subset of the 92 highly anomalous samples are presented in Table 1 below:

	Gold (ppm)	Arsenic (ppm)	Mercury (ppm)	Antimony (ppm)	Thallium (ppm)
92 samples	0.527	500.3	4.44	98.6	2.16
276 samples	0.207	250.8	1.59	43.0	0.91

Table 1 - Averages of White Caps Soil Sample Results

The results for mercury are particularly encouraging as any assay with > 1ppm mercury is considered a strong result. **The average mercury response across the 276 samples of 1.59 ppm is highly anomalous.**

Figure 1 above shows the location of the 276 soil samples and extensive zones with > 50ppb gold over approximately 2km of strike.

The seven target zones identified for follow-up are focussed on the most anomalous assays for the pathfinder elements noted in Table 1. Target Zone 3 also has elevated sulphur, copper, zinc, and bismuth.

The White Caps Gold Mine is located between Target Zones 5, 6, and 7, which was not sampled due to significant surface disturbance. The soil sampling program took great care in avoiding disturbed areas and 33 planned samples were not collected due to surface disturbance and potential contamination, primarily caused by historical mining.

Photos showing the sample pit, sample number and representative sample material were taken at each sample site utilizing a theodolite-type app that captured the day, time and coordinates for each location.

Mineralisation at the White Caps Mine is concentrated along structural intersections within the Cambrian White Caps Limestone unit which averages 20m in thickness. Numerous cross-cutting north-south faults localise mineralisation within the host carbonates. **The soil sampling program and highly anomalous soil results extend well outside of the White Caps Limestone, increasing our understanding and targeting of the district potential of the White Caps Project.**



Figure 2 - Soil sampling at White Caps Project

The assay ranges for all 276 samples and the subset of the 92 highly anomalous samples are presented in Table 2 below:

	Gold (ppm)	Arsenic (ppm)	Mercury (ppm)	Antimony (ppm)	Thallium (ppm)
92 samples - maximum	7.48	9170	61.1	1870	33
92 samples - minimum	0.1	37.6	0.04	4.02	0.22
276 samples - maximum	7.48	9170	61.1	1870	33
276 samples - minimum	0.007	7	0.01	0.01	0.02

Table 2 - Ranges of White Caps Soil Sample Result

Geology and Exploration Potential

Gold 50 plans to undertake a first principles approach of exploring across the property including mapping, trenching and geophysics before an initial drilling program in H2 2023.

Located in central Nevada within the historic Manhattan Mining District and the underexplored Walker Lane Trend, the WCP covers an area of **10 km²** with **28 patented claims and 74 unpatented claims**.

White Caps is a significant historical gold mine located only 15km south of the Round Mountain Gold Mine owned by Kinross which still has ore reserves of 3 million ounces after producing more than 15 million ounces.



Figure 3 - Location of White Caps Project and Gold 50's other projects in Nevada and Arizona

Historical mining and exploration have focussed on high-grade replacement-style mineralisation hosted by limestone with the gold associated with arsenic, antimony and mercury (typical of Carlin-style gold deposits).

The WCP is located in the southern Toiyama Range which is a block-faulted horst of the Basin and Range Province. The Project area is underlain by Cambrian and Ordovician sedimentary rocks that were intruded by a Cretaceous granitic pluton on the southeast portion of the district. A substantial amount of thrust faulting and high-angle faulting has occurred throughout the area. The sedimentary rocks are buried by volcanic rocks of the Tertiary Manhattan Caldera on the northern edge of the property.

Mineralisation generally dips moderately to the south at approximately 50° and is open at depth. Low- and moderate-grade (<10g/t gold) targets may exist within the White Caps Mine in the vicinity of the historically mined high-grade (>10g/t gold) mineralisation. Notably, the cross-cut on the lowest level of the White Caps Mine assayed **10m at 94g/t gold**.

Numerous historic mines and widespread gold occurrences are located along the Manhattan Fault, a major west-northwest structure. Within the WCP, mineralised carbonate rocks provide a **favourable host for gold mineralisation over 3km of strike length**.

The White Caps Limestone is within a 600m thick Cambrian sequence containing mineralised carbonate units that may also be favourable host rocks. There is good potential to define thicker zones of mineralisation around historic workings as the lower gradlower-grade(<10g/t gold) was largely ignored. **The prospective geology and historical mining indicate that the WCP is a district play, not just a high-grade underground target that remains open at depth.**

This announcement has been approved for release by the Board of Gold 50.

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Competent Persons Statement

The information in this announcement that relates to Exploration Results is based on information compiled by Wade Johnston, a Competent Person who is a Certified Professional Geologist licensed by the American Institute of Professional Geologists ("AIPG"). Wade Johnston is a consultant to Gold 50 who 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'. Mr Johnston consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

Historical Exploration Data

Various prospectors and companies have undertaken mineral exploration at the WCP over time. There are no exploration reporting requirements in Nevada, and as a result there are no government records of the results of any previous exploration work.

The information on the WCP available to Gold 50 includes unpublished reports as well as information obtained from publicly available sources.

Inspection of the available reports covering the historical exploration provides limited to no information regarding quality control and quality assurance ("QA/QC") procedures that were followed. In addition, there is limited or no information in respect to such items as; sample type, sample size, where or how the samples were prepared for analysis, what analytical methods were utilised to determine the various elements, what if any standards, replicates and blanks were inserted into the sample batches, etc.

APPENDIX A

JORC Code (2012) Table 1, Sections 1 and 2, Gold 50 White Caps Project

Section 1 Sampling Techniques and Data

Criteria	JORC Code Explanation	
Sampling techniques	<ul style="list-style-type: none"> Nature and quality of sampling Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used. Aspects of the determination of mineralisation that are Material to the Public Report. 	<ul style="list-style-type: none"> Industry standard methods were used for the collection, preparation and analysis of the samples. Samples were collected from the B/C soil horizon contact. Samples were collected from the bottom of the B horizon and screened in the field to passing 0.25 inch.
Drilling techniques	<ul style="list-style-type: none"> Drill type and details 	<ul style="list-style-type: none"> Not applicable.
Drill sample recovery	<ul style="list-style-type: none"> Method of recording and assessing core and chip sample recoveries and results assessed. Measures taken to maximise sample recovery and ensure representative nature of the samples. Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material. 	<ul style="list-style-type: none"> Not applicable.
Logging	<ul style="list-style-type: none"> Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies. Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography. The total length and percentage of the relevant intersections logged. 	<ul style="list-style-type: none"> Not applicable.
Sub-sampling techniques and sample preparation	<ul style="list-style-type: none"> If core, whether cut or sawn and whether quarter, half or all core taken. If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry. For all sample types, the nature, quality and appropriateness of the sample preparation technique. Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples. Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling. Whether sample sizes are appropriate to the grain size of the material being sampled. 	<ul style="list-style-type: none"> Based on previous exploration in the area for this style of mineralisation, the sample size is appropriate. Samples are considered representative of the in-situ soils.
Quality of assay data and laboratory tests	<ul style="list-style-type: none"> The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total. For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc. Nature of quality control procedures adopted (e.g. 	<ul style="list-style-type: none"> Samples were analysed by Paragon Geochemical in Reno, Nevada using fire assay with a 30g charge, aqua regia 2 acid digestion and ICP mass spectrometry Acceptable levels of accuracy were established.

Criteria	JORC Code Explanation	
	<i>standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.</i>	
Verification of sampling and assaying	<ul style="list-style-type: none"> The verification of significant intersections by either independent or alternative company personnel. The use of twinned holes. Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols. Discuss any adjustment to assay data. 	<ul style="list-style-type: none"> Not applicable.
Location of data points	<ul style="list-style-type: none"> Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation. Specification of the grid system used. Quality and adequacy of topographic control. 	<ul style="list-style-type: none"> Hand held GPS units were used to locate each sample site with an estimated accuracy of c.2m. Grid system used is NAD 83 / UTM Z11.
Data spacing and distribution	<ul style="list-style-type: none"> Data spacing for reporting of Exploration Results. Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied. Whether sample compositing has been applied. 	<ul style="list-style-type: none"> Samples were generally collected 20 m apart on east-northeast trending lines approximately 100 m apart. Data spacing and distribution is not relevant to Resource estimation. Sample compositing has not been applied.
Orientation of data in relation to geological structure	<ul style="list-style-type: none"> Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type. If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material. 	<ul style="list-style-type: none"> Not applicable.
Sample security	<ul style="list-style-type: none"> The measures taken to ensure sample security. 	<ul style="list-style-type: none"> All samples remained in secure possession of Brewer Exploration personnel from the time of collection to the time of shipment to Paragon Geochemical Laboratory in Reno, Nevada.
Audits or reviews	<ul style="list-style-type: none"> The results of any audits or reviews of sampling techniques and data. 	<ul style="list-style-type: none"> No audits or reviews were taken.

Section 2 Reporting of Exploration Results

(Criteria listed in the preceding section also apply to this section.)

Criteria	JORC Code explanation											
<i>Mineral tenement and land tenure status</i>	<ul style="list-style-type: none">Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.	<p>The White Caps Project is located on:</p> <ol style="list-style-type: none">28 patented mining claims; and74 unpatented mining claims located on US federal land administered by BLM. <p>The mining claims are under a Lease and Option to Purchase agreement with private vendors to acquire 100% of the Project. The term of the agreement is ten years.</p> <p>Gold 50 has the exclusive option to purchase the Project over a 10-year term (from execution of the Agreement) by making the below payments:</p> <p>Payment to Vendors Milestone (US\$'s)</p> <table><tr><td>US\$0.50 million</td><td>Signing of agreement</td></tr><tr><td>US\$1.50 million</td><td>Mineral Reserve Estimate of 250,000 ounces of gold at a grade of at least 2.5g/t gold</td></tr><tr><td>US\$5.25 million</td><td>Decision to mine</td></tr><tr><td>US\$2.75 million</td><td>Commencement of mining</td></tr><tr><td>US\$10.0 million</td><td>Total payments to vendors</td></tr></table> <ul style="list-style-type: none">The vendors retain a 2.0% net smelter return ("NSR") royalty and there are no other private royalties. .Gold 50 acquired the lease on 7 / 11 / 2022.Tenure is in good standing. The project is located in the Manhattan District of Nevada. The area has a long history of mining, and Gold 50 does not expect any impediments to obtaining a licence to operate.	US\$0.50 million	Signing of agreement	US\$1.50 million	Mineral Reserve Estimate of 250,000 ounces of gold at a grade of at least 2.5g/t gold	US\$5.25 million	Decision to mine	US\$2.75 million	Commencement of mining	US\$10.0 million	Total payments to vendors
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<i>Exploration done by other parties</i>	<ul style="list-style-type: none">Acknowledgment and appraisal of exploration by other parties.	<p>The detailed exploration history was sourced from Saunders (2021).</p>										

Criteria	JORC Code explanation	
		<p>Silver mineralisation was discovered south of Manhattan in 1866, with minor production until 1869. The Manhattan district was established in 1905 and produced 600,000 ounces of gold from open pit mines, underground mines and placer operations.</p> <p>Gold production continued until 1942, when all mines, except the White Caps Mine, were closed due to the Federal L208 closure order. White Caps was allowed to continue mining until 1954 and had later attempts at developing ore zones until the shaft burnt down in 1964. The White Caps mine was the deepest mine in the district and was mined to a depth of 1,300 ft. below the surface. It is estimated that the mine produced 125,000 to 150,000 ounces of gold.</p> <p>Argus Resources, Inc. acquired the White Caps mine and adjacent mines in 1972.</p> <p>Freeport conducted district-wide exploration during the 1980s. Extensive soil and outcrop sampling was undertaken, and 91 holes were drilled, totalling 41,900 ft. in several areas. A total of 75 drill holes (11,642 m) were completed in the area of the White Caps, Manhattan Consolidated, Earl, Bath and Amalgamated mines under an agreement with Argus Resources Inc., to test shallow and deep-seated potential. Of these, 45 drill holes totalling 8,131 m were located within the White Caps Tenement boundary. Significant intercepts from this drilling exist, but few original records verify these results.</p> <p>Nevada Manhattan Mining Company began exploring the area in 1986 and conducted a waste dump sampling program. The average grade was 0.206 opt gold. They also completed surface and underground rock chip sampling, mercury soil survey and a Schlumberger resistivity geophysical survey. Five drill holes were drilled in 1988, with two being in the vicinity of the White Caps Mine. No exploration results from this period can be sourced.</p> <p>In 1995, Calais commissioned a magnetotellurics survey over the entire property. This survey showed a series of anomalies that occur in a linear trend parallel to the general strike of the Paleozoic rocks in the Manhattan South area. A drill program was completed in 1997 to target magnetotellurics anomalies. The results were inconclusive in testing the target and showed that anomalous gold mineralisation is associated with some magnetic anomalies. No exploration results from this period can be sourced.</p>
Geology	<ul style="list-style-type: none"> <i>Deposit type, geological setting and style of mineralisation.</i> 	<p>Mineralisation is a disseminated gold limestone replacement deposit with associated arsenic, mercury, and antimony (stibnite). The mineralisation is focused on structural intersections within the White Caps limestone, the uppermost of three limestone units within the Gold Hill Formation. The White Caps Limestone is typically 30 to 35 ft. in thickness, but thicknesses up to 75 ft. have been reported. The Pine Nut and Morning Glory limestone units are thinner and were not mineralised at the White Caps mine, but</p>

Criteria	JORC Code explanation	
		<p>have been known to be mineralised elsewhere. Mineralisation in the limestone is structurally controlled between the West and East faults.</p> <p>The White Caps Mine was unique in the district, being high in arsenic and antimony with a gold to silver ratio of 17:1.</p>
Drill hole Information	<ul style="list-style-type: none"> A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes: <ul style="list-style-type: none"> easting and northing of the drill hole collar elevation or RL (Reduced Level - elevation above sea level in metres) of the drill hole collar dip and azimuth of the hole down hole length and interception depth hole length. If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case. 	<ul style="list-style-type: none"> Not applicable.
Data aggregation methods	<ul style="list-style-type: none"> In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated. Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail. The assumptions used for any reporting of metal equivalent values should be clearly stated. 	<ul style="list-style-type: none"> Not applicable.
Relationship between mineralisation widths and intercept lengths	<ul style="list-style-type: none"> These relationships are particularly important in the reporting of Exploration Results. If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported. If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g. 'down hole length, true width not known'). 	<ul style="list-style-type: none"> Not applicable.
Diagrams	<ul style="list-style-type: none"> Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported. These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views. 	<ul style="list-style-type: none"> Plan showing soil sample locations provided in body of announcement.
Balanced reporting	<ul style="list-style-type: none"> Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results. 	<ul style="list-style-type: none"> Low, high and average sample grades have been reported.
Other substantive exploration data	<ul style="list-style-type: none"> Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey 	<ul style="list-style-type: none"> No other exploration data is presently available that is considered material to the results reported in the announcement. The tenement has been subject to exploration and mining for over a

Criteria	JORC Code explanation	
	<i>results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.</i>	century, and a large body of historical exploration data likely exists. Gold 50 will continue to make efforts to source this data as part of the future exploration program on the tenement.
<i>Further work</i>	<ul style="list-style-type: none"> • <i>The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).</i> • <i>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</i> 	<ul style="list-style-type: none"> • Gold 50 plans to undertake further geological, geochemical and geophysical surveys prior to drilling the White Caps Project. • Appropriate diagrams have been included in the body of the announcement.



GOLD50

ABOUT GOLD 50

Gold 50 is a precious metals exploration company focussed on the Southwest of the United States of America. Gold 50 currently operates in Arizona at its Golconda Project and in the Walker Lane Trend of Nevada at its White Caps, Spitfire, Caisson, Broken Hills and Top Gun Projects.