A report prepared for Christopher James Gold Corporation

COMMENTS ON THE APPALOOSA GOLD-SILVER PROSPECT, TALAPOOSA DISTRICT, NEVADA

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•SUMMARY

▪A one-day inspection of the Appaloosa sector of the Talapoosa gold-silver district, Nevada confirmed that the prominent silicified breccias are transgressive and of hydrothermal origin rather than being integral parts of the mid-Miocene stratigraphy.

▪The breccias are interpreted to have formed in a lacustrine environment following silicification of epiclastic sediments by ascendant hydrothermal fluids. The breccias fill fault-controlled vents, but may have been surmounted by aprons of hydrothermal eruption breccia now lost to erosion.

▪During waning stages of brecciation, a series of steep chalcedony veins were generated, many also controlled by the same fault sets as the preceding breccia vents. The vein chalcedony contains elevated As, Sb, Hg and Mo values, but only low-order gold and silver tenors.

▪Such poorly mineralized veins, dominated by chalcedony, commonly overlie low-sulphidation epithermal ore shoots, in which bonanza-grade gold and silver values can occur. Lower-grade mineralization can also be present if the master veins are accompanied by stockwork, as they reportedly are in the Bear Creek zone at Talapoosa.

▪The depth to any such precious-metal ore shoots is difficult to predict, but could range from a few tens to 200-300 m below the paleosurface, which is likely to have been not too far above the present surface. Given the elevation difference between the Appaloosa sector and Bear Creek zone, the latter depth figure seems the more likely.

▪The proposed drill testing of the Appaloosa sector is endorsed. Initial core drilling using pairs of scissor holes is recommended, with every effort being made to intersect the vein feeders at a vertical depth of roughly 150 m. Additional drilling will be guided by the initial geological and assay results.

•INTRODUCTION

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This short report summarises geological observations, interpretations, conclusions and recommendations stemming from a one-day inspection of the Appaloosa sector of the Talapoosa gold-silver district, Nevada on behalf of Christopher James Gold Corporation. Max Baker and Brian May conducted the visit and contributed to wide-ranging discussions.

•GEOLOGICAL OBSERVATIONS

Preamble

The Talapoosa district is underlain by the Kate Peak Formation, a sequence of volcanic and epiclastic rocks of mid-Miocene age. The sequence is dominated by andesitic to dacitic flows, breccias and tuffs, but also includes volcanic domes and shallowly emplaced minor intrusions.

The Bear Creek and nearby gold-silver zones, 2-3 km southeast of the Appaloosa sector and the historic focus of the Talapoosa district, are hosted by hydrothermal breccias, quartz veins and stockworks and their immediate dacitic volcanic host rocks, which are assigned to the lower member of the Kate Peak Formation.

Appaloosa breccias

The Appaloosa sector is dominated by a series of prominent silicified breccias, most of which have a clear east-west alignment. The largest breccia outcrops approximate 400 m in length and attain widths of 100-200 m.

The breccias appear to cut a well-bedded sequence of epiclastic rocks, ranging from siltstone to grit, which constitute the dominant clast lithologies within the breccias. In a couple of places, steep contact relationships between the breccias and epiclastics are apparent (Fig. 1). Large, variably rotated blocks of the epiclastic sequence, up to several metres in size, occur within the breccias, particularly near their margins (Fig. 1); however, most clasts are 1-20 cm across. Although there are clast-supported breccia zones, most of the breccias are supported by a matrix of pulverised epiclastic rock.

Most of the observed breccias are chaotic and non-bedded but, locally, crudely bedded zones are also observed. This bedded material appears less consolidated than the epiclastic host-rock sequence. The multiple brecciation history is underscored by the presence of steeply inclined breccia dykes, typically displaying finer grain sizes than the host breccias.

The breccias are everywhere pervasively silicified, but it remains uncertain what proportion of the silicification affected the epiclastic rocks prior to brecciation vis-a-vis the proportion introduced during and after the brecciation process. Dark-green smectite impregnates some of the silicified rocks. Nevertheless, it is clear that a variety of prominent siliceous clasts, some several metres in size, were incorporated into the breccias. These comprise grey-coloured opalite, bedded siliceous sinter and chalcedonic vein material. The opalite and sinter appear to have been derived from pre-existing horizons within the epiclastic sequence, whereas the vein chalcedony was derived from veins emplaced relatively early in the brecciation process. Locally, coherent veins are observed to become disaggregated to form closely spaced vein

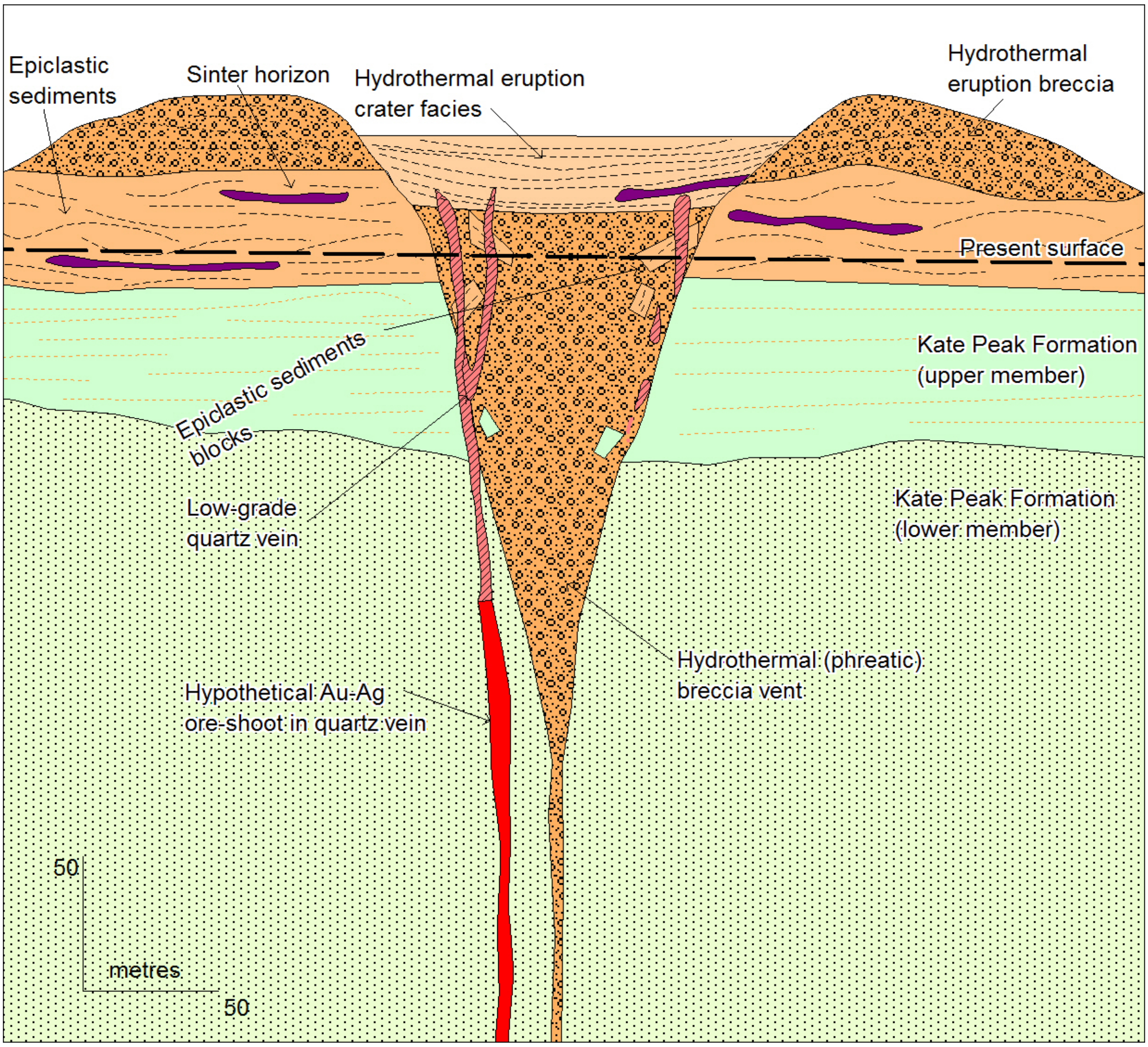

Fig. 1 Reconstruction of Appaloosa breccias

clasts within the breccias. One of the larger sinter blocks is interbedded with mudstone displaying desiccation cracks

Some of the clasts in fine-grained breccia are highly pyritic, which gives rise to gossanous material during subsequent supergene sulphide oxidation. Small, translucent crystals within some of the gossanous clasts are suspected to be adularia.

Chalcedony veins

Steeply dipping veins, typically 5-20 cm wide but attaining >1 m in places, cut the breccia and immediately surrounding epiclastic sequence (Fig. 1). Crustiform banding is commonplace. The veins are dominated by fine-grained chalcedony, although narrow bands of both chalcedony displaying carbonate-replacement texture and crystalline quartz are also present. The chalcedony is typically pyrite poor. The wider veins follow either east-west or northwest-southeast directions, and are continuous over strike lengths of several tens of metres.

Some of the smaller veins and veinlets give the impression of having been emplaced either into poorly consolidated breccia or during brecciation, judging by their strike impersistence and irregular, locally sinuous form. The disaggregated vein material noted above may be an extreme case of vein emplacement into poorly lithified breccia. Locally, thin veins were observed to be paralleled by fine-grained breccia dykelets.

Previous rock-chip sampling of the breccias has shown locally that the chalcedonic vein material contains 100-300 ppb Au, accompanied by 200-400 ppm As, 20-50 ppm Sb, 10-20 ppm Mo, several ppm Hg and several hundred ppm Ba.

GEOLOGICAL INTERPRETATION

Brecciation

The breccias are confirmed as a series of hydrothermal (phreatic) vents generated by release of overpressured hydrothermal fluids that accumulated at relatively shallow depths (Fig. 1). Self-sealing caused by silicification may have given rise to the fluid accumulation. It is considered likely that the widely observed vent facies was overlain by a crater facies in which bedding is better developed (Fig. 1). Sunken remnants of carter facies material were noted in one of the breccia bodies, as noted above. The vents seem likely to have been surmounted by aprons of hydrothermal eruption breccia, which appear to have been lost to erosion (Fig. 1).

The epiclastic host rocks probably accumulated in a lacustrine environment, parts of which were subjected to hot-spring activity. The epiclastic material underwent localised silicification, including transformation to opalite in places. Sinter also seems likely to have formed in places in this lacustrine setting. Once silicification was sufficiently intense, it caused fluid accumulation, followed by eventual release as a result of overpressuring and consequent brecciation. The silicification likely continued during and immediately after the recurrent brecciation events.

•If this interpretation of events in the Appaloosa sector is correct, it implies that the epiclastic sedimentation and subsequent phreatic brecciation were intimately linked phenomena rather than being separate entities. Thus, any attempt to slot the breccias into the district-wide stratigraphy as either fossil talus or debris-flow material, as attempted by previous workers, is doomed to failure. All that can be reliably stated is that the tuffaceous sediments of the post-mineralization Pliocene Coal Valley Formation overlie them.

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•**Vein formation**

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•As brecciation waned, the breccias and their immediate epiclastic host rocks were cut by chalcedony veins and veinlets. The most prominent vein direction is east-west, parallel to the elongation of the breccias themselves, implying that both features were controlled by the same predominant fault direction. The widest veins are suspected to be localised by the principal faults, which acted as conduits for the greatest volumes of ascendant hydrothermal fluid.

The crustiform texture and sulphide- and base metal-deficient character of the veins suggests that they are of low-sulphidation epithermal type. The predominance of chalcedony in the veins further suggests that their shallow, near-surface levels are preserved, an interpretation supported by the predominance of smectite, a low-temperature and, hence, potentially near-surface alteration product.

Such chalcedonic veins, containing only low-order precious-metal values but anomalously high toxic-element tenors are commonly transitional downwards to quartz veins hosting precious-metal ore shoots (Fig. 1). The observed depth of this transition beneath a paleosurface varies from a few tens of metres to 200-300 m. If the main Bear Creek mineralized zone at Talapoosa is the style of mineralization that can be anticipated at depth beneath the breccias, the latter depth figure appears to be the more appropriate, given that the present surface at Appaloosa is probably <100 m beneath the original paleosurface.

CONCLUSIONS

The Appaloosa sector at Talapoosa is believed to have formed where hydrothermal fluids debouched through east-west faults into a shallow, lacustrine environment. Silicification, including opalite formation, led to localised self sealing and consequent phreatic brecciation, which produced steep, upward-flared vents and subaerial aprons of hydrothermal eruption breccia. Most of the subaerial accumulations, including hydrothermal vent facies, have been eroded.

During the waning stages of brecciation, continued fluid ascent led to the formation of steep, low-sulphidation epithermal veins. Those exposed at Appaloosa are dominated by low-temperature chalcedony containing only low-order gold and silver values. Nevertheless, by analogy with comparable low-sulphidation systems in Nevada and elsewhere (e.g. Midas), such shallow-level veins may be underlain at depth by precious-metal ore shoots at least 200 m in vertical extent. Bonanza-grade shoots are a distinct possibility in such settings. Should the deeper feeder zone contain several master veins along with associated stockworks, as defined in the Bear Creek zone at Talapoosa, larger tonnages of low-grade mineralization could exist besides the higher-grade, vein-hosted shoots. The mineralization of both styles is likely to be non-oxidised given its appreciable depth beneath the present surface.

RECOMMENDATIONS

On the basis of the evidence available in the Appaloosa sector, it is eminently reasonable to infer that the hydrothermal breccia vents and contained low-sulphidation epithermal veins are underlain at depth by potentially ore-grade gold and silver mineralization. This could be of high-grade vein and/or bulk-tonnage styles.

Drill testing of this in-depth potential is strongly endorsed. Selection of initial drill sites should be straightforward, with the widest and highest-grade outcropping veins being targeted. In view of the geological uncertainties involved, core drilling is recommended. Since it will be impossible to fence drill the rugged breccia outcrops, scissor holes on both sides of them would seem to offer the best approach. The initial holes need to be appropriately positioned to intersect the inferred vein feeder zone at a vertical depth of approximately 150 m. This depth may have to be modified if future drilling is contemplated, taking into account the initial geological and assay results.

Reno, NV
30th July 2010 — Richard H. Sillitoe