

**SUMMARY REPORT  
SILVER CLOUD DRILLING  
TECK RESOURCES INC.  
DRILL HOLES SCT-1 TO SCT-10**

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## SUMMARY

The Silver Cloud project is host to a low-sulfidation, selenium rich gold bearing hydrothermal system with striking similarities to the world class 5.2M oz Hishikari gold deposits in Japan. The property is located in the Ivanhoe mining district on the east side of the northern Nevada rift, within 25 km of the 2.4M oz. Midas deposit. Drilling by Teck has discovered strong gold mineralization which occurs at depth in the Silver Cloud mine area within Miocene rhyolite and Ordovician quartzite over a strike length of at least 2000 feet. (650m).

Teck acquired the Silver Cloud property in 1998 and conducted three drilling programs from 1999 to 2001. A first phase, five hole rotary drilling program totaling 4935' (1480m) was carried out in summer 1999 to test N-S trending structures inferred from surface mapping, a CSAMT survey and drilling data obtained from previous operators. Interpretation of alteration assemblages in drill cuttings with PIMA, x-ray diffraction and petrographic studies indicated that the holes were mostly within the vapor dominated alteration zone, and more prospective, higher temperature illitic assemblage occurred at the bottom of hole SCT-1.

A second phase, two rotary hole program totaling 3470' (1041m) was conducted in summer 2000 to test the deeper portions of the system. Hole SCT-6 was drilled in the main Silver Cloud mine area and encountered thick anomalous gold zones with several multigram intercepts at depths below 900' (300m) in Tertiary rhyolite and tuff. The higher gold values were associated with the alteration phases of Buddingtonite (NH<sub>4</sub> feldspar) -kaolinite-NH<sub>4</sub> illite alteration. The best intercept of 157 g/t Au over 5' (1.5m) occurred within a clay gouge zone containing fragments of white granular quartz. Hole SCT-7 was drilled 1700' (550m) south of the mine and encountered thick zones of strongly anomalous gold with a high intercept of 2.5 g/t Au over 5' (1.5m). Ordovician Valmy quartzite with weakly anomalous gold associated with quartz+adularia veining was encountered at depths below 1500' (460m) in both holes.

A three hole combined rotary/core drilling program totaling 4930' (1502m) was conducted in summer, 2001, designed to twin the high grade intercept in hole SCT-6, and test the inferred strike extensions to the north and south .

Holes SCT-8 and SCT-9 encountered broad zones of anomalous Au and small banded quartz-marcasite veins with up to 7.6 g/t over 2.5'(.8m). Vein textures and the presence of marcasite indicate a low temperature and shallow level of emplacement .

Hole SCT-10, drilled in the Silver Cloud mine pit encountered 80' @ 210 ppb. More significantly, lamellar calcite veining occurs in the lower tuff just above the contact with the Valmy quartzite. The alteration in the Valmy then changes to open-space crustiform quartz-adularia. The lamellar calcite and the strong adularia are considered good evidence for boiling and indicate that the main ore-hosting structures will occur just below this level and within the brittle Valmy quartzite. This setting is identical to Hishikari, Japan and the Ivanhoe district, and further deep drilling will likely discover productive veins.

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## **INTRODUCTION**

The Silver Cloud property was leased by Teck from Carl Pescio of Elko in September, 1998. Interest focused on the potential for discovery of gold veins concealed beneath large areas of mercury-bearing hot spring alteration, similar to the Hollister deposit, located 8 km to the northeast. Teck conducted geologic mapping, geophysical surveys and drilled a total of ten holes in three phases from 1999 to 2001. Drilling confirmed the existence of a low sulfidation, selenium rich gold-bearing hydrothermal system. A high grade intercept of 5' @4.6 opt in Miocene rhyolite indicated that potential for economic bonanza grade mineralization exists at depth.

## **LOCATION AND HISTORY**

The Silver Cloud Project is located in Elko County, Nevada, in the southern part of the Ivanhoe Hg-Au mining district and within the eastern portion of the northern Nevada Rift. The 4350 hectare property consists of 544 unpatented lode claims covering the historic Silver Cloud mine, generally in the central and eastern parts of T. 37 N. , R. 47 E., MDBM. (Figure 1.) A good gravel road accesses the property from Battle Mountain, located 60 km to the south, and continues on to the Ivanhoe district 8 km northeast and the Midas district 20 km north.

The Ivanhoe mercury district was discovered in 1915, with intermittent mining up to 1943, and brief periods from 1958 to 1973. Total mercury production was 2180 flasks, the majority from the Silver Cloud mine between 1941 and 1944.

The district was explored for porphyry molybdenum in the 1960's and 1970's and for uranium in 1980.

U.S. Steel identified a gold resource in the middle of the district in the early 1980's. The Hollister gold deposit (18 mt @ 1.2 g/t) was mined by Cornucopia from 1990 to 1992 and produced 100,000 ounces of gold.

Placer-Amex drilled 14 shallow holes in the Silver Cloud Mine area exploring for mercury ( SC-series). Summary logs and assays for six holes were obtained by Teck. Gold up to 10' @ 197 ppb was encountered in hole SC-5.

Newmont entered a joint venture with Touchstone in 1989 and conducted an extensive drilling program in the district. A total of 24 holes were drilled on the property now controlled by Teck, eight of which were drilled in the Silver Cloud Mine area (IV and DDH series) (Figure 2). Drill logs and assays for 22 holes were obtained by Teck along with some selected reports. Two holes in the mine area intersected anomalous gold up to 5' @ 3.1 g/t at shallow depths. Newmont's geologic maps, surface geochemistry and geophysics reports, as well as drill cuttings and core reportedly exist in the files of Great Basin Gold.

GBG started exploring the main district in 1996, focusing on veins in the concealed Valmy basement and Hatter stock, as well as deep Carlin type targets in the Paleozoic rocks. In February 2002 they announced an inferred mineral resource of 719,000 tons @ 1.29 opt Au and 7 opt Ag (1,008,000 oz Au equivalent) hosted in three banded quartz veins in the Valmy Formation.



## **GEOLOGY**

The Silver Cloud property is underlain by a series of volcanic flow and tuff units of Miocene age, unconformably overlying Ordovician quartzites of the Valmy formation. Surface mapping was undertaken by D. Harbaugh in summer, 2001 and the map is available in that report. (Harbaugh, 2001).

Rocks encountered in drilling are discussed from oldest to youngest.

### Valmy Formation

(OV) medium grey, medium to fine-grained quartzite with minor argillite. This unit is exposed in drilling only and occurs at a depth of 1400 to 1500' below surface. It is highly fractured with abundant open space, occasionally filled with vuggy quartz and adularia. Later steeply-dipping, crustiform quartz veins commonly cut the early veins.

### Lower Tuff

(Tlt) light grey – brown fine grained tuff, 75 to 120' thick, rare laminated bedding and common flattened pumice lapilli up to 4 cm., commonly replaced by calcite+illite+pyrite. Texture is very soft and in RC drill cuttings appears like clay gouge. Unconformably overlies the Valmy Fm. Encountered in drill holes only.

### Basalt

(Tb) light grey, very fine to medium grained, 15' to 75' thick. Two different basalts were encountered in drilling. In Hole SCT-7, the basalt is medium-grained with unaltered olivine phenocrysts and occurs within the lower tuff unit. Basalt encountered in holes SCT-8 and SCT-9 occurs within the rhyolite and at the contact with the lower tuff. It is significantly finer-grained, vesicular and strongly pyritized. Possibly of intrusive origin.

### Rhyolite

(Tr) light grey to pinkish grey porphyritic rhyolite, 1150' to 1200' thick, 5–15% sanidine phenocrysts, 1 to 6 mm, rare <1mm quartz phenocrysts. Ranges from stony grey to brown to locally glassy vitrophere, commonly de-vitriphied and spherulitic. Flow banding common, often replaced by irregular quartz-adularia? veinlets. Sanidine phenocrysts variably argillically altered. Rock is fairly competent, even when clay altered, and contains open fractures, especially when silicified.

### Tuff

(Tts) non-welded fine-grained vitric tuff, 100' to 200' thick, trace to 1% quartz phenocrysts <1mm, cream to orange red when fresh, commonly altered to white-pale grey. Irregular opal-chalcedony replacements along beds, likely caused by perched water tables in the vadose zone. Opal is host to cinnabar mineralization.

## **STRUCTURE**

Recent mapping in the Ivanhoe district (Wallace, 2000) shows northwest trending faults just east and south of the Silver Cloud mine. The fault to the east of the mine was the primary target in

Tecks' early phases of drilling. Landsat and areal photo images show a strong north-northwest grain, and (Hudson,1999) mapped several northwest trending silicified zones. D. Harbaugh mapped faults that were primarily northwest trending based on recessive topography and alignment of bedded silica, in addition to the position of clay zones and gold mineralization in drill holes. (Harbaugh, 2001)

## GEOPHYSICS

A CSAMT resistivity survey was undertaken in October, 1998, and expanded in January, 1999. The survey was performed by Zonge Geophysics of Reno and consisted of eight E-W oriented lines from 2400' to 12000' (720m to 3600 m) long, spaced from 500' to 1000' (150m to 300m ) apart. Exposed rhyolite showed high resistivities of up to 1200 ohm-m which extended to the south under alluvium. Overlying tuffs showed low resistivity of less than 10 ohm-m. Originally, the resistive zones were interpreted to be strongly silicified structures, but drilling indicates that the contrasts are probably due to static effects which project the surface geology to depth. Figure 2 shows the plan outline of the highly resistive zones. More detailed data is available in Tecks' Kamloops office.

Other geophysical methods show good potential to aid in exploration. Gravity has been used in the district to estimate depth to basement, as well as structural offsets which may be important as ore conduits. At Ivanhoe, Great Basin Gold has used three dimensional processing of ESCAN geophysical survey data which revealed a distinctive resistivity signature enclosing the vein systems. Gradient-array IP has also been used with some success, although the depths to potential ore at Silver Cloud are somewhat deeper than is thought practical with this method. Another potential method is the use of downhole seismic surveys, presently used in oil exploration. The three holes drilled in 2001 are open as of the date of this writing, and this method could prove useful in delineating subsurface structural zones.

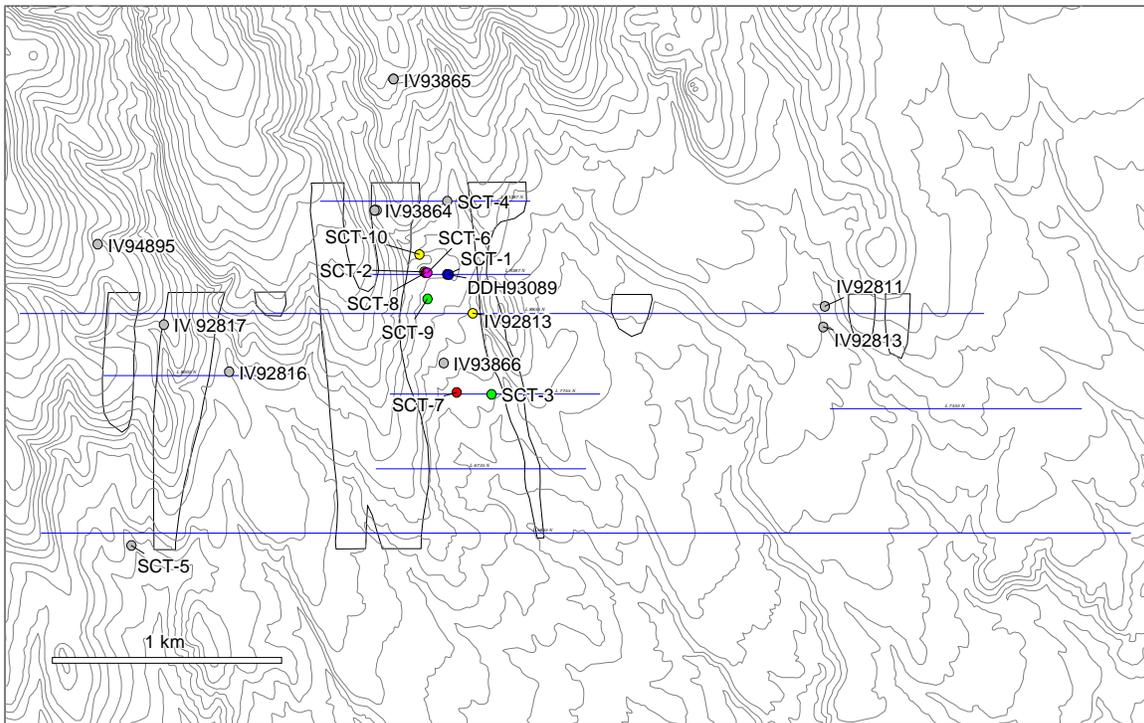


Figure 2. Silver Cloud Drill Hole Locations and CSAMT Resistivity Zones

## **DRILLING**

Three phases of drilling were undertaken during 1999, 2000, and 2001.

Permits were obtained through the Elko district BLM with Janice Staedleman as representative. Permitting drill sites presented no problems, with only slight restrictions in a few small areas due to archeological sites, which are essentially trash piles from the mercury mining of the 1940's. No Native American archeological sites have been documented, which greatly eases permitting.

### **1999 Drilling**

Five angle reverse circulation holes totaling 4935' (1480m) were drilled in summer of 1999 with an Eklund TH-100 drill rig and booster compressor. Maximum depth reached was 1065' (325m). The holes were TD'd when water flow became excessive and impeded progress with the hammer. Samples were taken in five foot intervals and sent to Chemex Labs in Elko. Recovery was generally good. Locations are shown in figure 3.

All holes were surveyed by WellNav Inc. and most showed considerable deviation. This presented a problem in targeting, as the holes steepened near the bottom, and probably did not cut across a significant width of the steep target structures

SCT-1, SCT-3 and SCT-4 were targeted to test the deeper parts of a steeply west dipping structure inferred from surface geology, geophysics and data from previous drill holes obtained from Newmont.

SCT-2 was drilled toward the west to test the strong surface alteration near the Silver Cloud Mine pit.

SCT-5 was drilled in the west zone to test a CSAMT resistivity zone.

Summary assays are shown in table 1 and detailed assays shown in cross sections and drill logs (Appendix).

X-Ray diffraction, Petrography and PIMA alteration analyses undertaken on selected drill cuttings revealed a zoned hydrothermal system where the top 100m to 300m is within the vapor dominated advanced argillic zone containing low level Au. Below this level, higher temperature illite+buddingtonite alteration suggested that deeper drilling would be necessary to intercept potentially favorable alteration/mineralization assemblages.

### **2000 Drilling**

Two angle reverse circulation holes totaling 3470' (1041m) were drilled in summer of 2000 using an Eklund RD-10 deep hole rig and booster compressor.

SCT-6 was drilled toward the east to intercept the down-dip projection of the inferred west-dipping gold bearing structure encountered in SCT-1 and Newmont hole DDH 93089. The hammer watered out at 785' (257m) and a rock bit was used to TD at 1745' (572m). Excessive water flows of over 100 gpm at the unconformity with the Valmy quartzite at bottom of the hole made sample recovery difficult.

SCT 7 was drilled 1700' (550m) south of SCT-6 to intercept the down-dip projection of an inferred structure encountered in drill hole SCT-3. The hammer watered out at 945' (310m). Again, high water flows made drilling difficult, and a rock bit was used to TD at 1725' (567m). Sample recovery and quality was fair to good.

Sample procedures and assaying were the same as in phase one, and both holes were surveyed by WellNav.

Results of this drilling were extremely encouraging, and further PIMA work and trace element geochemistry was done on selected cuttings.

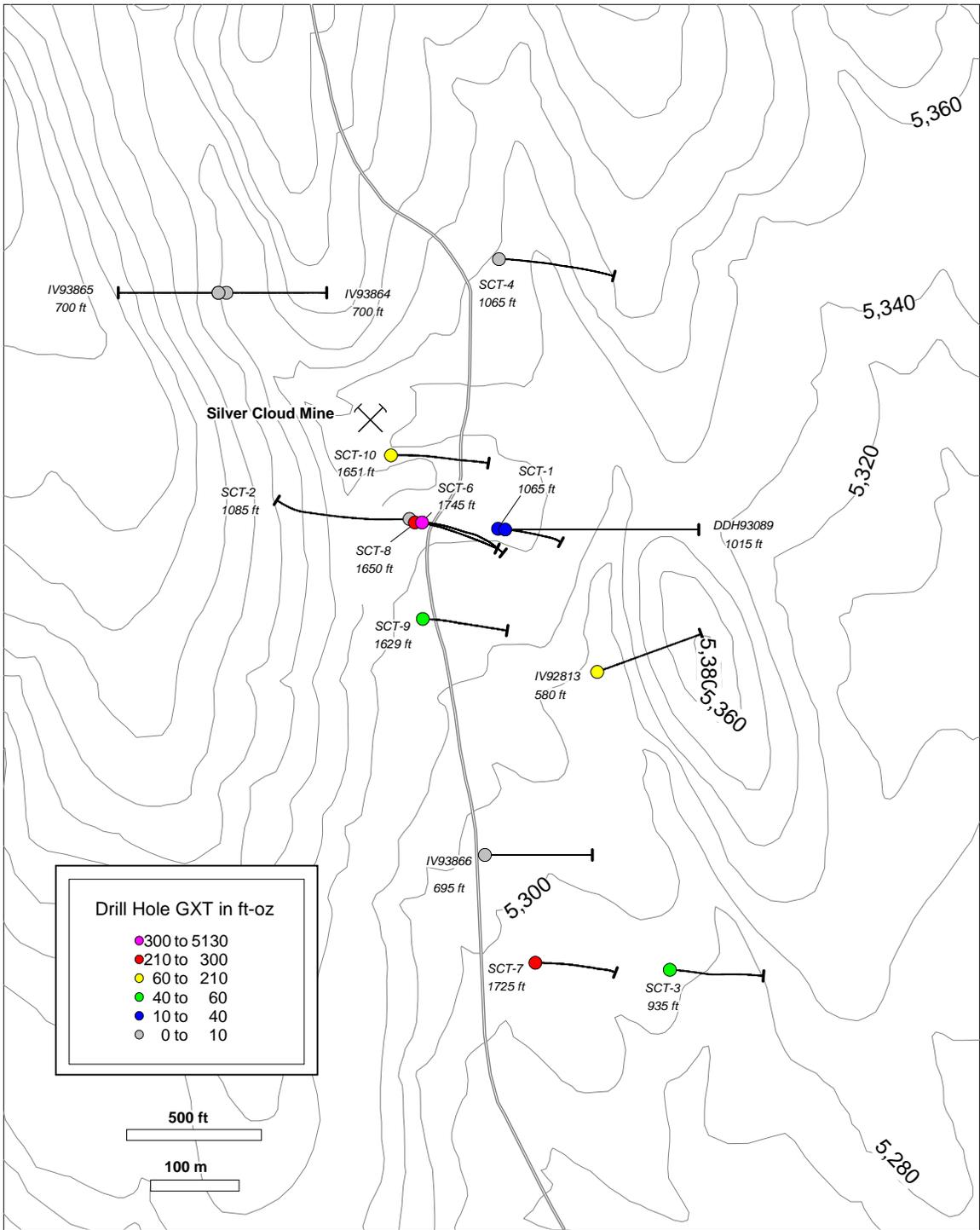


Figure 3. Locations of Teck and Newmont Drill Holes in the Silver Cloud Mine Area



2000 Drilling on the Silver Cloud Project, hole SCT-7



2001 Drilling on the Silver Cloud Project, holes SCT-8 and SCT-9

## 2001 Drilling

Three angle holes were drilled in summer of 2001. These were pre-collared and cased using an Eklund TH-75 drill rig. A Conners Drilling core rig using HQ rods and a triple wall core barrel was used to drill below 800'. Recoveries were very good, averaging over 95%. The core was taken to Battle Mountain where the visually interesting zones were sawed, and the rest split. Sample intervals ranged from 2.5 ft to 10 ft. and were sent to Chemex in Elko. The pre-collars of all three holes were surveyed, as well as the deeper parts of SCT-8 and 10, but caving in SCT-9 prevented a deeper downhole survey.

SCT-8 was drilled 30' (10m) west of SCT-6 to twin the mineralization found in that hole. The two holes differed in several ways. The RC cuttings of the high grade gold zone in SCT-6 (5' @ 4.6 opt, from 1045'-1050') consisted of grey pyritic clay chips with fragments of white granular quartz, and is interpreted to be a fault zone. The same depth in the core hole SCT-8 did not contain as much clay, and very little quartz. However, small banded quartz-adularia-marcasite veins containing up to 7.6 g/t occurred at a shallower depth of 955' (313m).

Gold values deeper in the core hole did not correlate well, with only spotty low-level anomalies below 1120' (340m). No gold was encountered in the lower tuff or the Valmy quartzite in the core, although the alteration, consisting of calcite, quartz and adularia appeared quite favorable. Anomalies up to 9 g/t in the lower tuff and .8 g/t in the Valmy occurred in hole SCT-6 in similar alteration.

The differences might be explained by an east-dipping mineralized structure which captured the RC hole (SCT-6). The core hole was just far enough east to miss this structure, and the veins encountered might be small splays off this structure. In conversations with Great Basin Gold geologists, the ore-hosting structures at Ivanhoe are narrow and steep and geochemistry is extremely weak within very short distances from the veins. It would be very easy to miss these zones. Vein orientations in the core were almost parallel to core axis, adding weight to this possibility.

At Ivanhoe there are many barren veins hosted in the Valmy within a short distance of the bonanza grade banded veins.

SCT-9 was drilled 350' (115m) south of SCT-6 and 8 to test the southern strike of the inferred NW mineralized structure. Anomalous gold of 40' @ .32 g/t including 5' @ 1.2 g/t was encountered from 1085' to 1225' in strongly argillized rhyolite containing pyritic breccias. An intercept of 10' @ 2.9 g/t including 5' @ 4.57 g/t was encountered from 1280' to 1290'. This occurs in a small irregular banded quartz+adularia? vein within strongly de-vitrified rhyolite. No significant gold was encountered in the lower tuff or the Valmy quartzite, but strong calcite-illite pyrite alteration was evident in the tuff, and steep to core axis quartz+adularia veins were present in the quartzite.

SCT-10 was drilled 260' (85m) northwest of holes SCT-6 and 8 in the old Silver Cloud open pit. Strong silicification and argillization of the rhyolite contained anomalous gold of 15' @ .355 g/t from 925' to 940' and 80' @ .213 g/t from 1000' to 1080'. As discussed below, lamellar calcite veins encountered in this hole provide strong evidence for boiling, indicating that the unconformable contact with the quartzite will be an important zone for future exploration.

DrillHole	Start	End	Feet	Au ppm	Au opt	Au Intercept	Start	End	Width	Au ppb	Auopt	Start	End	Width	Au ppb	Au opt	
DDH93089	455	465	10	1.640	0.05	10' @ 0.048 cpt											
IV90726	620	630	10	0.375	0.01	10' @ 0.011 cpt											
IV90726	1270	1275	5	1.782	0.05	5' @ 0.052 cpt											
IV90726	1575	1585	10	0.960	0.03	10' @ 0.028 cpt											
IV91738	870	880	10	0.309	0.01	10' @ 0.009 cpt											
IV91738	995	1005	10	0.429	0.01	10' @ 0.012 cpt											
IV91738	1240	1245	5	0.309	0.01	5' @ 0.009 cpt											
IV92813	210	225	15	0.343	0.01	15' @ 0.01 cpt											
IV92813	275	280	5	0.309	0.01	5' @ 0.009 cpt											
IV92813	290	305	15	0.674	0.02	15' @ 0.02 cpt											
IV92813	320	325	5	0.411	0.01	5' @ 0.012 cpt											
IV92813	360	365	5	0.411	0.01	5' @ 0.012 cpt											
IV92813	400	405	5	0.309	0.01	5' @ 0.009 cpt											
IV92817	690	700	10	1.063	0.03	10' @ 0.031 cpt											
SCT-1	380	395	15	0.375	0.01	15' @ 0.011 cpt											
SCT-1	390	395	5	0.480	0.01	5' @ 0.014 cpt											
SCT-1	740	760	20	0.575	0.02	20' @ 0.017 cpt											
SCT-3	295	300	5	0.300	0.01	5' @ 0.009 cpt											
SCT-3	315	335	20	0.618	0.02	20' @ 0.018 cpt											
SCT-3	345	350	5	0.460	0.01	5' @ 0.013 cpt											
SCT-3	655	665	10	0.320	0.01	10' @ 0.009 cpt											
SCT-6	905	915	10	0.480	0.01	10' @ 0.014 cpt											
SCT-6	930	935	5	1.190	0.03	5' @ 0.035 cpt											
SCT-6	950	955	5	0.685	0.02	5' @ 0.02 cpt											
SCT-6	965	970	5	0.410	0.01	5' @ 0.012 cpt											
SCT-6	1020	1060	40	20.240	0.59	40' @ 0.59 cpt, inc. 5' @ 0.031cpt and 5' @ 4.603cpt	1020	1025	5	1076	0.031	1045	1050	5	157746.2	4.603	
SCT-6	1080	1085	5	0.520	0.02	5' @ 0.015 cpt											
SCT-6	1205	1210	5	0.480	0.01	5' @ 0.014 cpt											
SCT-6	1235	1245	10	0.455	0.01	10' @ 0.013 cpt											
SCT-6	1270	1280	10	0.373	0.01	10' @ 0.011 cpt											
SCT-6	1290	1305	15	0.890	0.03	15' @ 0.026 cpt, inc. 5' @ 0.047cpt	1290	1295	5	1596	0.047						
SCT-6	1320	1325	5	1.145	0.03	5' @ 0.033 cpt, inc. 5' @ 0.033cpt	1320	1325	5	1145	0.033						
SCT-6	1335	1345	10	0.650	0.02	10' @ 0.019 cpt											
SCT-6	1350	1355	5	0.645	0.02	5' @ 0.019 cpt											
SCT-6	1390	1395	5	0.445	0.01	5' @ 0.013 cpt											
SCT-6	1405	1410	5	0.670	0.02	5' @ 0.02 cpt											
SCT-6	1425	1445	20	2.025	0.06	20' @ 0.059 cpt, inc. 10' @ 0.101cpt	1430	1440	10	4858	0.101						
SCT-6	1455	1485	30	2.767	0.08	30' @ 0.081 cpt, inc. 15' @ 0.146cpt	1465	1480	15	3019	0.146						
SCT-6	1495	1525	30	0.537	0.02	30' @ 0.016 cpt											
SCT-6	1510	1525	15	0.581	0.02	15' @ 0.017 cpt											
SCT-6	1540	1580	40	0.459	0.01	40' @ 0.013 cpt											
SCT-6	1635	1640	5	0.650	0.02	5' @ 0.019 cpt											
SCT-7	850	860	10	0.445	0.01	10' @ 0.013 cpt											
SCT-7	880	900	20	0.390	0.01	20' @ 0.011 cpt											
SCT-7	995	1000	5	0.340	0.01	5' @ 0.01 cpt											
SCT-7	1015	1020	5	0.300	0.01	5' @ 0.009 cpt											
SCT-7	1030	1040	10	0.318	0.01	10' @ 0.009 cpt											
SCT-7	1050	1055	5	0.305	0.01	5' @ 0.009 cpt											
SCT-7	1080	1145	65	0.387	0.01	65' @ 0.011 cpt											
SCT-7	1155	1165	10	1.543	0.04	10' @ 0.045 cpt, inc. 5' @ 0.075cpt	1160	1165	5	2580	0.075						
SCT-7	1170	1180	10	0.363	0.01	10' @ 0.011 cpt											
SCT-8	895	970	75	0.775	0.02	75' @ .02 cpt, inc 8.5' @ .11 cpt, inc 2.5' @ .25 cpt	949	957	8.5	3408	0.109	955	957.5	2.5	7680	0.250	
SCT-8	975	1025	50	0.224	0.01	50' @ .007 cpt	1000	1010	10	443	0.014						
SCT-8	1087.5	1125	37.5	0.328	0.01	37.5' @ .011 cpt											
SCT-8	1260	1270	10	0.392	0.01	10' @ .013 cpt											
SCT-8	1405	1410	5	0.880	0.03	5' @ .028											
SCT-9	1085	1225	40	0.326	0.01	40' @ .014 cpt, inc 5' @ .04 cpt	1205	1210	5	1240	0.040						
SCT-9	1280	1290	10	2.920	0.09	10' @ .09 cpt, inc 5' .147 cpt	1285	1290	5	4570	0.147						
SCT-10	925	940	15	0.355	0.01	15' @ .011 cpt											
SCT-10	980	985	5	0.365	0.01	5' @ .012 cpt											
SCT-10	1000	1080	80	0.213	0.01	80' @ .007 cpt											
SCT-10	1185	1190	5	0.350	0.01	5' @ .011 cpt											

Table 1. Silver Cloud drilling assay summary

## ALTERATION

Alteration studies were performed on selected drill cutting from holes SCT-1 through SCT-7. Two hundred seventy three samples were submitted for PIMA analysis in 1999 and 2000. The study found near surface, advance argillic assemblages of koalinite+alunite in the top 106m to 300m of the drill holes. Below this is an up to 210m thick buddingtonite (NH<sub>3</sub>feldspar) +kaolinite zone. An NH<sub>4</sub> illite+kaolinite assemblage underlies this zone. The highest assay of 156 g/t in hole SCT-6 was associated with a kaolinite-smectite assemblage within a buddingtonite-illite-chlorite zone. Visually, this zone consisted of grey gouge like clay containing white granular quartz fragments.

X-Ray diffraction analysis was done on ten samples from holes SCT-1 and SCT-2. Quartz was the major component in the cuttings. Also present were kaolinite, dickite, alunite, NH<sub>4</sub> alunite, pyrite, sanidine, orthoclases, buddingtonite and illite/smectite. Clay thermometry of the mixed layer illite/smectite indicated a temperature of formation below 180 C, lower than expected in most epithermal vein systems and pointing to a greater depth for prospective mineralization.

Petrography was done on quartz vein material from hole SCT-3, interval 320' – 325' (685 ppb Au). Vapor dominated fluid inclusions in some fragments indicated that the quartz was precipitated from the boiling of fluids.

Observations of core from holes SCT-8 through SCT 10 revealed some details regarding timing and levels of alteration. In the rhyolite porphyry below depths of approximately 300m, discontinuous veinlets consisting of clear to granular quartz cores with pinkish envelopes of adularia? + pyrite occur along flow bands. These veinlets seldom exceed 3mm in width and are quite irregular. The flow bands are generally oriented at moderate angles to core axis. A later phase of pyrite+ marcasite veinlets and stockworks, sometimes with granular quartz cores cuts these earlier veinlets. These are generally oriented at steep angles to core axis. Rare, vuggy quartz-adularia-marcasite veins cut both of these early phases. The veins are < 10 cm wide, appear highly irregular, and show incipient banding of the quartz and adularia. White brecciated fragments within the veins are suggestive of calcite replaced by quartz. The margins consist of colliform, strongly banded marcasite. The highest gold assay in the core holes of 7.6 g/t over 2.5' occurred in one of these veins at a depth of 955' (291m) in hole SCT-8. Another vein at 1285' (392m) in SCT-9 contained 4.6 g/t over 5'. Because of the highly irregular nature of these veins, angles to core axis are difficult to judge, but are probably rather steep.

Strong illite-calcite-pyrite is the predominant alteration in the lower tuff unit. Pumice lapilli are replaced by calcite, sometimes with pyrite rims and cores. The calcite is pinkish in color which may indicate the presence of adularia. Pyrite is in the form of euhedral cubes and octahedrons disseminated in strongly clay altered rock. Calcite also occurs as veins with lamellar (bladed) texture within the lower tuff in hole SCT-10 at a depth of 1470' (448m). Although this zone only contained 10 ppb Au, it is considered significant to understanding the depths for prospective ore zones. Lamellar calcite is considered very good evidence for boiling, and this vein occurs within 50' (15m) of the contact with the Valmy quartzite. Alteration in the Valmy abruptly changes to open-space, crustiform quartz+ adularia with no calcite, indicating that the unconformity is an important level in the hydrothermal system. The Valmy is very brittle and could easily hold open fractures for the formation of bonanza veins, with the overlying tuff acting as a fluid barrier.

At Ivanhoe the epithermal quartz veins developed almost exclusively in competent rocks of the Valmy. The hydrothermal fluids that produced veins dispersed widely in permeable Miocene tuffs, producing widespread argillization and silicification. This setting is also strikingly similar to the Hishikari gold deposits in Japan. (Fig. 4).

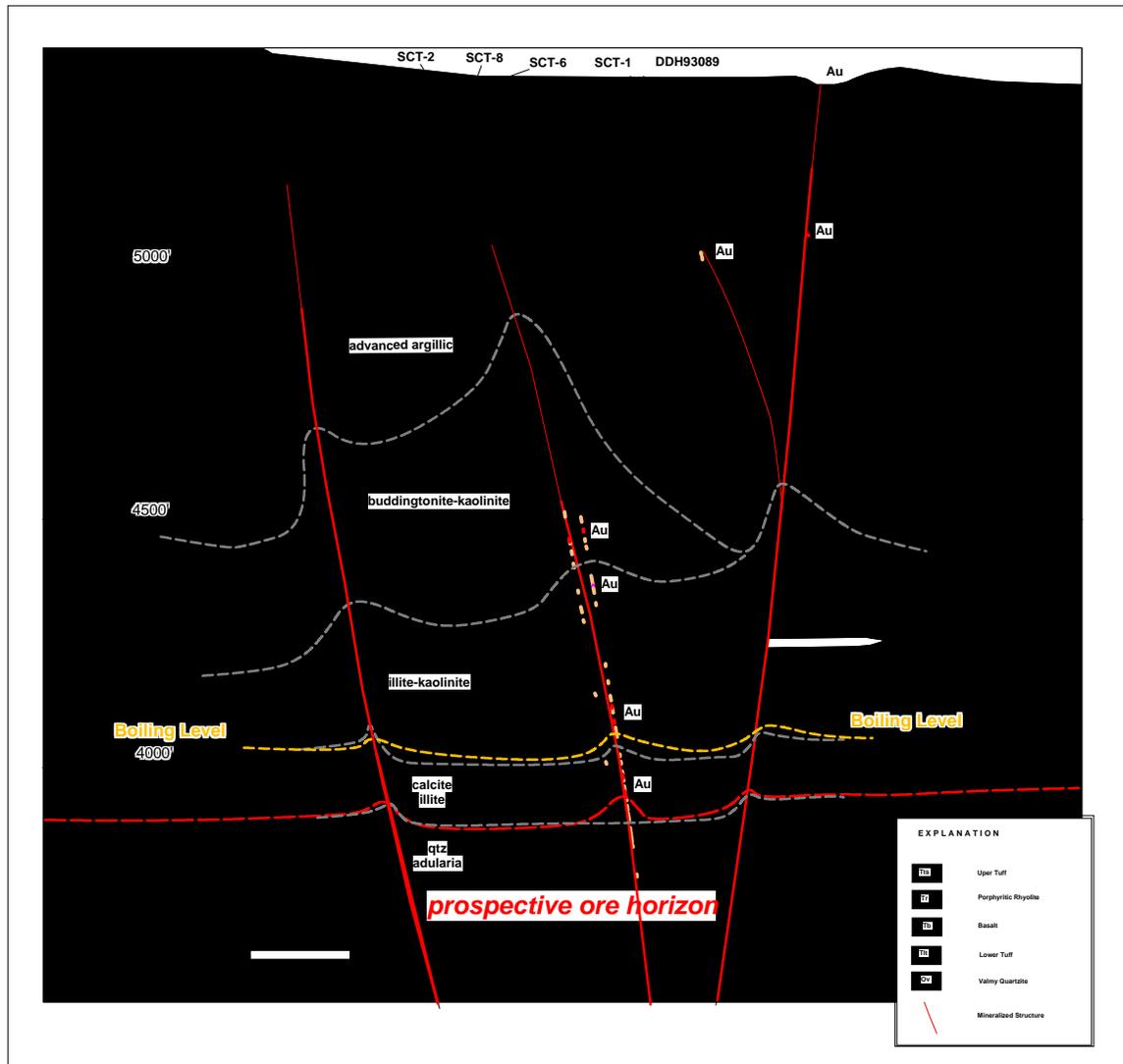


Figure 4. Schematic Cross Section 44400N

## GEOCHEMISTRY

A total of 2629 drill samples were submitted to Chemex Labs for 30 gram (1 assay ton) fire assay with A.A. finish. Twenty four one kilogram samples were taken from coarse rejects from selected higher grade intervals in holes SCT-6 and SCT-7 and were assayed by pulp and metallic method. Results showed acceptable limits and did not indicate the presence of coarse gold. Thirty gram duplicate samples from this group were run with standard assay and reproduced within acceptable limits.

Thirty six selected samples from SCT-6 and SCT-7 were run for 55 element ICP analysis. Results are discussed in more detail in (Harbaugh 2000), but basically showed the system to be selenium rich, analogous to both Midas and Ivanhoe. Positive correlation exists between gold and silver, arsenic, antimony, selenium, zinc and possibly molybdenum.

Strongest selenium occurs in the deeper parts of hole SCT-7, the southern most drilling to date. Silver is also highly elevated in this hole. In known deposits in the northern Nevada rift, selenium is a strong positive indicator of mineralization, and occurs as a proximal halo to high grade ore. For this reason, the area around drill hole SCT-7 is highly prospective and should be regarded as a valid target.

## **CONCLUSIONS**

The Silver Cloud project is underlain by an intact low sulfidation, selenium rich gold bearing hot spring hydrothermal system. Alteration assemblages indicate a zoned system with an overprint of advanced argillic, vapor-dominated alteration. The significant gold encountered in drilling thus far is associated with these lower temperature alteration assemblages and could be considered high-level leakage along structures.

High pH alteration consisting of adularia, calcite and illite, which is produced by boiling of fluids in conduits where high-grade ore accumulations can occur is present at depths below 1450' (475m), near the contact of the lower tuff and basement. All indications are that the prospective zones for discovery of bonanza grade veins lie below this unconformable contact within the Valmy quartzite, where open fractures are present. Drilling by Teck has defined a general area of upflow through these conduits, and the challenge will be to drill holes at angles shallow enough to cut across these steep structures at depth. A very small percentage of this large hydrothermal system has been explored to appropriate depths to date, and potential for discoveries of bonanza grade mineralization remains high.

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