

Annual Report

Period 29th April 2013 to 30th April 2014

EL 25399 Compass Creek

EL 25436 Mavis Project

EL 29068 New Waterdrum

Appendix 1

**Potential Buried Major Mineral System with Gold,
&/or Tin, Copper & Silver**

**Review of Veins, Breccias & Alteration in the
“Mountain & Mavis Areas”**

Compass Creek Project

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Potential Buried Major Mineral System with Gold, Tin, Copper & Silver

Review of Veins, Breccias & Alteration in the “Mountain & Mavis Areas”

The following is a review of the types of veins and breccias present in the “Mountain and Mavis Areas” of the Compass Creek project, and the related alteration halos.

The “Mountain Area” is considered the most favourable for the discovery of a large buried gold deposit. This area of hills and ridges forms an unusually high terrane that is over 100m higher than the surrounding plains. The reason for this higher terrane is the presence of several quartz-sulphide veins and two breccia pipes that have strong alteration halos. The alteration has essentially “welded” the strongly foliated (cleaved) Burrell Creek Formation sediments and created solid blocky rock that is more resistant to erosion. Most of the veins are narrow (5-30cm) but have broad alteration halos in the tens of metres, and some zones show alteration over 150m wide and up to 1000m long.



Figure 1: Satellite (Spot) Imagery showing the elevated “Mountain & Mavis Area” in the Compass Creek Project, plus the location of nearby gold & tin mines.

The collection of 54 rock chip samples from veins and breccia pipes in the Mountain Area returned averages of: 2,623 ppm As, 1,558 ppm Pb, 117 ppm Sb, 97 ppm Bi, 551 ppm Sn, 234 ppm Cu, 1.8 ppm Ag & 0.03 ppm Au. This is clearly a Pb-As province with 42 of 54 samples carrying over 200 ppm Pb, including 27 samples over 500 ppm Pb, of which 14 were over 1,000 ppm Pb. All of the 54 samples carry over 300 ppm As, and 45 of the 54 samples (83%) are over 1,000 ppm As. The presence of high As, Pb, Sb, Bi & Sn is indicative of a significant mineralising system at depth, potentially containing economic gold and/or tin. This zone of veining, alteration and mineralisation occurs in a NNW trending zone at least 3 km long and 1 km wide.

Two IP/resistivity lines 350m apart were run over the northern part of the Mountain Area. The results show at least two substantial chargeable zones associated with strong conductors, traceable over 350m of strike (and open in both directions). These chargeable zones coincide with a mineralised breccia pipe (Jason's Peak) and a 50m wide vein/fault zone. A third IP/resistivity line over a breccia pipe (Kamas Cauldron) detected the pipe to depth, and recognised deeper weathering within the pipe. In addition, the airborne EM anomaly noted to the south at Mavis and the Magnetic anomaly, is projected to plunge north in the core of the anticline, under the Mavis and Mountain Areas. In essence the combined Mavis and Mountain Areas contains a large NNW trending zone of alteration and veining with associated breccia pipes, highly anomalous vein samples, and the presence of strong chargeable bodies (conductors) at depth.

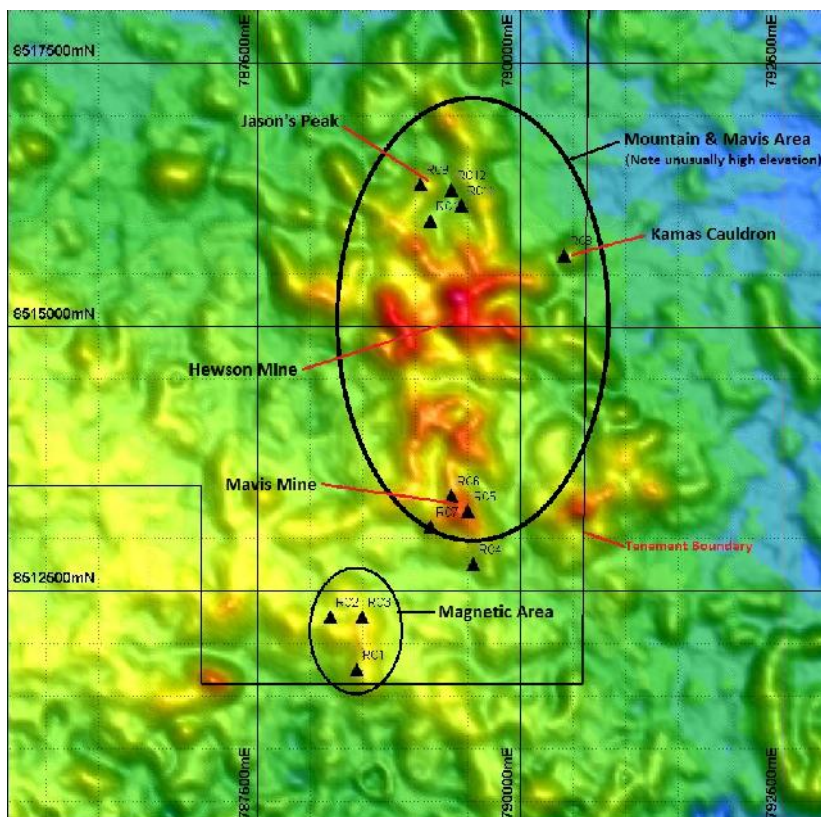


Figure 2: Digital Elevation Model (DEM) showing the higher terrane of the “Mountain & Mavis Areas”; plus the location of the main vein and breccia prospects, and the proposed RC drill sites.

Alteration

Hydrothermal alteration and metasomatism (hornfels) associated with veins and breccias has greatly affected the strongly cleaved Burrell Creek Formation. The cleaved metasediments have been totally recrystallized and have lost the metamorphic cleavage. The following photos show the original meta-cleaved (foliated) metasediments and the “blocky” altered (metasomatised) rock from the halo of veins and breccia pipes.



Figure 3: Strong metamorphic cleavage of the Burrell Creek Formation (meta-wackes).



Figure 4: Close-up of the strong cleavage of the Burrell Creek Formation meta-sediments.



Figure 5: Alteration contact on the SW side of Kamas Cauldron hill. Here strongly cleaved rock outcrops on the lower slope (right side of photo), while blocky altered rock from the rim (left side) is migrating down slope.



Figure 6: Strongly altered rim on west side of Kamas Cauldron peak (flat top hill). The rim is solid altered rock, whereas brecciated metasediment with gossanous-quartz matrix occupies the centre of the hill.



Figure 7: Kamas Cauldron breccia pipe (NE side), showing the solid altered rim of metasediment (left) with gossanous breccia throughout the interior of the hill. Sample sites CC-007 & CC-008 at about 790499E / 8515693N.



Figure 8: Kamas Cauldron breccia sample CC-007 with 0.73% As, 0.55% Sn, 103 ppm Pb, 35 ppm Bi, 68 ppm Sb & 1.1 g/t Ag (low Cu & Zn, and trace only gold).

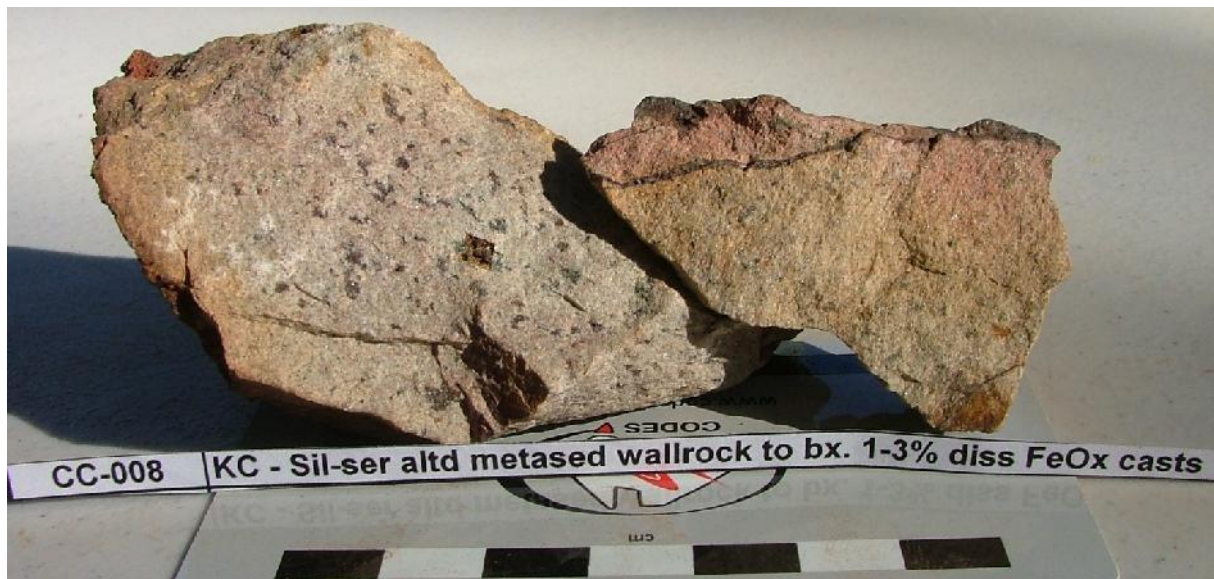


Figure 9: Sample CC-008 from the rim of Kamas Cauldron, consisting of silicified and sericitised (& chloritized?) metasediment (greywacke?). The alteration has destroyed (masked) the metamorphic foliation. About 1-3% disseminated iron oxide occurs in fine to coarse grained cubic to rounded casts (0.1-0.5cm) after porphyroblasts of mafic minerals (replaced by pyrite and chlorite etc.). This rock forms the outer rim around the top of the hill and is the wall rock to the breccia. Despite the un-mineralised appearance it still contained 490 ppm As and 352 ppm Sn.



Figure 10: Sample CC-006 of altered metasediment breccia fragments in the centre of Kamas Cauldron. The altered metasediment (greywacke?) is now a medium-grained sericite-quartz rock with iron staining on fractures and occasional iron oxide boxworks along fractures.

Breccias & Veins in the Mountain & Mavis Areas

Breccias and breccia veins are noted at Kamas Cauldron, Jason's Peak, the Hewson mine and the Mavis mine. All these localities show a matrix of gossanous material (ex-sulphides) with quartz veining surrounding angular fragments of altered metasediment. In addition there are several narrow (10-30 cm) NNW trending gossan-quartz veins that occur throughout the Mountain and Mavis Area; with some veins having extensive strike extent and broad alteration halos.

Kamas Cauldron Breccia Pipe

The Kamas Cauldron breccia pipe is located on the eastern base of the Mountain Area and forms a circular flat top hill about 80m in diameter (at the peak). The hill rises about 30m above the level of the plain. The breccia consists of variably broken and altered sediment fragments with quartz and sulphides (gossan) forming the breccia matrix and veins and disseminated sulphides (casts) within the fragments. The original sulphide content appears to vary from 1-10%, but is locally higher. The top of the hill is surrounded by a rim of massive metasomatic altered sediment with coarse porphyroblasts and occasional thin quartz-sulphide veinlets. This altered wall rock forms a slightly raised rim around the breccia contact, and would have funnelled the abundant monsoon rains down through the more porous breccia. This funnelling of water through the breccia would likely cause excessive leaching of most metals due to the high acid environment. Hence the surface assays are problematic and the possibility of a deep and rich supergene zone is likely.

The surface geochemistry from the seven rock chip samples shows highly anomalous tin, arsenic, lead and antimony, with weakly anomalous silver and bismuth. Only copper, zinc and gold are at relatively low levels. It is possible that acid leaching could have played a part in removing these metals.

The one IP/Resistivity line over Kamas Cauldron defined a weak chargeability anomaly. The weakness of the chargeability is probably due to the small size of the breccia pipe compared to the huge volume of un-mineralised surrounding rock. The comment by our consultant geophysicist (David McInnes) is very encouraging.

A subtle chargeable source with depth extent directly associated with the mapped Kamas Cauldron. The chargeable body correlates with a deepening of the weathering profile (as indicated by the resistivity model) which also has a slight increase in conductive (increased clay/water?).



Figure 10: View of Kamas Cauldron looking approximately east from the eastern-most high ridge of the “Mountain Area”. Note the relatively flat to concave hill-top with a competent rim of altered metasediment that would likely channel rain water down the gossan-quartz breccia. The only low point is seen on the east side of the hill where iron staining on rock float indicates the location of run-off from the gossan breccia.

It is quite likely that the gossanous breccia pipe has been deeply leached by acid waters, and there could be a significant enrichment zone at the base of oxidation. The IP/resistivity line over Kamas Cauldron confirmed the chargeability of the pipe at depth, and also the low resistivity due to deep weathering and clay formation (probably related to acid leaching).



Figure 11: Gossan-breccia on east side of Kamas Cauldron. Note the low point to the flat topped hill (left side of photo) which is the only location rain water can flow off the hill.



Figure 12: Kamas Cauldron: Sub-outcrop of gossanous breccia (to left) and outcrop of silicic/phyllitic altered wallrock (rim) on right. South side of hill, and site of sample CC-009.



Figure 13: Close-up view of sample site CC-009 of Gossan-Quartz matrix in breccia, near south side of Kamas Cauldron. Sampled returned 0.11% Pb, 0.13% As, 215 ppm Sn, 1.8 ppm Ag & 16 ppm Sb (with weak values for Cu, Zn, Bi & Au).



Figure 14: Example chips of Kamas Cauldron breccia sample CC-009.

Jason's Peak

Jason's Peak is a "knob" or small hill consisting of strongly altered sediments with at least six small breccia dykes and pipes cutting through the altered rock. The altered hill is about 75m long and up to 35m wide, and the breccia bodies vary from 0.5m to 6m wide and occur at both steep and shallow angles. The eight rock chip samples collected from Jason's Peak returned highly anomalous lead, arsenic, tin, antimony, bismuth and silver, with weakly anomalous gold and low copper and zinc. The average assays for the eight samples are: 0.53% Pb, 0.36% As, 0.12% Sn, 582 ppm Sb, 259 ppm Bi, 6.2 ppm Ag, 0.07 ppm Au, 81 ppm Zn & 67 ppm Cu. It is possible that copper and zinc have been leached from the surface environment by acid ground water due to the high pyrite content.

About 200m east of Jason's Peak is a zone of N-S faulting and veining that is exposed over 50m wide and is traceable for over 400m to the south, and about 150m to the north. This zone hosts occasional narrow quartz veins with gossan material. Rock chip assays from this zone show strongly anomalous arsenic and lead, with moderate to weakly anomalous copper, antimony, bismuth, tin, silver and gold; with only zinc being low. The averages from the four rock chip samples are as follows: 0.37% As, 433 ppm Pb, 542 ppm Cu, 53 ppm Bi, 25 ppm Sb, 36 ppm Sn, 70 ppm Zn, <0.5 ppm Ag, & 0.04 ppm Au.

The IP/Resistivity lines over Jason's Peak and the line 350m to the south, both show significant chargeability anomalies. The following is an abbreviated summary from David McInnes (Geophysical Consultant).

Beneath the mapped location of Jason's Peak breccia pipe there is a substantial chargeable body associated with a strong conductor. The IP traverse directly to the south of the Jason's Peak breccia (350m) displays a more diffuse chargeable conductor, indicating that the source may have deepened, however more likely it suggests that the source of the anomaly is off line.

Directly to the east of the chargeable conductor associated with Jason's Peak breccia, there is another strong chargeable conductor. The body occurs directly below the mapped NNW (or N-S) striking alteration/quartz vein zone. The depth to the top of this body is deeper than that of the Jason's Peak source. The IP traverse directly to the south (350m) displays the chargeable conductor as a "diffuse/nebulous" deep feature indicating that the source is off-line. Both this chargeable conductor and the one associated with the Jason's Peak breccia are open to the north.

Hence the Jason's Peak area contains a breccia pipe and a broad shear/vein zone, both of which are geochemically anomalous and contain significant chargeable conductors at depth.

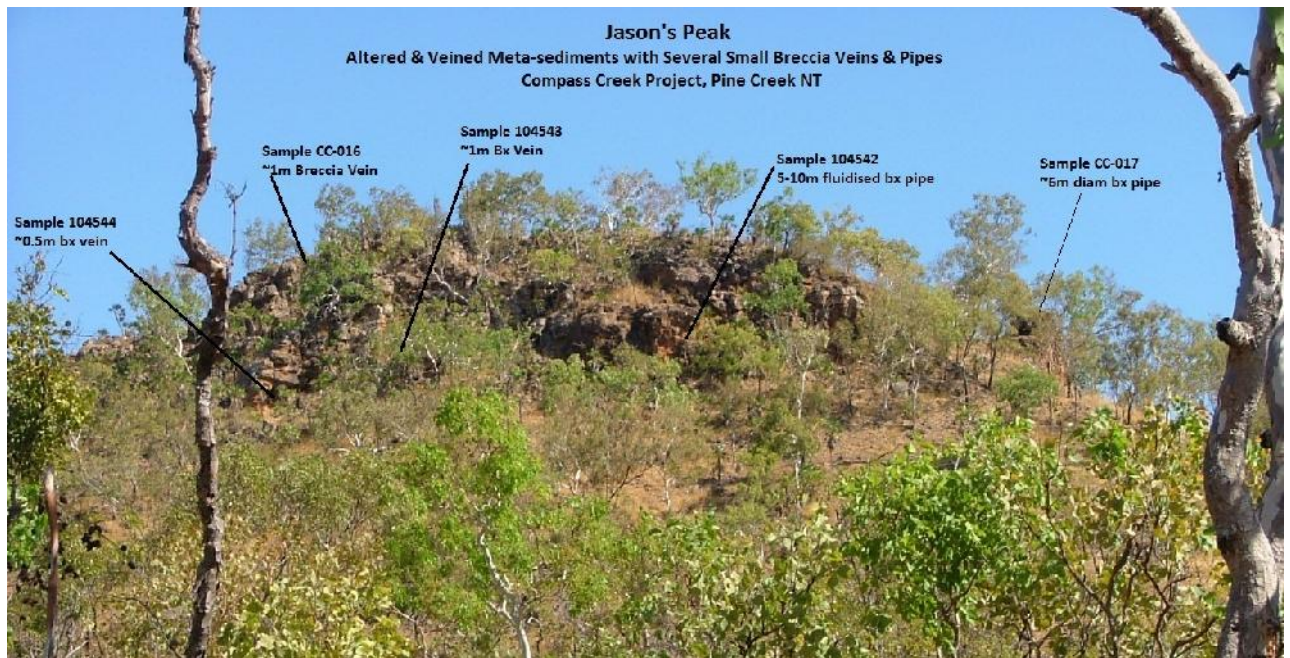


Figure 15: Jason's Peak, looking southward at the northern face of Jason's Peak. Showing location of samples noted in the table below.

Table 1: Significant Rock Assays from Jason's Peak

Sample Number	Au ppm	Ag ppm	Cu ppm	Pb ppm	Zn ppm	As ppm	Bi ppm	Sb ppm	Sn ppm
CC-016	0.06	4.7	20	1.64%	39	1430	8	288	7290
CC-017	0.19	1.2	74	1630	77	4650	72	370	95
104542	0.09	26.6	45	5500	13	4650	1480	2370	211
104543	0.06	11.5	100	1.12%	336	5030	261	275	661
104544	0.04	2.2	126	5660	76	2960	167	782	394



Figure 16: Looking west-north-westerly to the east side of Jason's Peak. The E-W IP/resistivity line over this site, showed strong chargeability and low resistivity to depth.



Figure 17: Breccia vein (~1m wide) on eastern end of Jason's Peak. The vein trends 015° to MN, in vuggy porous altered metasediment with common quartz veins and yellow-brown limonite. This is the site of rock sample CC-016 (see Table 1 above).



Figure 18: Example chips of the rock sample CC-016 (see above) which assayed: 1.64% Pb, 0.73% Sn, 0.14% As, 288 ppm Sb, 4.7 ppm Ag & 0.06 ppm Au (with weak Cu, Zn & Bi).



Figure 19: Breccia pipe about 6m in diameter, located on the SW side of Jason's Peak (possible intersection of two fault planes). Note later quartz veins cut the breccia, thereby indicating multiple mineralising events. Sample site of CC-017 (see table above).



Figure 20: Example chips from sample CC-017 from the breccia pipe on SW side of Jason's Peak (see above). The sample returned: 0.47% As, 0.16% Pb, 370 ppm Sb, 72 ppm Bi, 95 ppm Sn, 1.2 ppm Ag & 0.19 ppm Au (with low Cu & Zn).



Figure 21: Example chips from sample 104542 that came from a 5-10m wide fluidised breccia pipe on Jason's Peak. The breccia is strongly altered and cut by later quartz veining. The sample returned assays of 0.55% Pb, 0.47% As, 0.24% Sb, 0.15% Bi, 211 ppm Sn, 26.6 ppm Ag, & 0.09 ppm Au (with low Cu & Zn). Given the high lead assay, it is probable the abundant yellow-brown "limonite" is partly plumbo-jarosite. There may also be some scorodite (arsenic oxide) present.



Figure 22: Example of sample 104543 from a ~1m wide brecciated quartz vein (fault) at Jason's Peak. The vein contains abundant FeOx boxworks & sponge filling voids in the brecciated quartz vein. The sample returned assays of: 1.12% Pb, 0.50% As, 661 ppm Sn, 275 ppm Sb, 261 ppm Bi, 336 ppm Zn, 100 ppm Cu, 11.5 ppm Ag & 0.06 ppm Au. This is a very high lead, arsenic, antimony, bismuth & tin system.



Figure 23: Example of sample 104544 from a ~0.5m brecciated and quartz veined fault in a small shaft on the north face of Jason's Peak. There are abundant disseminated boxworks (ex-pyrite?), massive gossan and irregular quartz veins. The assay results from this sample were: 0.57% Pb, 0.30% As, 782 ppm Sb, 167 ppm Bi, 394 ppm Sn, 2.2 ppm Ag, 0.04 ppm Au, 126 ppm Cu & 76 ppm Zn.



Figure 24: View of large (un-named) hill NNE of Jason's Peak shows moderate to locally strong alteration with local quartz veining and sulphide mineralisation (gossan).



Figure 25: Example chips from sample 104493 of float pieces near the top of hill. The sample shows strong metasomatic (hornfels) alteration with abundant porphyryoblasts (ex-mafics?), along with siliceous breccia, quartz veining and possible sulphide boxworks. The assays show anomalous results of: 539 ppm Pb, 346 ppm As & 194 ppm Sn (other elements low).



Figure 26: Example of chips from sample 645943 of a ~1m wide strongly altered vein zone on the lower north-east slope of the large altered hill north of Jason's Peak. This sample returned: 0.26% Sn, 477 ppm As, 309 ppm Cu, 207 ppm Pb, 43 ppm Bi, 16 ppm Sb, & 0.03 ppm Au (while Ag & Zn were relatively low). This anomalous geochemistry and strong alteration around this hill, extends the mineralised zone at least 700m north of Jason's Peak.

Mavis Tin-Gold Vein & Southern Auriferous Vein & Alteration Zone

The Mavis area consists of the old Mavis tin/gold mine that worked a bedding parallel quartz-sulphide vein of 10 to 50 cm width located in the core of the north plunging anticline. A few hundred metres south of the mine there is a broad area (250m x 50m) of hydrothermal alteration with stringer quartz veining and 1-5% disseminated and veinlet sulphide casts apparently in a bedded unit in the east limb of the anticline. Rock chip samples from this mineralised zone are commonly anomalous for gold (0.2 – 1.25 g/t Au) as well as silver, copper, arsenic, bismuth, & tin (interestingly, lead is relatively low).

Coincident with the surface mineralisation and the core of the anticline is the presence of a significant deep airborne electro-magnetic (AEM) conductor on the 150m to 200m depth slice. This AEM anomaly also extends at least another 500m to the north. Likewise the two IP/Resistivity lines in this area show a chargeability response that is also coincident with the AEM and geochemical anomaly.

A third IP/Resistivity line to the south of Mavis (and north of the Magnetic Anomaly) also shows two chargeability anomalies. One appears to be the northward continuation of the alteration and mineralisation of the Magnetic Anomaly; while the second (eastern) chargeability anomaly shows no surface expression (i.e. hidden anomaly) and the source is unknown. The position of this chargeability anomaly indicates that it may be related to a SE extension of the Mavis South sulphide mineralisation, extending down-plunge in the east limb of the anticline. A magnetic susceptibility anomaly is also recorded with the hidden eastern chargeability anomaly.



Figure 27: Small costean along shallow dipping Upper Mavis gossan-quartz vein.



Figure 28: Breccia vein material (~0.5-1.0m wide) at Upper Mavis workings. Bedding plane vein striking NE and dipping 45° to NW, near apex of NNE plunging anticline. A sample of this material (CC-002) returned assays of: 673 ppm Cu, 444 ppm As, 235 ppm Bi, 124 ppm Pb, 15 ppm Sb, & 0.07 ppm Au (with low values for Ag, Zn & Sn).



Figure 29: Breccia-Gossan-Quartz vein at the Upper Mavis Workings. Same location as Figure 28 above.

Auriferous Alteration & Stringer Vein Zone located about 250m south of Mavis mine.

This 250m by 50m area contains 19 rock chip samples, most of which have anomalous gold values in the range of 0.15 to 1.25 g/t Au, along with anomalous copper in the 100 to 716 ppm Cu range, and arsenic in the 150 to 1800 ppm As range. Bismuth is also anomalous in the 25 to 235 ppm Bi range, and locally anomalous tin to 303 ppm Sn. Strangely lead, zinc, silver and antimony are generally low.



Figure 30: Example chips from sample 104541 located within the centre of the auriferous alteration-vein zone about 200m south of the Mavis mine. The sample is from a 3-4m wide Quartz-Gossan-Vein zone with sub-parallel quartz veins in altered metasediment (Mount Bonnie Formation?) with FeOx as disseminations, patches and filling voids. Analysis returned a high gold value of 1.25 g/t Au, along with 716 ppm As, 38 ppm Bi, & 138 ppm Cu. Results for Ag, Pb, Zn, Sb & Sn were all low.



Figure 31: Example chips of sample 645911 located within the altered zone south of Mavis. This float (sub-outcrop) sample of altered and veined metasediment returned: 0.80 g/t Au, 1120 ppm As, 105 ppm Bi, 254 ppm Cu & 85 ppm Pb, (with low Ag, Zn, Sb & Sn).

Hewson Breccia-Gossan-Quartz Vein

The Hewson Tin Mine was active in the 1960s and worked a large gossan vein-breccia pod exposed on the top of a ridge. Both the vein and ridge trend north-west over a strike of about 350m, but the large vein pod that was mined was probably only 30 to 50m in length and up to 2-3m wide. The majority of the vein is only 0.25 to 1.0m wide, and in places appears to be off-set by faulting. As elsewhere in the Mountain Area, there is substantial alteration peripheral to the vein, and from the Hewson vein the alteration extends eastward where it merges with other smaller vein-alteration zones. These merged alteration zones make up the broad high ground in the centre of the Mountain Area.

Six rock chip samples were collected from the Hewson Vein and two ore stock piles. The assays from the six samples average: 0.07 ppm Au, 1.7 ppm Ag, 145 ppm Cu, 473 ppm Pb, 81 ppm Zn, 0.18% As, 18 ppm Bi, 69 ppm Sb, & 0.13% Sn. The tin seems low, given this was a tin mine. The highs for all these elements were: 0.20 ppm Au, 2.3 ppm Ag, 266 ppm Cu, 729 ppm Pb, 140 ppm Zn, 0.31% As, 41 ppm Bi, 115 ppm Sb, & 0.53% Sn.



Figure 32: Hewson Pit on top of ridge, looking SE along the line of the breccia vein. The sample 645902 was collected from the NE (left) side of the pit and consisted of stringer veins in the wall rock. The main vein is not exposed due to cave and recent cover in the floor of the pit. The sample 645902 returned: 0.53% Sn, 0.11% As, 479 ppm Pb, 33 ppm Sb, 2.3 ppm Ag, & 0.03 ppm Au (with low Cu, Zn & Bi).



Figure 33: Example chips of sample 645902 (see description & assays above).



Figure 34: Hewson “ore sorting stockpile” next to pit. The stockpile contains abundant large blocks of siliceous breccia with quartz vein and metasediment fragments, along with gossan infill and occasional sulphide boxworks. Sample 645904 returned: 0.18% Sn, 0.18% As, 634 ppm Pb, 115 ppm Sb, 25 ppm Bi, 132 ppm Cu, 2.2 ppm Ag, & 0.06 ppm Au (with low Zn).



Figure 35: Example chips from sample 645904 (see description & assays above).



Figure 36: Hewson vein, about 100m SE from the pit. Here the breccia vein is ~1m wide and consists of altered and brecciated metasediment and quartz fragments, with quartz veining and FeOx as fracture coating and infill (occasional boxworks). The sample from this site (645905) returned: 0.14% As, 266 ppm Cu, 211 ppm Pb, 32 ppm Sb, 84 ppm Sn, 140 ppm Zn, 2.1 ppm Ag, & 0.09 ppm Au (and only 3 ppm Bi).



Figure 37: Example chips from sample 645905 (see description & assays above).



Figure 38: Hewson “stockpile” at base of hills, about 750m SW of the mine. The stockpile contains abundant large blocks of siliceous breccia with quartz and metasediment fragments, quartz veining and gossan infill with sulphide boxworks. Sample 645901 returned: 0.16% As, 706 ppm Pb, 225 ppm Sn, 103 ppm Sb, 24 ppm Bi, 2.1 ppm Ag, & 0.02 ppm Au (with relatively low Cu & Zn values).



Figure 39: Example chips from sample 645901 (see description & assays above).

Narrow Quartz-Gossan Veins with Strong Alteration Halos Central Mountain Area.

In the central elevated part of the “Mountain Area” there are several NNW trending narrow quartz-gossan veins about 10-30 cm wide and vertical. These veins have unusually broad alteration halos that locally merge to form wide alteration zones. It is from this area that several veined and altered ridges extend out from to the NNW and SSE. It is in this general area that some of the highest copper and gold values were returned. From about 15 samples in this central mountain area, five returned copper values from 749 ppm to 1640 ppm Cu, and six returned gold values between 0.13 to 0.29 ppm Au. It is interesting that the average copper and gold values from the ~15 samples in this central mountain area are much higher than the averages from the breccia bodies or major breccia veins of Kamas Cauldron, Jason’s Peak or Hewson (but not Mavis). This raises the question of either multiple mineralising phases or zoning within the hydrothermal system (or both).



Figure 40: Broad area of alteration occurring where several high ridges merge to form a high plateau. This location has a 10-20cm vuggy quartz-gossan breccia vein “zone” within a wide area of moderately altered metasediment with large porphyroblasts. The assay results from this sample were: 0.23% As, 547 ppm Pb, 283 ppm Cu, 92 ppm Bi, 2.3 ppm Ag, & 0.04 ppm Au (with low Sn, Sb & Zn).



Figure 41: Example chips from sample 645945 (see description & assays above).



Figure 42: Narrow gossan-quartz veining in blocky altered metasediment (Sample 645925). The sample is anomalous in As, Pb, Sb & Cu, with 0.12% As, 658 ppm Pb, 83 ppm Sb, 237 ppm Cu, with weak results of 18 ppm Bi, 41 ppm Sn, 214 ppm Zn, 1.0 ppm Ag & 0.02 ppm Au.



Figure 43: Same vein as Figure 42 above, showing weakly altered cleaved rock (right side) outward from the strongly altered blocky material (left side of photo).



Figure 44: Sample 645925 (789822E / 8515454N – Figure above). Assayed 0.12% As, 658 ppm Pb, 237 ppm Cu, 83 ppm Sb, 18 ppm Bi & 1.0 ppm Ag (with weak Au, Sn & Zn).