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Silver Hill

EXPLORATION REPORT

FOLLY-VON-RUTH-ESMERALDA-SOUTH END CLAIMS

AURORA MINING DISTRICT, MINERAL COUNTY, NEVADA

1989 - 1990

by

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Reno, Nevada

CONTENTS

ILLISTRATIONS

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INTRODUCTION

Purpose of Report

A detailed report, dated February 1, 1987, was submitted by Lawrence describing the results of geologic, geochemical and geophysical surveys, which had been requested by Mr. Alexander von Hafften. Significant new data was discovered during geological mapping including petrological and structural relationships. Certain intrusives appeared to have a genetic relationship to mineralization. For the first time a northwesterly-striking set of faults related to the Walker Lane were mapped in fair detail and their relationship to the predominant east-northeasterly set of faults and veins were delineated. Mapping along the Prospectus fault revealed new data on the Juniata, Wide West, Humboldt and Prospectus veins. Geochemical samples were taken on Silver Hill and Middle Hill to determine if antimony, arsenic, mercury and/or tungsten could be used as trace elements for new ore shoots in the district. Geophysical surveys by VLF-EM methods using the Scintrex SE-81 Scopus EM receiver were made by Wade Hodges of Carson City , Nevada. That report attempted to correlate all new data collected between 1975 and 1987 with earlier reports.

An earlier report, (Lawrence, March 25, 1975) was made on the geology of the Hornet and Wasp mining claims. That report described the general geology of the district, the mineralogy and paragenesis of the veins, the underground geology, the results of the sampling program along the various veins both on the surface and underground, and attempted to correlate all geologic, geochemical and geophysical data up to 1975. Payne and Hughes gave a detailed report of the

Silver Hill area in 1965 in anticipation of a loan for mineral exploration from the Office of Mineral Exploration (OME). Payne (1967) submitted a geologic report on the Wasp and Hornet claims, and earlier that year described the importance of arsenic in geochemical precious metals exploration. Based on conclusions drawn from the geological, geochemical and geophysical data in these reports, recommendations were made to concentrate further exploration work in the area near the south end of the Esmeralda vein. This area was covered by the Esmeralda, South End and Ruth patented lode mining claims, and the Folly and Von groups of unpatented lode mining claims. Leases were obtained on these claims along with the Lab group of unpatented claims to the east. Geochemical surveys were made over portions of these claims in 1989. Thirteen holes were drilled in two phases in August and September, 1990. This report describes the results of the geochemical surveys in 1989 and the drilling program in 1990.

Location

The Esmeralda and South End claims are located in Section 30, T 5 N, R 28 E, MDBM (Fig. 1). The northwest corner of the Esmeralda claim is located approximately 800 feet S 5°W from the common quarter corner of Section 19 and 30. From this point the claim runs S 10°W for approximately 470 feet, thence 1070 feet in a S 20°W direction. It is 1500 feet long but only 200 feet wide. The north endline of the South End claim is a common endline with the south endline of the Esmeralda, except it extends 200 feet easterly and 200 feet westerly, being 600 feet wide and 1500 feet long. The Ruth claim sidelines the Esmeralda clain, and partially overlaps the South End claim. These claims have been held under a lease. The Folly group of unpatented claims has been leased from Nassau Limited, and consists of 57 claims that are contiguous on the westerly and southerly boundaries of the Esmeralda, South End and Ruth claims. Von 1 through 17 were located to the south and southeast. The Lab group of claims, now under

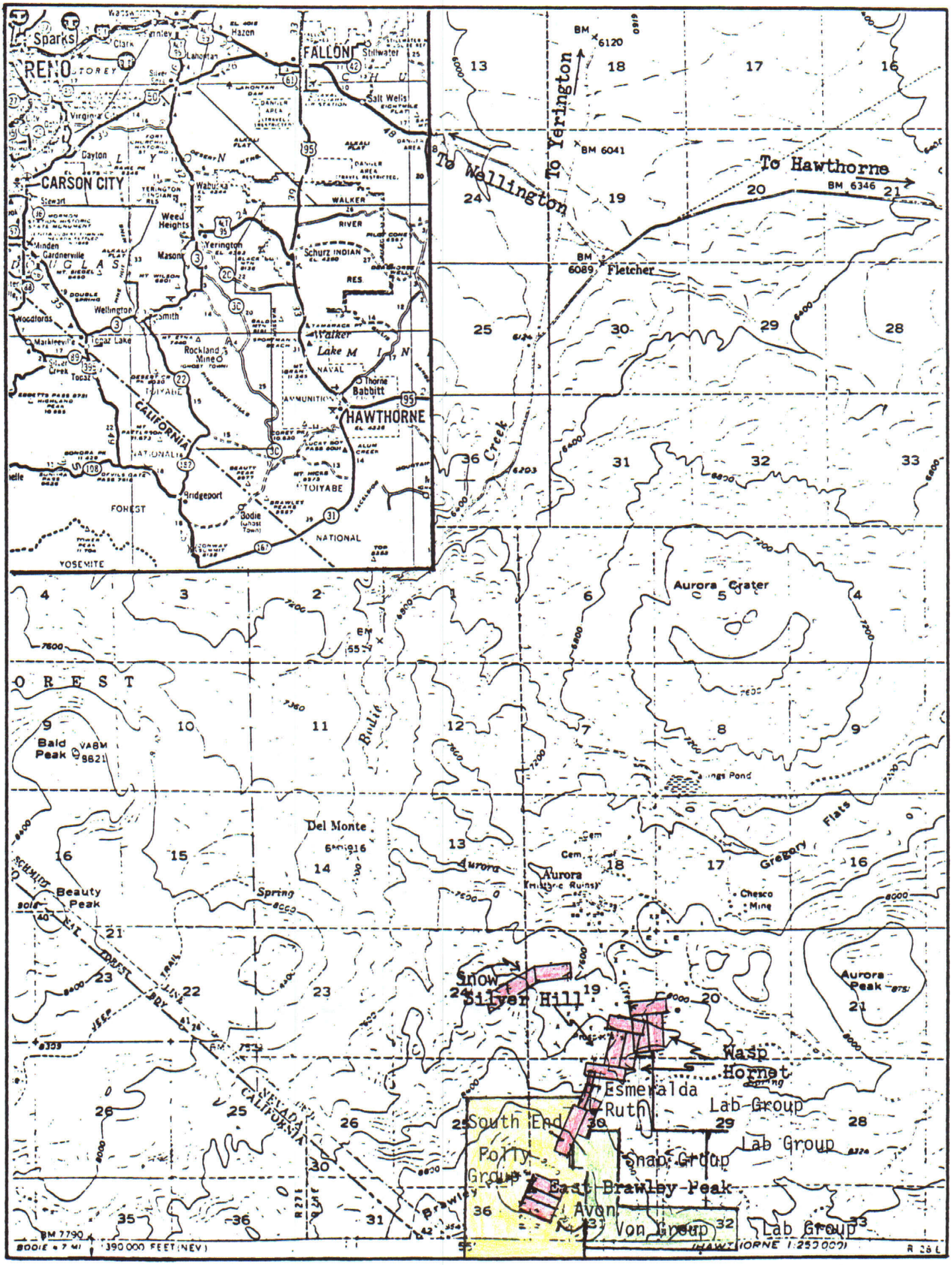


Figure 1. Location map showing claim groups.

lease, are contiguous to the Von group on its easterly boundary, and are located in Sections 27, 28, 29, 32, 33 and 34 of T 5 N, R 28 E, MDBM. The Folly group is located in Sections 30 and 31 of T 5 N, R 28 E, MDBM and Sections 25 and 36 of T 5 N, R 27 E, MDBM. In addition Avon 1 through 3 are held by Alexander von Hafften, and are located on the top of East Brawley Peak.

These claims are located on the eastern flank of Silver Hill and the northern slopes of East Brawley and West Brawley Peaks at an elevation of 7600 to 9545 feet approximately 28 miles southwest of Hawthorne, Nevada. The Aurora 15-minute USGS topographic quadrangle map covers the area.

Accessibility

Aurora may be reached by taking State Route 31 south from Hawthorne for 4 miles, thence via a good dirt road westerly over Lucky Boy Pass for 17 miles to Fletcher, thence southerly for 6 miles over a dirt road to the old town site of Aurora, and then southerly up Brewery Gulch for 0.6 miles to the claims.

It also may be reached by taking State Route 22 for 18 miles south from Wellington to Sweetwater at the East Walker River, thence 12 miles easterly on a narrow dirt road to Fletcher, thence 6 miles up a dirt road to Aurora, and then up Brewery Gulch to the claims.

A third route is State Route 3 and 3-C south from Yerington for 54 miles to Fletcher, thence 6 miles to Aurora, and thence 0.6 miles up Brewery Gulch to the claims. This road is usually rough and tedious. The roads to Fletcher from Hawthorne, Wellington and Yerington are passable most of the year but the dirt road from Fletcher to Aurora is impassable in the winter months and after heavy rainstorms. Although rough, these roads may be traversed in a passenger car as far as Aurora.

Natural Conditions

This group of claims is in an area of high relief with most of the area covered by sage, juniper, aspen, and pinyon pine. The elevation ranges from 7600 to 9645 feet. The terrain is rough and the slopes on each side of Brewery Gulch are steep. One spring on the Hornet 2 claim at the site of the old brewery runs all year and is used for watering sheep. The humidity is low and the annual rainfall is approximately 10 inches, divided between rain and snow. Snow usually accumulates early in the fall and may be several feet deep in the middle of winter. The temperature varies in the summer from a high of 90°F in the daytime to a low of 50°F at night with a mean annual temperature of approximately 40°F.

Operating Conditions

The roads from Fletcher to Aurora could be improved and maintained at a reasonable cost for haulage of supplies from Hawthorne. The Southern Pacific Railroad serves Hawthorne and the Naval Ordnance Depot via a station at Thorne, four miles east of Hawthorne. Any mining operation at Aurora would require a mining camp near the mine.

Water for mining and milling was available on Gregory Flats, Aurora Creek, and Bodie Creek during earlier operations. Charles Kirby Fox (1935, private report) reported that the Aurora well went dry in late summer and that Fletcher Springs had a flow of 60 gallons per minute. He estimated a surface run-off of 2 to 3 inches per year. Brewery Springs and Tamarack Springs were described as too small to furnish much water for mill use. L. B. Spencer estimated the flow at Tamarack Springs near the quarter corner of Sections 24 and 25, T 5 N, R 27 E, MDBM, to be approximately 60 gallons per minute. Goldfield Consolidate Mines Company developed water for their mill on Gregory Flats. The Surface flow there has been measured at 60 gallons per minute. In addition, the Real Del Monte shaft made a large qualtity of water on the 800-foot level. A water survey would be necessary to ascertain the present water supply but it does not appear to

present a major problem. Power has been available for past operations from a line of the Mineral County Power System.

GEOLOGY

Geology

The Mesozoic basement complex is uncomformably overlain by siliceous to intermediate volcanics of the Aurora formation (Green, 1964). These rocks are commonly dark gray to greenish-brown, with numerous white plagioclase phenocrysts in an aphanitic groundmass. Osborne (1985) mapped the andesite porphyry, andesite agglomerate and porphyritic andesite in the northern half of the district as the Aurora Sequence with an K-Ar age of 13.5 to 15.4 million years. This sequence appears to be valid for the whole district, and is equivalent to the Aurora Formation of Green (1964). The andesite porphyry is at least 325 feet thick at the Juniata Mine where it hosts the Juniata vein. The andesite agglomerate is dark reddish-brown, with fragments up to 4 inches in diameter set in a fine-grained andesitic matrix. This unit is at least 300 feet thick in the area of the Humboldt and Prospectus veins, but its thickness in the Esmeralda area has not been determined. The porphyritic andesite was described as a thin veneer up to 10 feet thick, exhibiting hornblende and biotite phenocrysts in a very fine-grained matrix of andesine (?) microlites. The textural differences may be due either to compositional differences at the time of extrusion of the lava or may be due to local physical conditions as the lava flowed over the surface. Some of the andesite that appears to be intrusive may also be flows that merely broke through earlier cooling flows. The thicknesses given by Osborne may be close to the maximum thickness for the Aurora volcanics.

The Aurora volcanics have been intruded by dikes, plugs and stocks of rhyolitic to latitic composition. One such dike cuts the Aurora volcanics in an easterly-westerly direction across the south end of the Esmeralda vein, and is

exposed in the roadcut in the middle of the Ruth claim and at the "White" dump, and extends across the extreme north end of the South End claim. Several other dikes and dikelets of this quartz porphyry occurs near the south end of the surface exposure of the Esmeralda vein, and another small plug or dike occurs at the south end of the Ruth claim, extending over into the north end of the Von 1 claim. These rhyolitic to latitic intrusives are usually highly argillized and/or silicified. In places they resemble typical quartz porphyry. Similar intrusives have been observed spatially associated with high grade ore in the Summit vein on Middle Hill, the Antelope vein on Silver Hill, 250 feet north of the Humboldt vein and within 80 feet of the Prospectus vein. Lawrence (1987) wrote that the spatial association of these intrusives with the various veins may suggest a genetic relationship, and might possibly be used in locating drilling targets.

The outcrop of the Esmeralda vein is quite prominent on the ridge line for approximately 940 feet from the north endline of the Esmeralda patented claim. At this point the vein has been cut off completely by a northwesterly fault. It was thought that the vein may have been off-set easterly along this northwesterly fault, and that some smaller quartz veinlets might be the surface expression of the Esmeralda vein to the south to its intersection with the white quartz porphyry dike near the common endline of the Esmeralda and South End claims. Later drilling proved this supposition to be correct.

Much of the area on the Folly-Ruth-Esmeralda-South End group of claims has been covered by volcanic ash similar to that on Last Chance Hill. Colluvium is admixed with the volcanic ash. This cover complicates soil sampling for geochemical surveys.

Lawrence, Chesterman and others have suggested large calderas in the Bodie-Aurora area. Cravity surveys support the postulated caldera on the flat approximately two miles northwesterly from the Aurora crater. Both this caldera

and the Aurora crater may be along the northern margin of a much larger caldrea that would include the whole Aurora district. The Folly, Von, Ruth, Esmeralda and South End claims would lie along the south rim of such a caldera, and would allow for possible ring fractures and radial fractures that might be mineralized.

Structural Geology

Faulting has been the major structural element in the Aurora district and has been the principal control in the localization of ore shoots. Folding has been negligible, although Al-Rawi (1970) reported a broad regional post-mineralization N 65°E - trending upwarp that has apparently tilted the district at least 20 degrees to the northwest. There are four systems of faulting in the Aurora district. In order of importance, they strike N 45° to 70°E, north-south, N 10° to 30°W, and N 70°W.

The older northeast system of normal faults strike N 45°E to N 70°E and have dips from 20° SE to 75° NW and exhibit great continuity. Most of the ore bodies of the district have been found in these northeasterly striking faults. Brecciation of vein-filling and the presence of slickensides and fault gouge indicate some post-mineral and intra-mineralization movement. This faulting is part of the regional tectonic patterns in western Nevada, and appears to be the westerly extension of the Southern Nevada (Pancake) structural zone. The north-south system of faults generally have steep dips and persists with continuity along strike. The fault zones are usually 10 to 20 feet wide, but may be up to 55 feet in width. They show both right-lateral and left-lateral offsets along northeasterly and northwesterly faults.

The N 10°W to N 30°W striking faults in Aurora were first described by Lawrence (1987). These faults are part of the Walker Lane structural zone and may mark the western boundary of the Walker Lane. Although not previously noted, they are quite prominent once observed. They offset both the northeasterly and

north-south striking structures. In places these faults are closely spaced. The N 70°W faults are less obvious, but occurs thoughout the Aurora district. They appear to be more prominent on East Brawley and West Brawley peaks, immediately south of Silver Hill.

Rowan (1988, p. 1416) and others have described the Southern Nevada structural zone which transects the Walker Lane in the vicinity of Luning, Nevada. This zone appears to extend over Luck Boy Summit and westerly through Aurora and Bodie to the Mono Lake area. Rowan (1981, p. 1414) states that the Southern Nevada structures zone, the Walker Lane, and the Humboldt structural zone in northern Nevada "are conjugate shears formed during and after middle Miocene extension of the Great Basin". These lineaments reflect only the most recent movement along broad crustal zones that may be early Tertiary to Mesozoic in age. Deformation within these structural zones (Shawe, 1965) apparently occurred in response to two different regional stress patterns, one active prior to 14.5 million years ago, and the other active from 14.5 m.y. to the present time. Under these conditions the two primary shear directions should be northeasterly with left lateral shear, and north-northeasterly with right lateral shear. The earlier stress pattern should be similar but rotated slightly to the east. The four systems of faulting at Aurora appear to fit into the tectonic pattern described by Rowan and Shawe for western Nevada.

Alteration

There appears to be an indistinct alteration zoning in the Aurora district with propylitization over most of the area, argillization along the northern edge of Aurora townsite, and strong silification in the southern part. Sericitization is common along the veins, decreasing away from the veins, and is present over most of the district. The country rock on Silver and Middle Hills in the southen part of the district has been intensely silicified, with numerous quartz veinlets

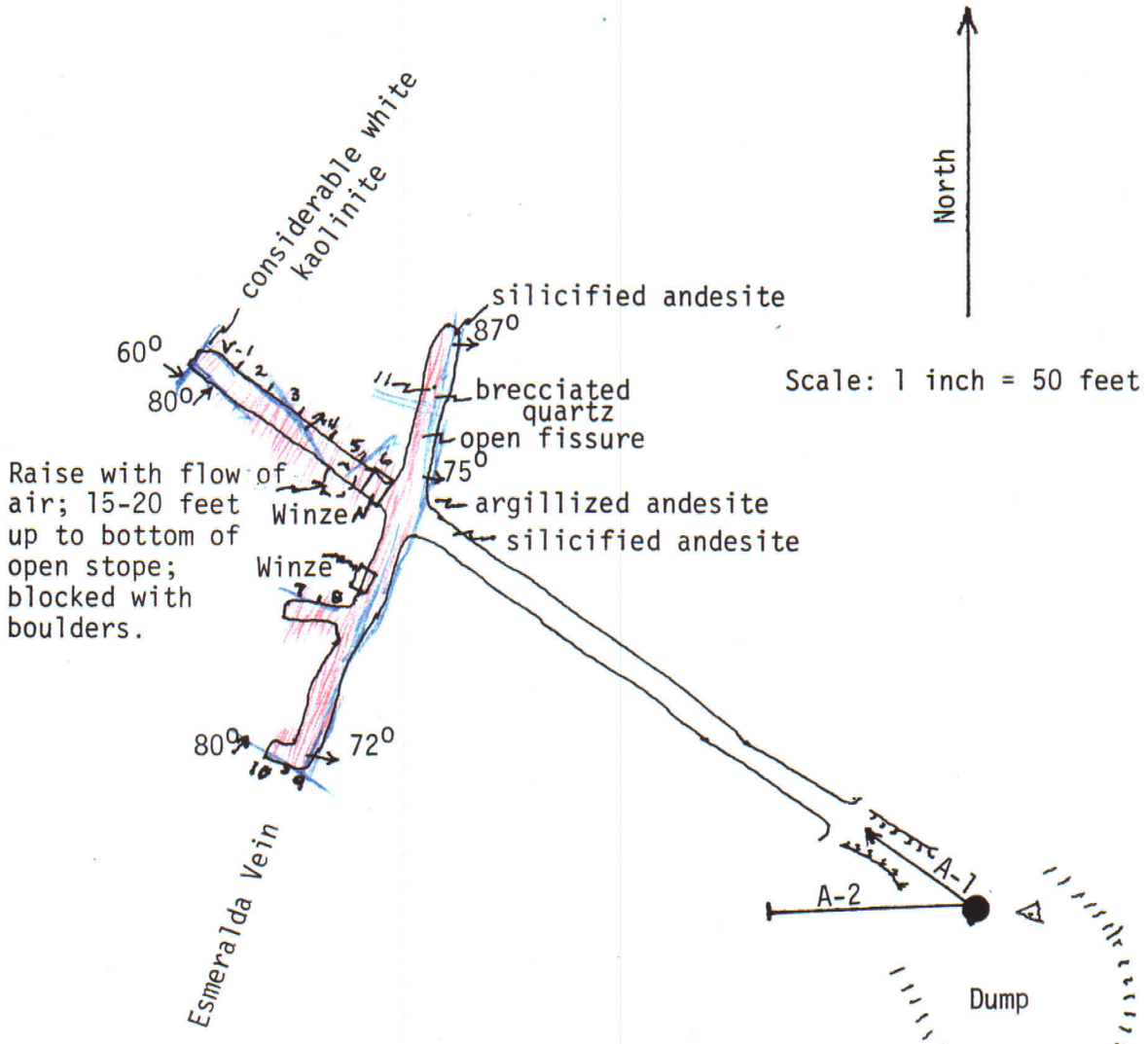
in stringer zones between veins. This same condition prevails in the Clarence adit, 538 feet below the surface of Silver Hill. The silicified craggy outcrops on the northeast slopes have resisted erosion and form a steep slope. The Aurora volcanics show propylitic alteration to chlorite, calcite, zoisite, epidote, quartz, and pyrite, with the intensity of alteration increasing toward the veins. The overlying Bodie Canyon volcanics have not been altered.

MINERAL DEPOSITS

Gold and silver occur in anastamosing quartz veins in the Aurora Mining District as native gold and acanthite (argentite). The total production was 669,962 tons that yielded $31,409,013. The gold to silver ratio was reported by Hill (1915) to be from 1:5 to 4:2 but was recorded as 1:14 by Ferguson (1929, p. 138) These veins occur in the northeasterly fractures, with the richest ore occurring near their intersection with north-south faults over an area 2 miles in length by 1½ miles in width. The veins are in Aurora volcanic rocks and vary in thickness from a few inches to 100 feet. The ore shoots are marked by irregular wavy streaks of quartz, adularia, argentiferous tetrahedrite, traces of pyrite and chalcopyrite, and a soft bluish-gray mineral containing gold, silver and selenium. These veins are epithermal and have been classified by Payne (1967, p. 23) as gold-selenide epithermal according to the Lindgren scheme of classification. However, there is some question as to the occurrence of selenium in the ore.

Esmeralda Vein

The Esmeralda vein strikes N 5°E to N 20°E and dips generally at 65° to 88° to the east, although locally it may show reversals. It is 72 feet in width as measured in the old Esmeralda Adit (Fig. 2), and as observed in the drill holes.



V-1	235	ppb	gold
2	75	"	"
3	205	"	"
4	105	"	"
5	90	"	"
6	790	"	"
7	880	"	"
8	320	"	"
9	300	"	"
10	760	"	"
11	440	"	"

Figure 2. Esmeralda Adit, Aurora Mining District, Mineral County, Nevada.

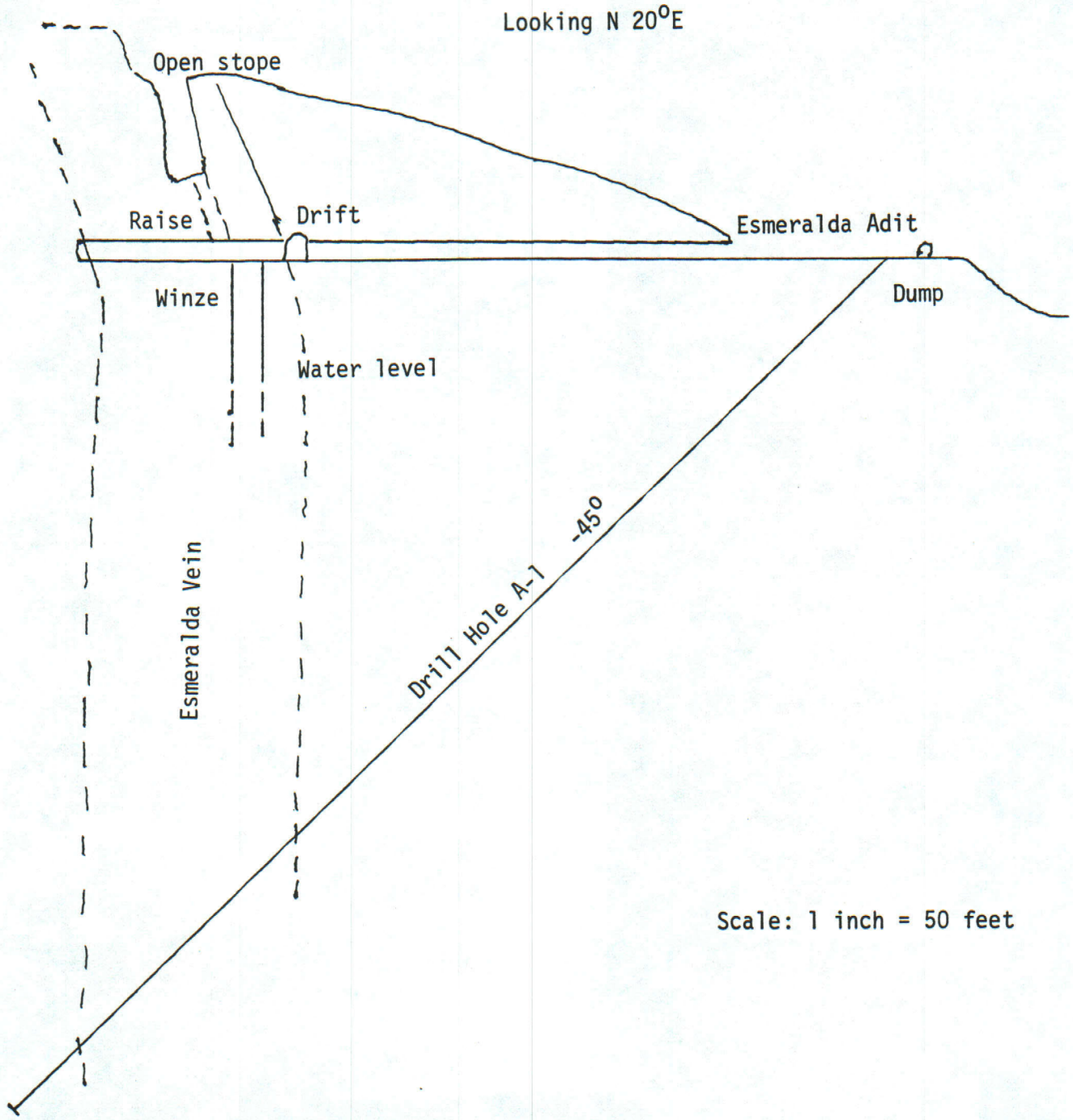


Figure 3. Cross-section through open stope, Esmeralda Adit and Drill Hole A-1.

It shows strong continued movement during the period of mineralization with numerous adjacent veinlets forming composite veins. Sometimes the movement breaks across veinlets previously formed, giving cross-cutting relationships in the same vein which might lead an unsuspecting geologist to suggest two periods of mineralization, rather than one period of mineralization, with continued movement and breaking. The bold outcrop of the Esmeralda vein is an excellent example of the process of vein formation, which is more common in the field than in the literature.

The vein shows left-lateral offsets along two northeasterly striking faults and both right-lateral and left-lateral offsets along northwesterly striking faults. The northern extension of the Esmeralda vein is called the Radical vein. The original discovery of gold in the Aurora (Esmeralda) Mining District was made here on the Esmeralda vein. Considerable mining was done on the vein in the middle of the claim. The exact production is not known, but large stopes attests to the fact that the grade must have been fairly good. One of these stopes is open to the surface. Most of the mining appears to have been done in the hanging wall of the vein in the eighteen-sixties (Fig. 3).

The Esmeralda Adit cuts the vein at 138 feet from the portal and continues through the vein for a width of 72 feet. A winze was sunk in the hanging wall of the vein at 152 feet from the portal. This winze has water standing at a level approximately 40 feet below the adit level. A raise connects this level with the open stope above, but it has been plugged with boulders. Drifts have been driven in the hanging wall of the vein 50 feet in a N 10°E direction, and 72 feet in a S 20°W direction. The adit level is approximately 60 feet below the top of the open stope on the surface. Eleven samples, V-1 through V-11, were cut on the vein as shown on Figure 2. Assays were disappointing.

The principal gangue minerals are quartz and adularia, with occasional calcite. The quartz is usually finely granular, white, and barren-looking, and

sometimes has a porcelain-like appearance. Crustification is common, usually with numerous vugs lined with quartz crystals. Some vugs have quartz crystals up to 50 millimeters long, and occasionally have double terminated crystals. Banding is common, caused by crustification, with bands consisting of variations in grain size of the quartz. Some ribbon quartz was formed due to rebreaking of the walls during mineralization, allowing thin seams and septa of wallrock to be enclosed in the quartz veins. Usually this material has been altered to kaolinite or sericite. The adularia is commonly found as irregular grains and pods in the quartz veins, but occasionally is found as subhedral to euhedral crystals. Usually it is found along narrow seams with kaloinite and sericite.

Mineralogy

The principal ore minerals are native gold and acanthite (argentite), with small to trace amounts of argentiferous tetrahedrite, pyrite, chalcopyrite, and reportedly a bluish-gray mineral containing gold, silver and selenium. Acanthite was the principal mineral in the rich Esmeralda ore shoot, and was reported in the Lady Jane and Antelope veins in Silver Hill. Trace amounts of antimony, arsenic, and mercury have been reported. The rich ore is always marked by irregular wavy streaks and contains tetrahedrite, pyrite, and chalcopyrite (Hill, 1915, p. 148). Sericite and adularia are usually associated with the high grade streaks.

Tenor of Ore

Crouch (1943, p. 99) reported a total production for the Aurora district of $31,409,013 recovered from 669,962 tons which average $46.88 per ton. Reportedly the average grade of the ore was $6.00 to $8.00 per ton but some ore ran as high as $1,000.00 per ton. The gold to silver ratio was 1:2 to 1:5 (Hill, 1915, p. 150). Some of the ore ran high in silver and possibly should be classified as

silver-gold veins.

Ore Shoots

The richest ore occurs in ore shoots in the various veins where localization appears to be controlled by structures, and possible is relatable to a late near-surface boiling stage. These shoots, occurring in large barren veins, are relatively small, and usually a fraction of an inch to 6 inches in width; and they occurred near the walls, usually the hanging wall (Hill, 1915; Meinecke, 1935, p. 5). The importance of hanging wall branches of the vein as a "favored place for ore deposition just above the vein intersection" was emphasized by Payne (1965, p. 23; 1967, p. 20). He concluded "this structural situation is very productive in other Great Basin precious metal camps".

A particularly rich shoot averaging $300.00 per ton in silver and a very small amount of gold, was found in a chimney about 2½ feet wide and 70 feet long, extending to a depth of 70 feet (White, 1869, p. 93) in 50 feet of other-wise barren quartz in the Esmeralda vein.

Recent mapping has shown a close spatial and probable genetic relationship between dikes, plugs and stocks of rhyolitic to latitic composition. There is a large stock of quartz porphyry outcropping on the east end of Middle Hill, which is closely associated with the Summit and other veins. There are numberous dikes on the north flank of Silver Hill that are associated spatially with the Antelope, Lady Jane, Cortez, Utah and other highly productive veins. A dike of white quartz porphyry, striking east-northeastly, cuts across the south end of the Old Esmeralda vein. Felsic to intermediate intrusives also occur along the Prospectus and Humboldt veins. Further detailed mapping may reveal simular intrusives around the Juniata and other veins.

GEOPHYSICAL SURVEYS

VLF-EM Surveys

Extensive VLF geophysical work was initiated by Hanna Mining Company in 1981,and finished in 1982. Reportedly this survey indicated the extension of the known gold-bearing veins beneath over-lying post-mineral volcanic rocks. The accuracy of the VLF technique was verified by later drilling. Based on this information, Alexander von Hafften contracted with Wade A. Hodges, consulting geologist, of Carson City, Nevada to conduct a VLF-EM survey over the southern half of the Aurora district using the Scintrex SE-81 Scopus EM receiver. The lines were run on 200 foot centers.

The strongest VLF anomaly occurs on the east end of Middle Hill, and coincides with the outcrop of a felsic (quartz porphyry) instrusive. The highly productive Summit vein occurs along the north side of this intrusive. There appears to be a low-angle intersection of two anomalies near the Summit shaft. One of the more interesting VLF anomalies extends southwesterly across the south end of the Esmeralda vein. Another smaller anomaly strikes southwesterly across the "white" dump and along a dike of felsic (quartz porphyry) rock, and extends beyond the area of survey. These two anomalies may be indicative of an area favorable to ore deposition.

Geochemical Surveys

Geochemical surveys were run over the south one-third of the Esmeralda claim and extended to the east over the middle of the Ruth claim (Fig. 4). From a point on the extreme south end of the surface exposure of the Esmeralda vein, a point was established as "0" north-south and "0" east-west. From this point a grid was established in a S 40°W direction for 2600 feet to the northwest corner of the Avon 1 clain. East-west lines were established at 50-foot intervals. Samples were take as far as 1200 feet easterly and 300 feet westerly. Holes were dug to the "B" horizon of the soil. Samples were screened, and put into paper

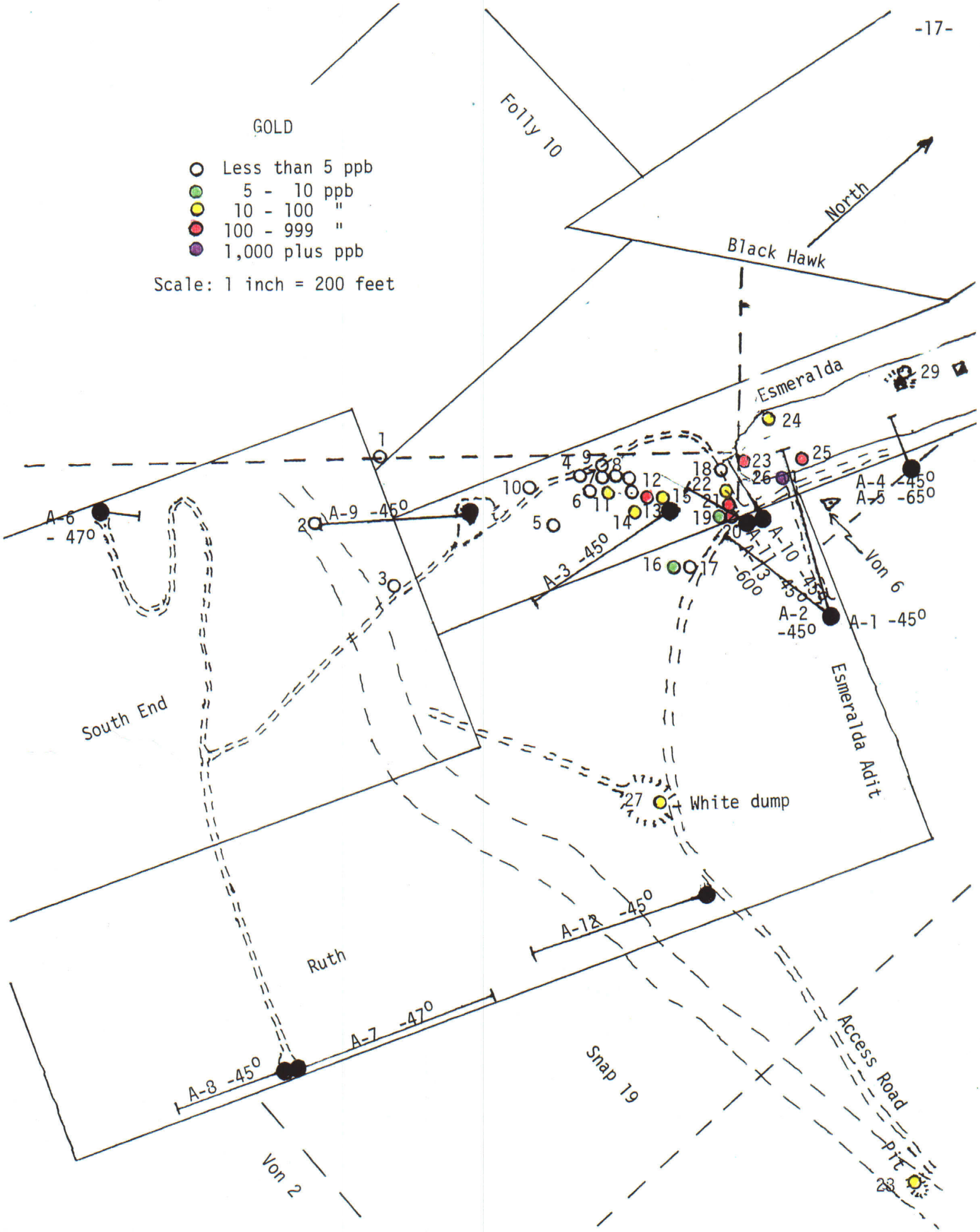


Figure 4. Map showing location of drill holes and geochem samples R-1 through R-29.

sample bags for geochemical analysis. 237 soil samples were taken over this grid, and an additional 31 rock chip samples ("R" series) were taken at random over the few available outcrops on the Esmeralda, South End and Ruth claims. Samples No. V-1 through V-11 were taken underground (Fig. 2) across the Esmeralda vein, and V-12 through V-51 were cut at 25-foot intervals along the hangingwall of the Esmeralda vein, begininning at "0" North and "0" East-West and then extending along the east side of the vein to the north endline. All of these samples were sent to Chemex Labs, Inc. in Sparks, Nevada. The first batch of 72 soil samples and 31 rock samples were analyzed for gold, silver, arsenic, antimony, mercury and tungsten, but the balance of the soil samples and the vein samples (V-1 through V-51) were analyzed for all of these elements except tungsten.

One of the rock-chip samples, R-26, from a small pole of broken ore on the edge of the open stope, showed good values with 10,000 ppb gold (0.3 oz/ton), and 100 ppm (3.2 oz/ton) silver (Fig. 4). All of the samples showed anomalous values in mercury, and several of these were anomalous in arsenic, antimoy and tungsten.

The first batch of seventy-two soil samples reported by Chemex Labs on September 18, 1989 revealed low values of gold, silver, arsenic, antimony, mercury and tungsten (Fig. 5 - 10). These low values may have been caused by sampling problems due to the thick cover of volcanic ash and colluvium. The second batch of soil samples were taken much deeper. The analyzes reported by Chemex Labs on October 31, 1989, showed anomalous values in quite a few of the samples for arsenic, antimony and mercury. Some of the samples were anomalous for gold.

Samples taken along the hangingwall of the Esmeralda Vein, V-12 through V-52, revealed anomalous values for gold, silver, arsenic, antimony anf mercury (Fig. 5 - 10). Some of these samples were taken near intersections of the Esmeralda Vein with northeasterly striking veins.

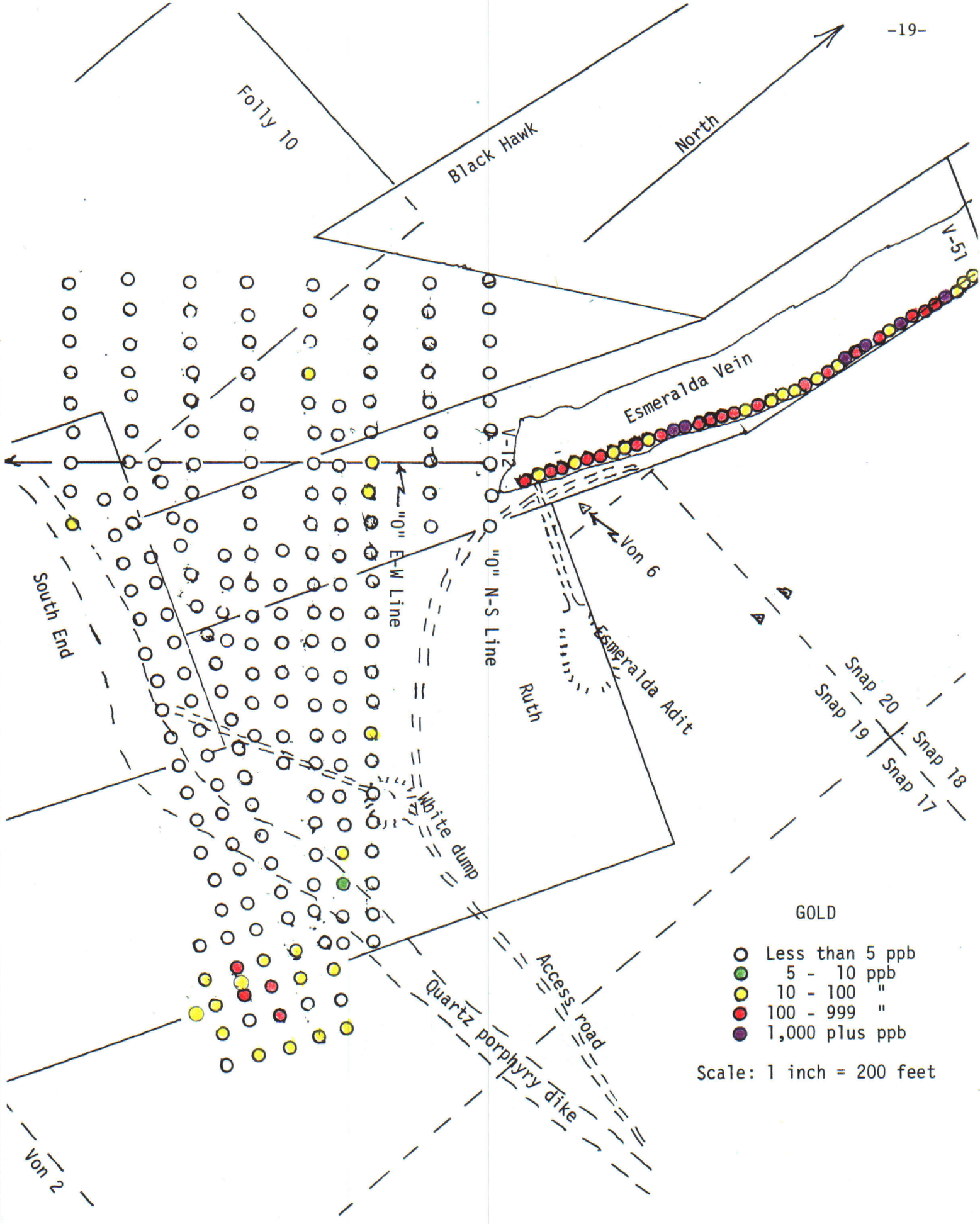


Figure 5. Geochemical map - Gold

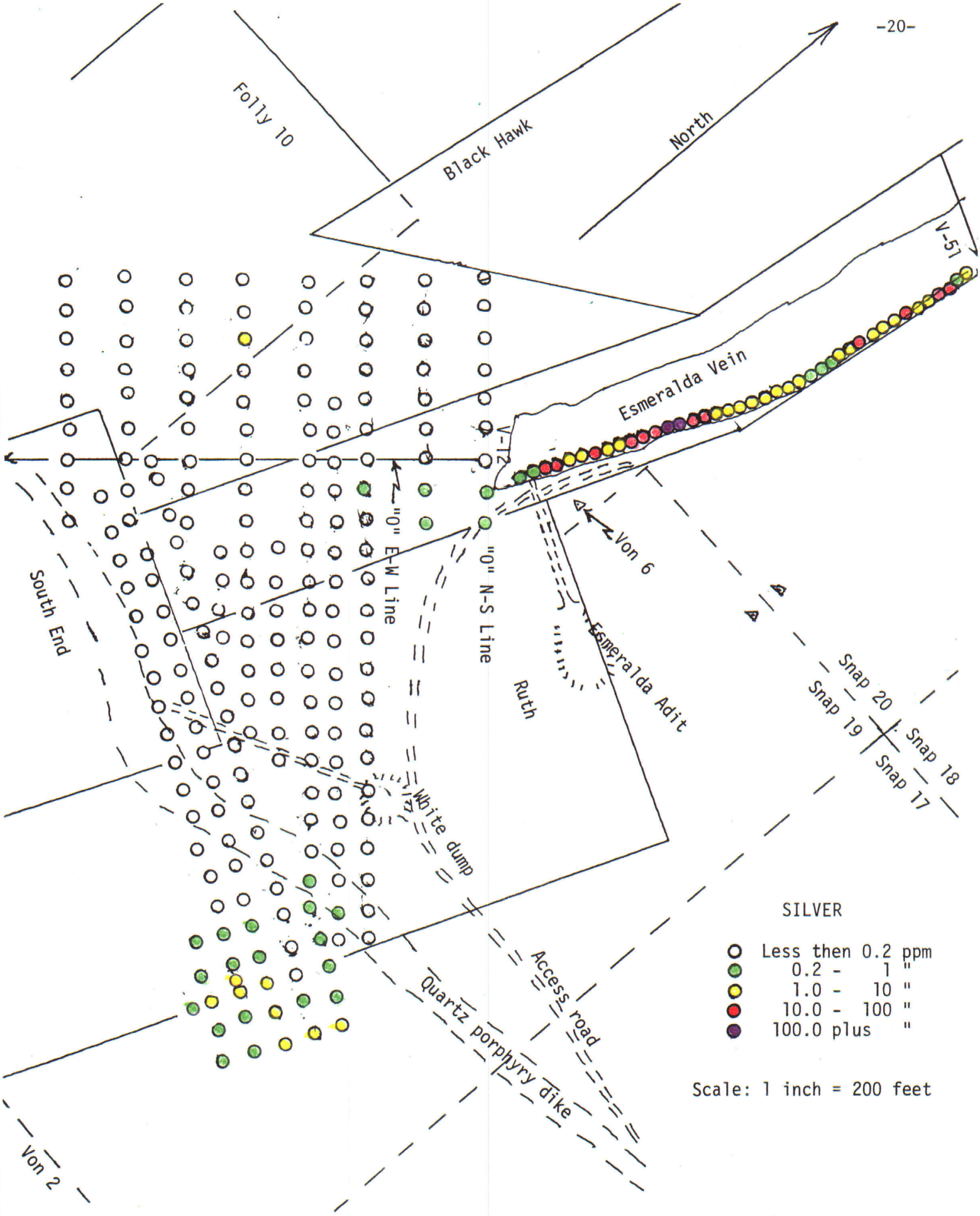


Figure 6. Geochemical map - Silver.

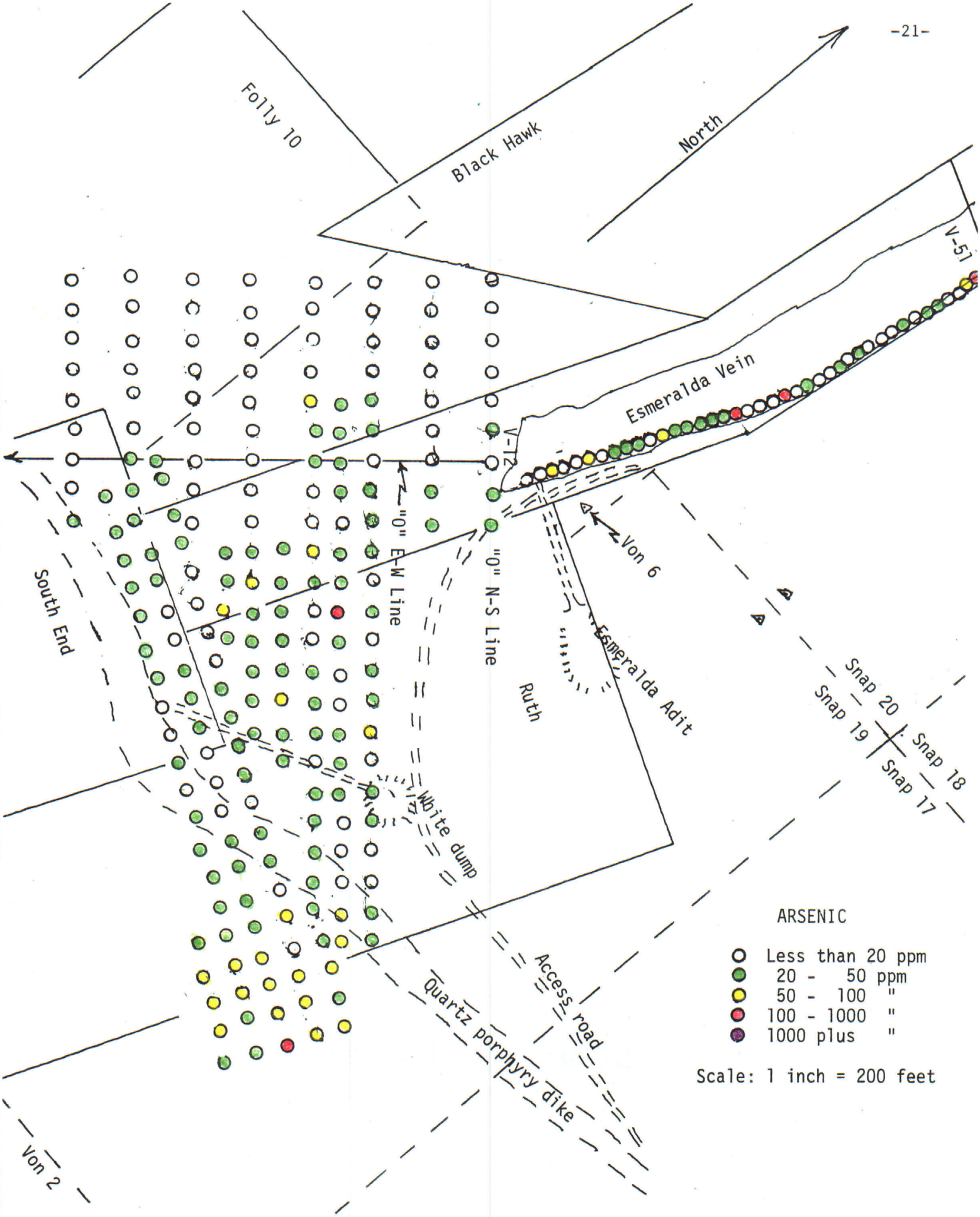


Figure 7. Geochemical map - Arsenic

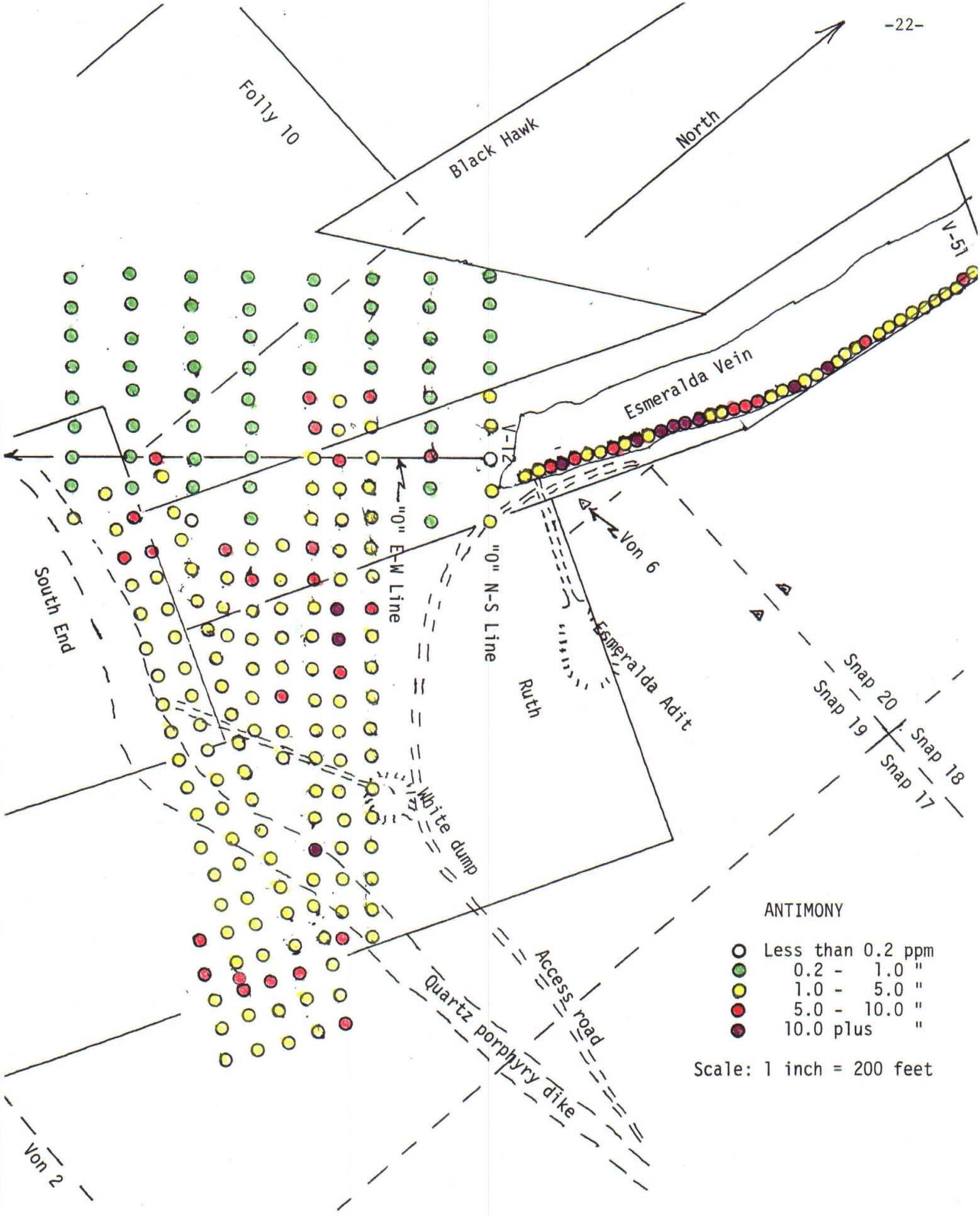


Figure 8. Geochemical map - Antimony

Figure 9. Geochemical map - Mercury

Figure 10. Geochemical map - Tungsten.

DRILLING PROJECT

Drilling Targets

In order to delineate good drilling targets all geological, geochemical, geophysical and historical data were reviewed and an attempt was made to correlate all of the data. Some of the more favorable factors were (1) alteration patterns, (2) the presence of dikes of quartz porphyey, (3) intersections of the Esmeralda vein with the quartz porphyry dikes, (4) structural intersections of the Esmeralda vein with northeasterly striking veins, (5) the presence of the open stope on a ore shoot previously mined, (6) geochemical surveys, and (7) VLF-EM surveys.

Drill Hole A-1

Drill Hole A-1 was drilled from the waste dump of the Esmeralda Adit, in a N 54°W direction to the footwall of the Esmeralda vein, and directly under the full length of the Esmeralda Adit. The hole was inclined at an angle of -45°, and drilled to a total depth of 395 feet. The hole was designed to intersect the Esmeralda vein below the rich ore shoot mined in the eighteen-sixties.

Drill Hole A-2

Drill hole A-2 was also drilled from the dump of the Esmeralda Adit about two feet from A-1, but was drilled in a S 80°W direction and inclined at -45° to a total depth of 302 feet. It was designed to cut the Esmeralda vein just south of the extreme south end of the bold outcrop of the Esmeralda vein where there were small outcrops of quartz porphyey. Unfortunately the hole had to be stopped at 302 feet because of caving. Presumably this was due to brecciation at the intersection of the Esmeralda vein with the northwesterly fault that offsets the vein at this point.

Drill Hole A-3

Drill Hole A-3 was drilled on the ridge at a point 150 feet due south from the extreme south end of the bold outcrop of the Esmeralda vein. It was drilled in a S 7°W direction and inclined -45° to a total depth of of 397 feet. This hole was designed to intersect the Esmeralda vein near the intersection with the quartz porphyry dike, hoping to hit high-grade ore shoots and possible stringer zones of quartz.

Drill Hole A-4

Drill Hole A-4 was drilled at a point 315 feet north of the extreme south end of the bold outcrop of the Esmeralda vein and 50 feet easterly. The hole was drilled in a S 85°W direction and inclined at -45° to a total depth of 125 feet. The hole was designed to intersect the Esmeralda vein at a point near the 98-foot shaft, hoping to hit the extension of the rich ore shoot mined in the eighteen-sixties. It hit good ore.

Drill Hole A-5

Drill Hole A-5 was drilled from the same point as A-4, but was inclined at -65°. It was designed to intersect the Esmeralda vein at a point below A-4 drill hole, and also to possibly cut the northerly extension of the same ore shoot. Instead it hit the vein at 95 feet and mine workings at 97 feet, indicating that the old timers had extended the ore shoot further north than historical data had shown. These workings were approximately 90 feet below the present surface.

Drill Hole A-6

Drill Hole A-6 was drilled from a point on the Folly 10 and South End claim 450 feet S 20°W from the northwest corner of the South End claim. It was drilled in a N 25°E direction and inclined at -47°. It was designed to cut the quartz

porphyry dike at a intersection with several veins beneath a prospect pit, but it intersected a fault zone with heavy clay, and the hole was abandoned at 90 feet.

Drill Hole A-7

Drill Hole A-7 was located 390 feet in a N 20°E direction from the southeast corner of the Ruth claim and 30 feet from its easterly sideline. The hole was drilled in a N 20°E direction and inclined -47° to a total depth of 480 feet. This hole was designed to test the area near the intersection of a highly silicified shear zone (vein?) with the white quartz porhpyey dike. It also passed under a highly altered andesite that was anomalous in gold, silver, arsenic, antimony and mercury.

Drill Hole A-8

Drill Hole 8 was drilled from the same drill pad as A-7 at a point 25 feet to the south. It was drilled in a S 20°W direction and inclined at -45° for a total depth of 260 feet. It was designed to cut the intersection of two veins with a quartz porphyry dike.

Drill Hole A-9

Drill Hole A-9 was drilled at a point 130 feet in a N 35°E direction from the southeast corner of the Esmeralda clain. The hole was drilled in a S 34°W direction and inclined -45° to a total depth of 380 feet. The hole was designed to cut the intersection of the quartz porphyry dike with quartz veinlets beneath a prospect pit near the disvovery pit of the South End claim.

Drill Hole A-10

Drill Hole A-10 was located on the access road 500 feet above the white dump, and approximately 125 feet in a S 55°E direction from the extreme south end

of the bold outcrop of the Esmeralda vein. It was drilled in a N 88°W direction and inclined at -45° to total depth of 300 feet. This hole was designed to intersect the Esmeralda vein at the extreme south end of the vein. The hanging wall of the Esmeralda vein was intersected at 78 feet, and the hole traversed the vein for 92 feet.

Drill Hole A-11

Drill Hole A-11 was located six feet south of Hole A-10. It was drilled in a S 70°W direction and inclined at -45° to a total depth of 300 feet. It was designed to find the southern extension of the Esmeralda vein which had been cut off by a northwesterly fault. The hangingwall of the Esmeralda vein was intersected at 95 feet and was traversed for 98 feet to the footwall of the vein.

Drill Hole A-12

Drill Hole A-12 was located on the access road just below the white dump. The hole was drilled in a S 20°W direction and inclined at -45° to a total depth of 420 feet. It was designed to explore the intersection of the quartz porphyry dike with a highly silicified fracture zone and quartz veins under a highly argillized and silicified zone that was anomalous in gold, silver, arsenic, antimony and mercury, similar to Hole A-7, but at a greater depth.

Drill Hole A-13

Drill Hole A-13 was located on the upper access road about two feet from A-11. It was drilled in a S 70°W direction and inclined -60° to a total depth of 240 feet. The hole lies directly under A-11, and was designed to test the same target but at a lower depth. It intersected the vein at 165 feet.

Drilling

The drilling program was broken into two phases. Gustin Corporation of Elko, Nevada commenced drilling August 14, 1990, and drilled A-1 through A-5 rotary holes for a total of 1,339 feet. They used a TR2-4000 Simco track-mounted, angle, reverse circulation drill rig with a three-man crew, using a 4½ inch tricone bit. Drilling was completed on August 19, 1990. The second phase of drilling was begun on September 21, 1990 by Hackworth Drilling Company of Elko, Nevada using a Cyclone TH-60 drill unit mounted on a diesel powered truck. It was equipped with an Intersoll-Rand air compressor delivering 750 cfm free air at 250 psi and reverse drilling, using a 5¼ inch tricone bit. They drill eight holes, A-6 through A-13 for a total of 2,470 feet. The last hole was drilled on September 30, 1990.

Sampling

Samples were taken every five feet using a Jones 3-tier splitter and a rotary cone wet splitter. Duplicate samples were taken and sent to Chemex Labs, Inc. of Sparks, Nevada. Drill cuttings were logged by Gael M McGibbon and/or Dr. Edmond F. Lawrence, using a binocular microscope. A portion of each sample was saved and stored in plastic sample trays.

DRILL RESULTS

Drill Hole A-1

Hole drilled in a N 54°W direction and inclined -45°. Total Depth 395 feet.

0 - 35 feet	Agrillized andesite	
35 - 60 "	Argillized andesite	with quartz veinlets
60 - 75 "		quartz vein
75 - 130 "	Argillized and silicified andesite	
130 - 150 "	Oxidized and chloritized andesite	
150 - 190 "	Oxidized and chloritized andesite	with quartz veinlets
190 - 245 "	Chloritized andesite	
245 - 260 "	Chloritized andesite	with quartz veinlets
260 - 270 "	Chloritized and argillized andesite	
270 - 368 "		Esmeralda quartz vein
368 - 395 "	Silicified and chloritized andesite	

Assay Results: 275 - 280 0.005 oz/ton gold
325 - 330 0.007 oz/ton gold

The assay values were consistently low throughout the hole, and even in the Esmeralda vein the highest assay value was 0.005 oz/ton gold at 275-280 feet and 0.007 oz/ton gold at 325-330 feet. The hole intersected the vein at 248 feet beneath the top of the open stope, and 188 feet beneath the adit level (Fig. 3).

Drill Hole A-2

Hole drilled in a S 80°W direction and inclined -45°. Total depth 302 feet

0 - 70 feet	Iron-stained andesite	
70 - 85 "		quartz vein
85 - 95 "	Iron-stained andesite	
95 - 100 "		quartz vein with sulfides
100 - 170 "	Argillized andesite	
170 - 225 "	Silicified andesite	
225 - 275 "	Chloritized andesite	
275 - 302 "		quartz vein and andesite

Assay Results: 75-80 0.004 oz/ton gold (The highest assay)

The assay values were consistently low, with the highest value being 0.004 oz/ton gold at 75-80 feet. The hole probably penetrated the brecciation at the intersection of the Esmeralda vein and the northwesterly striking fault, where drilling became difficult.

Drill Hole A-3

Hole drilled in a S 7°W direction and inclined -45°. Total depth 397 feet.

0 - 20 feet	Iron stained andesite	with quartz veinlets
20 - 90 "		quartz vein with andesite
90 - 190 feet	Argillized andesite	
190 - 195 "		quartz vein
195 - 255 "	Chloritized	
255 - 320 "		quartz vein
320 - 340 "		quartz vein with andesite
340 - 397 "	Andesite with quartz and sulfides	

Assay Results: 85 - 90 feet 0.005 oz/ton gold
260 - 265 " 0.005 oz/ton gold
270 - 275 " 0.006 oz/ton gold

The assay values were consistently low throughout the hole. A-3 appears to have cut part of the Esmeralda vein.

Drill Hole A-4

Hole drilled in a S 85°W direction, inclined -45°. Total depth 125 feet.

0 - 65 feet	Iron stained andesite	
65 - 120 "		Esmeralda quartz vein
120 - 125 "	Iron stained	

Assay Results:

65 - 70 feet	0.067 oz/ton gold
70 - 75 "	0.014 oz/ton gold
75 - 80 "	0.006 oz/ton gold
80 - 85 "	0.009 oz/ton gold
85 - 90 "	1.714 oz/ton gold
90 - 95 "	0.750 oz/ton gold
95 - 100 "	0.046 oz/ton gold
100 - 105 "	0.009 oz/ton gold
105 - 110 "	0.008 oz/ton gold
120 - 125 "	0.028 oz/ton gold

From 85 to 100 feet the quartz averaged 0.837 oz/ton gold over fifteen feet. It averaged 0.221 over a width of 60 feet. This material would make ore if enough tonnage was available. The drill hole intersected the Esmeralda vein at 65 feet below the top of the 98-foot shaft (Fig. 11 - 12).

Drill Hole A-5

Hole drilled in a S 85°W direction, inclined -65°. Total depth 120 feet.

0 - 90 feet	Iron stained andesite	
90 - 97 "		Esmeralda quartz vein
97 - 112 "	Cavity, old mine workings	
112 - 118 "		quartz vein
118 - 120 "	Cavity, old mine workings, drill dust up the 98-foot shaft.	

Assay Results:

35 - 40 feet	0.006 oz/ton gold
112 - 118 "	0.010 oz/ton gold

The hole was designed to intersect the Esmeralda vein at 86 feet, but actually it intersected the vein at 90 feet (Fig. 11 - 12).

Drill Hole A-6

Hole drilled in a N 25°E direction, inclined -47°. Total depth 90 feet.

0 - 30 feet	Iron stained andesite	
30 - 40 "		quartz vein
40 - 80 "	Iron stained andesite	
80 - 90 "	Silicified andesite with clay	

Assay Results: All samples showed less than 0.001 oz/ton gold.

This hole intersected a fault zone at 80 feet, and the hole was plugged with heavy clay. The andesite was highly brecciated. Hole terminated at 90 feet.

Drill Hole A-7

Hole drilled in a N 20°E direction, and inclined -47°, Total depth 480 feet.

0 - 35	feet	Iron stained silicified andesite	
35 - 45	"		white quartz
45 - 150	"	Silicified andesite	with quartz stringers
150 - 155	"	Chloritized andesite	
155 - 175	"	Fault gouge	
175 - 250	"	Chloritized andesite	
250 - 255	"		quartz vein
255 - 278	"	Chloritized and silicified andesite	
278 - 345	"	"Diorite" (?)	with quartz stringers
345 - 480	"	Chloritized andesite porphyry	with 10% quartz

Assay Results:	55 - 60	feet	0.004 oz/ton gold
	115 - 120	"	0.011 oz/ton gold
	125 - 130	"	0.004 oz/ton gold
	135 - 140	"	0.004 oz/ton gold
	465 - 470	"	0.004 oz/ton gold

The rock from 290 feet to the bottom of the hole resembled an intrusive and was ubiquitous in regards to sulfides. In places the rock was fairly fresh, and may have been the source of the anomaly on the VLF-EM survey. Hole A-12 also penetrated this rock from the access road below the white dump. Gold was very low, but fairly consistent throughout the hole.

Drill Hole A-8

Hole drilled in a S 20°W direction and inclined -45°. Total depth 260 feet.

0 - 60	Feet	Quartz porphyry intrusive	
60 - 105	"	Argillized andesite	
105 - 140	"	Argillized andesite	with 20% quartz
140 - 170	"	Quartz porphyry intrusive	
170 - 222	"	Argillized andesite	
222 - 232	"		quartz vein
232 - 240	"	Argillized andesite	with quartz stringers
240 - 247	"	Argillized andesite	
247 - 260	"	Silicified andesite	

Assay Results: 230 - 235 feet 0.004 oz/ton gold

The values were very low in this hole, but consistently showed traces of gold.

Drill Hole A-9

Hole drilled in a S 34°W direction and inclined -45° . Total depth 380 feet.

0 - 130	feet	Yellowish white quartz porphyry	one speck of gold at 107 feet
130 - 265	"	Silicified green andesite	
265 - 295	"	Silicified green andesite	with quartz stringers

295 - 380 feet Silicified green andesite

Assay Results:

85 - 90	feet	0.008 oz/ton gold
95 - 100	"	0.007 oz/ton gold
115 - 120	"	0.028 oz/ton gold
135 - 140	'	0.011 oz/ton gold
215 - 220	"	0.008 oz/ton gold
325 - 330	"	0.016 oz/ton gold

This hole was fairly consistent in low values of gold, but these six samples were some what higher.

Drill Hole A-10

Hole drilled in a N 88°W direction and inclined -45°. Total depth 300 feet.

0 - 77	feet	Quartz porphyry intrusive
77 - 85	"	blue quartz
85 - 160	"	white bull quartz
160 - 165	"	Argillized and silicified andesite
165 - 170	"	Argillized and silicified andesite with some vein quartz
170 - 200	"	Argillized and silicified andesite
200 - 260	"	Argillized and silicified andesite with quartz stringers
260 - 300	"	Chloritized and argillized andesite

Assay Results:

70 - 75	feet	0.006 oz/ton gold
75 - 80	"	0.024 oz/ton gold
80 - 85	"	0.033 oz/ton gold
140 - 145	"	0.005 oz/ton gold
145 - 150	"	0.008 oz/ton gold

Two of the samples were within ore range, if enough tonnage was available, and the rest were fairly consistent in low gold values.

Drill Hole A-11

Hole drilled in a S 70°W direction and inclined -45°. Total depth 300 feet.

0 - 8	feet	Argillized and silicified andesite
8 - 37	"	Quartz porphyry intrusive
37 - 50	"	quartz vein
50 - 85	"	Quartz porphyry intrusive
85 - 90	"	Argillized quartz porphyry
90 - 100	"	bluish quartz vein
100 - 125	"	Quartz porphyry with quartz stringers
125 - 188	"	quartz vein, Esmeralda
188 - 260	"	Silicified and argillized andesite
260 - 300	"	Silicified and argillized andesite with quartz stringers

Assay Results:

110 - 115	feet	0.005 oz/ton gold
115 - 120	"	0.006 oz/ton gold
120 - 125	"	0.007 oz/ton gold
125 - 130	"	0.031 oz/ton gold

145 - 150 feet	0.006 oz/ton gold
160 - 165 "	0.006 oz/ton gold
170 - 175 "	0.006 oz/ton gold

There was one good assay, and balance was consistently low.

Drill Hole A-12

Hole drilled in a S 20°W direction and inclined -45°. Total depth 420 feet.

0 - 75 feet	Quartz porphyry dike
75 - 120 "	Silicified and argillized andesite
120 - 130 "	Argillized quartz porphyry dike
130 - 155 "	Silicified andesite dike (?)
155 - 345 "	Chloritized and argillized andesite
345 - 420 "	Silicified andesite

Assay Results:	215 - 220 feet	0.009 oz/ton gold
	225 - 230 "	0.008 oz/ton gold
	355 - 360 "	0.007 oz/ton gold
	415 - 420 "	0.008 oz/ton gold

Some scattered gold values but not as consistent as Drill Hole A-7, which was drilled from the south, higher over this area.

Drill Hole A-13

Hole drilled in a S 70°W direction and inclined -60°. Total depth 240 feet.

0 - 65 feet	Iron stained andesite
65 - 140 "	Silicified andesite
140 - 240 "	iron stained quartz vein, (Esmeralda vein).

Assay Results:	95 - 100 feet	0.029 oz/ton gold
	165 - 170 "	0.006 oz/ton gold
	170 - 175 "	0.014 oz/ton gold
	175 - 180 "	0.013 oz/ton gold

One good assay, and although the balance were low, they were fairly consistent in low gold velues.

SUMMARY

Detailed underground geologic mapping was accomplished by Lawrence (1975), accompanied by underground sampling by Hughes and Lawrence. Geochemical surveys were made over portions of Silver Hill and Middle Hill. VLF-EM surveys were made

over Middle Hill, Last Chance Hill and Silver Hill. Further gologic mapping, emphasizing structural elements, revealed new information on the northwesterly striking fault system, and the spatial relationship of the quartz porphyry intrusives with ore shoots in the district. Correlation of all of the geological, geochemical, geophysical and historical data suggested that the most favorable area for further exploration was around the Esmeralda vein on the Esmeralda, South End and Ruth mining claims. Geochemical surveys were conducted in this area in 1989. Based on all of this data, drilling targets were selected. A drilling program was initiated in August, 1990, and five holes were drilled. A second phase of drilling was done in September, 1990. In all, thirteen holes were drilled for a total of 3,809 feet. Gold was anomalous over the whole area and in all of the holes, but only one hole, A-4, revealed gold values of ore grade. Three 5-foot samples assayed 1.714, 0.750 and 0.046 oz/ton gold, and over the 15-foot interval averaged 0.837 oz/ton gold. Another sample ran 0.067 oz/ton gold. The interval from this sample through the three samples above averaged 0.372 oz/ton gold over a 35 foot width. The interval from 65 to 125 feet averaged 0.221 oz/ton gold. These samples were at the north end of the ore shoot mined in the eighteen-sixties. Sampling along the Esmeralda vein (V-12 through V-52) revealed anomalous zones, some of which were at the intersection of the Esmeralda vein with northeasterly striking veins. There could be ore shoots at these intersections. Some consideration should be given to further drilling along the Esmeralda vein looking for such ore shoots.

Edmond F. Lawrence
Exploration Geologist

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APPENDIX 1

Chemex Labs Ltd.

Analytical Chemists * Geochemists * Registered Assayers
994 West Glendale Ave., Suite 7, Sparks,
Nevada, U.S.A. 89431
PHONE: 702-356-5395

To: VAN HEFFTEN, ALEXANDER **

3898 WASHINGTON ST.
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Project :
Comments:

Page Number : 1
Total Pages : 4
Invoice Date: 4-SEP-90
Invoice No. : I-9021783
P.O. Number :

CERTIFICATE OF ANALYSIS A9021783

SAMPLE DESCRIPTION	PREP CODE		Au oz/T
A-1 000-005	208	294	< 0.001
A-1 005-010	208	294	< 0.001
A-1 010-015	208	294	< 0.001
A-1 015-020	208	294	< 0.001
A-1 020-025	208	294	< 0.001
A-1 025-030	208	294	0.001
A-1 030-035	208	294	< 0.001
A-1 035-040	208	294	< 0.001
A-1 040-045	208	294	0.001
A-1 045-050	208	294	0.001
A-1 050-055	208	294	0.001
A-1 055-060	208	294	0.001
A-1 060-065	208	294	0.001
A-1 065-070	208	294	0.003
A-1 070-075	208	294	< 0.001
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A-1 185-190	208	294	0.001
A-1 190-195	208	294	< 0.001
A-1 195-200	208	294	< 0.001

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A-1 200-205	208	294	< 0.001
A-1 205-210	208	294	< 0.001
A-1 210-215	208	294	< 0.001
A-1 215-220	208	294	0.001
A-1 220-225	208	294	< 0.001
A-1 225-230	208	294	0.001
A-1 230-235	208	294	< 0.001
A-1 235-240	208	294	0.001
A-1 240-245	208	294	< 0.001
A-1 245-250	208	294	0.001
A-1 250-255	208	294	0.001
A-1 255-260	208	294	0.001
A-1 260-265	208	294	0.001
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A-1 305-310	208	294	0.001
A-1 310-315	208	294	0.001
A-1 315-320	208	294	0.001
A-1 320-325	208	294	0.002
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A-1 335-340	208	294	0.001
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A-1 350-355	208	294	0.001
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A-1 380-385	208	294	0.001
A-1 385-390	208	294	0.001
A-1 390-395	208	294	0.002
A-2 000-005	208	294	0.001

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A-2 010-015	208	294	0.001
A-2 015-020	208	294	0.001
A-2 020-025	208	294	0.001
A-2 025-030	208	294	0.001
A-2 030-035	208	294	< 0.001
A-2 035-040	208	294	0.001
A-2 040-045	208	294	0.001
A-2 045-050	208	294	0.002
A-2 050-055	208	294	0.001
A-2 055-060	208	294	0.001
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A-2 065-070	208	294	0.001
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A-2 080-085	208	294	0.001
A-2 085-090	208	294	0.001
A-2 090-095	208	294	0.001
A-2 095-100	208	294	0.002
A-2 100-105	208	294	0.001
A-2 105-110	208	294	< 0.001
A-2 110-115	208	294	< 0.001
A-2 115-120	208	294	< 0.001
A-2 120-125	208	294	< 0.001
A-2 125-130	208	294	< 0.001
A-2 130-135	208	294	< 0.001
A-2 135-140	208	294	< 0.001
A-2 140-145	208	294	< 0.001
A-2 145-150	208	294	< 0.001
A-2 150-155	208	294	< 0.001
A-2 155-160	208	294	< 0.001
A-2 160-165	208	294	< 0.001
A-2 165-170	208	294	0.001
A-2 170-175	208	294	< 0.001
A-2 175-180	208	294	< 0.001
A-2 180-185	208	294	< 0.001
A-2 185-190	208	294	0.001
A-2 190-195	208	294	< 0.001
A-2 195-200	208	294	0.001
A-2 200-205	208	294	0.001

CERTIFICATION: 

Chemex Labs Ltd.

Analytical Chemists * Geochemists * Registered Assayers
994 West Glendale Ave., Suite 7, Sparks,
Nevada, U.S.A. 89431
PHONE: 702-356-5395

To: VAN HEFFTEN, ALEXANDER **

3898 WASHINGTON ST.
SAN FRANCISCO, CALIFORNIA
94118

Project :
Comments:

Invoice Date: 4-SEP-90
Invoice No. : I-9021783
P.O. Number :

CERTIFICATE OF ANALYSIS A9021783

SAMPLE DESCRIPTION	PREP CODE		Au oz/T
A-2 205-210	208	294	< 0.001
A-2 210-215	208	294	< 0.001
A-2 215-220	208	294	< 0.001
A-2 220-225	208	294	< 0.001
A-2 225-230	208	294	< 0.001
A-2 230-235	208	294	< 0.001
A-2 235-240	208	294	< 0.001
A-2 240-245	208	294	< 0.001
A-2 245-250	208	294	< 0.001
A-2 250-255	208	294	< 0.001
A-2 255-260	208	294	< 0.001
A-2 260-265	208	294	< 0.001
A-2 265-270	208	294	< 0.001
A-2 270-275	208	294	< 0.001
A-2 275-280	208	294	< 0.001
A-2 280-285	208	294	0.001
A-2 285-290	208	294	0.002
A-2 290-295	208	294	0.003
A-2 295-300	208	294	0.003

CERTIFICATION: _____

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Chemex Labs Ltd.

Analytical Chemists * Geochemists * Registered Assayers
994 West Glendale Ave., Suite 7, Sparks,
Nevada, U.S.A. 89431
PHONE: 702-356-5395

To: VAN HEFFTEN, ALEXANDER **

3898 WASHINGTON ST.
SAN FRANCISCO, CALIFORNIA
94118

Project :
Comments:

Invoice Date: 5-SEP-90
Invoice No. : I-9021784
P.O. Number :

CERTIFICATE OF ANALYSIS A9021784

SAMPLE DESCRIPTION	PREP CODE		Au oz/T
A-3 000-005	208	294	< 0.001
A-3 005-010	208	294	0.001
A-3 010-015	208	294	0.001
A-3 015-020	208	294	0.001
A-3 020-025	208	294	0.002
A-3 025-030	208	294	0.001
A-3 030-035	208	294	0.001
A-3 035-040	208	294	0.001
A-3 040-045	208	294	0.002
A-3 045-050	208	294	0.002
A-3 050-055	208	294	0.001
A-3 055-060	208	294	0.001
A-3 060-065	208	294	0.002
A-3 065-070	208	294	0.002
A-3 070-075	208	294	0.001
A-3 075-080	208	294	0.001
A-3 080-085	208	294	0.002
A-3 085-090	208	294	0.005
A-3 090-095	208	294	0.002
A-3 095-100	208	294	0.001
A-3 100-105	208	294	0.001
A-3 105-110	208	294	0.001
A-3 110-115	208	294	0.001
A-3 115-120	208	294	0.001
A-3 120-125	208	294	0.003
A-3 125-130	208	294	0.002
A-3 130-135	208	294	0.001
A-3 135-140	208	294	0.001
A-3 140-145	208	294	0.003
A-3 145-150	208	294	0.002
A-3 150-155	208	294	0.001
A-3 155-160	208	294	0.001
A-3 160-165	208	294	0.001
A-3 165-170	208	294	0.001
A-3 170-175	208	294	0.001
A-3 175-180	208	294	0.001
A-3 180-185	208	294	0.002
A-3 185-190	208	294	0.002
A-3 190-195	208	294	0.005
A-3 195-200	208	294	0.004

CERTIFICATION: _____

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PHONE: 702-356-5395

To: VAN HEFFTEN, ALEXANDER **

3898 WASHINGTON ST.
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Project :
Comments:

Page Number : 2
Total Pages : 3
Invoice Date: 5-SEP-90
Invoice No. : I-9021784
P.O. Number :

CERTIFICATE OF ANALYSIS A9021784

SAMPLE DESCRIPTION	PREP CODE		Au oz/T
A-3 200-205	208	294	0.002
A-3 205-210	208	294	0.002
A-3 210-215	208	294	0.001
A-3 215-220	208	294	0.001
A-3 220-225	208	294	0.001
A-3 225-230	208	294	0.001
A-3 230-235	208	294	0.001
A-3 235-240	208	294	0.001
A-3 240-245	208	294	0.002
A-3 245-250	208	294	0.002
A-3 250-255	208	294	0.003
A-3 255-260	208	294	0.004
A-3 260-265	208	294	0.005
A-3 265-270	208	294	0.003
A-3 270-275	208	294	0.006
A-3 275-280	208	294	0.001
A-3 280-285	208	294	0.001
A-3 285-290	208	294	0.002
A-3 290-295	208	294	0.002
A-3 295-300	208	294	0.002
A-3 300-305	208	294	0.002
A-3 305-310	208	294	0.001
A-3 310-315	208	294	0.001
A-3 315-320	208	294	0.001
A-3 320-325	208	294	0.001
A-3 325-330	208	294	0.001
A-3 330-335	208	294	0.002
A-3 335-340	208	294	0.002
A-3 340-345	208	294	0.002
A-3 345-350	208	294	0.003
A-3 350-355	208	294	0.001
A-3 355-360	208	294	< 0.001
A-3 360-365	208	294	0.001
A-3 365-370	208	294	0.001
A-3 370-375	208	294	0.001
A-3 375-380	208	294	0.001
A-3 380-385	208	294	0.001
A-3 385-390	208	294	0.001
A-3 390-395	208	294	0.001
A-3 395-400	208	294	0.002

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PHONE: 702-356-5395

To: VAN HEFFTEN, ALEXANDER **

3898 WASHINGTON ST.
SAN FRANCISCO, CALIFORNIA
94118

Project :
Comments:

Invoice Date: 5-SEP-90
Invoice No. : I-9021784
P.O. Number :

CERTIFICATE OF ANALYSIS A9021784

SAMPLE DESCRIPTION	PREP CODE		Au oz/T
A-4 000-005	208	294	0.004
A-4 005-010	208	294	0.001
A-4 010-015	208	294	0.001
A-4 015-020	208	294	0.001
A-4 020-025	208	294	0.001
A-4 025-030	208	294	0.001
A-4 030-035	208	294	0.001
A-4 035-040	208	294	0.001
A-4 040-045	208	294	0.001
A-4 045-050	208	294	0.001
A-4 050-055	208	294	0.001
A-4 055-060	208	294	0.001
A-4 060-065	208	294	0.001
A-4 065-070	208	294	0.067
A-4 070-075	208	294	0.014
A-4 075-080	208	294	0.006
A-4 080-085	208	294	0.009
A-4 085-090	208	294	1.714
A-4 090-095	208	294	0.750
A-4 095-100	208	294	0.046
A-4 100-105	208	294	0.009
A-4 105-110	208	294	0.008
A-4 110-115	208	294	0.003
A-4 115-120	208	294	0.003
A-4 120-125	208	294	0.028
A-5 010-015	208	294	0.004
A-5 020-025	208	294	0.001
A-5 035-040	208	294	0.006
A-5 090-095	208	294	0.001
A-5 095-100	208	294	0.001
A-5 110-115	208	294	0.010

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Nevada, U.S.A. 89431
PHONE: 702-356-5395

To: VAN HEFFTEN, ALEXANDER **

3898 WASHINGTON ST.
SAN FRANCISCO, CALIFORNIA
94118

Project :
Comments: 2CC: DR. EDMOND F. LAWERENCE

Invoice Date: 8-OCT-90
Invoice No. : I-9024466
P.O. Number :

CERTIFICATE OF ANALYSIS A9024466

SAMPLE DESCRIPTION	PREP CODE		Au oz/T
A-6 005-010	208	294	< 0.001
A-6 015-020	208	294	< 0.001
A-6 025-030	208	294	< 0.001
A-6 035-040	208	294	< 0.001
A-6 045-050	208	294	< 0.001
A-6 055-060	208	294	< 0.001
A-6 065-070	208	294	< 0.001
A-6 075-080	208	294	< 0.001
A-6 085-090	208	294	< 0.001
A-7 005-010	208	294	< 0.001
A-7 015-020	208	294	< 0.001
A-7 025-030	208	294	0.003
A-7 035-040	208	294	0.001
A-7 045-050	208	294	0.001
A-7 055-060	208	294	0.004
A-7 065-070	208	294	0.001
A-7 075-080	208	294	< 0.001
A-7 085-090	208	294	0.001
A-7 095-100	208	294	0.001
A-7 105-110	208	294	0.002
A-7 115-120	208	294	0.011
A-7 125-130	208	294	0.004
A-7 135-140	208	294	0.004
A-7 145-150	208	294	< 0.001
A-7 155-160	208	294	< 0.001
A-7 165-170	208	294	< 0.001
A-7 175-180	208	294	< 0.001
A-7 185-190	208	294	< 0.001
A-7 195-200	208	294	< 0.001
A-7 205-210	208	294	0.001
A-7 215-220	208	294	0.002
A-7 225-230	208	294	0.003
A-7 235-240	208	294	0.003
A-7 245-250	208	294	0.005
A-7 255-260	208	294	0.004
A-7 265-270	208	294	0.003
A-7 275-280	208	294	< 0.001
A-7 285-290	208	294	0.001
A-7 295-300	208	294	0.002
A-7 305-310	208	294	0.001

CERTIFICATION:

Chemex Labs Ltd.

Analytical Chemists * Geochemists * Registered Assayers
994 West Glendale Ave., Suite 7, Sparks,
Nevada, U.S.A. 89431
PHONE: 702-356-5395

To: VAN HEFFTEN, ALEXANDER **

3898 WASHINGTON ST.
SAN FRANCISCO, CALIFORNIA
94118

Project :
Comments: 2CC: DR. EDMOND F. LAWERENCE

Invoice Date: 8-OCT-90
Invoice No. : I-9024466
P.O. Number :

CERTIFICATE OF ANALYSIS A9024466

SAMPLE DESCRIPTION	PREP CODE		Au oz/T
A-7 315-320	208	294	0.001
A-7 325-330	208	294	0.001
A-7 335-340	208	294	0.001
A-7 345-350	208	294	0.001
A-7 355-360	208	294	< 0.001
A-7 365-370	208	294	0.001
A-7 375-380	208	294	0.001
A-7 385-390	208	294	0.001
A-7 395-400	208	294	0.002
A-7 405-410	208	294	0.002
A-7 415-420	208	294	0.001
A-7 425-430	208	294	< 0.001
A-7 435-440	208	294	< 0.001
A-7 445-450	208	294	< 0.001
A-7 455-460	208	294	0.002
A-7 465-470	208	294	0.004
A-7 475-480	208	294	< 0.001
A-8 000-005	208	294	< 0.001
A-8 005-010	208	294	< 0.001
A-8 010-015	208	294	< 0.001
A-8 015-020	208	294	< 0.001
A-8 020-025	208	294	0.001
A-8 025-030	208	294	0.001
A-8 030-035	208	294	0.001
A-8 035-040	208	294	0.001
A-8 040-045	208	294	< 0.001
A-8 045-050	208	294	0.001
A-8 050-055	208	294	0.001
A-8 055-060	208	294	< 0.001
A-8 065-070	208	294	< 0.001
A-8 075-080	208	294	0.002
A-8 085-090	208	294	0.002
A-8 095-100	208	294	0.002
A-8 105-110	208	294	0.001
A-8 115-120	208	294	0.001
A-8 125-130	208	294	< 0.001
A-8 135-140	208	294	0.001
A-8 140-145	208	294	0.001
A-8 145-150	208	294	0.002
A-8 150-155	208	294	< 0.001

CERTIFICATION:

Chemex Labs Ltd.

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994 West Glendale Ave., Suite 7, Sparks,
Nevada, U.S.A. 89431
PHONE: 702-356-5395

To: VAN HEFFTEN, ALEXANDER **

3898 WASHINGTON ST.
SAN FRANCISCO, CALIFORNIA
94118

Project :
Comments: 2CC: DR. EDMOND F. LAWERENCE

Invoice Date: 8-OCT-90
Invoice No. : I-9024466
P.O. Number :

CERTIFICATE OF ANALYSIS A9024466

SAMPLE DESCRIPTION	PREP CODE		Au oz/T
A-8 155-160	208	294	0.001
A-8 160-165	208	294	0.001
A-8 165-170	208	294	0.002
A-8 175-180	208	294	0.001
A-8 185-190	208	294	0.001
A-8 195-200	208	294	0.001
A-8 205-210	208	294	0.001
A-8 215-220	208	294	< 0.001
A-8 220-225	208	294	0.001
A-8 225-230	208	294	0.002
A-8 230-235	208	294	0.004
A-8 235-240	208	294	0.002
A-8 240-245	208	294	0.001
A-8 245-250	208	294	0.002
A-8 250-255	208	294	0.001
A-8 255-260	208	294	0.001

CERTIFICATION:

Chemex Labs Ltd.

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994 West Glendale Ave., Suite 7, Sparks,
Nevada, U.S.A. 89431
PHONE: 702-356-5395

To: VAN HEFFTEN, ALEXANDER **

3898 WASHINGTON ST.
SAN FRANCISCO, CALIFORNIA
94118

Project :
Comments: 2CC: DR. EDMOND F. LAWRENCE

Invoice Date: 10-OCT-90
Invoice No. : I-9024467
P.O. Number :

CERTIFICATE OF ANALYSIS A9024467

SAMPLE DESCRIPTION	PREP CODE		Au oz/T
A-9 000-005	208	294	< 0.001
A-9 005-010	208	294	< 0.001
A-9 010-015	208	294	< 0.001
A-9 015-020	208	294	< 0.001
A-9 020-025	208	294	< 0.001
A-9 025-030	208	294	< 0.001
A-9 030-035	208	294	< 0.001
A-9 035-040	208	294	< 0.001
A-9 040-045	208	294	< 0.001
A-9 045-050	208	294	< 0.001
A-9 050-055	208	294	0.003
A-9 055-060	208	294	0.001
A-9 060-065	208	294	0.003
A-9 065-070	208	294	< 0.001
A-9 070-075	208	294	< 0.001
A-9 075-080	208	294	0.001
A-9 080-085	208	294	0.001
A-9 085-090	208	294	0.008
A-9 090-095	208	294	0.003
A-9 095-100	208	294	0.007
A-9 100-105	208	294	< 0.001
A-9 105-110	208	294	0.002
A-9 110-115	208	294	0.003
A-9 115-120	208	294	0.028
A-9 120-125	208	294	0.001
A-9 125-130	208	294	0.001
A-9 135-140	208	294	0.011
A-9 145-150	208	294	0.003
A-9 155-160	208	294	0.001
A-9 165-170	208	294	0.001
A-9 175-180	208	294	0.001
A-9 180-185	208	294	0.002
A-9 185-190	208	294	< 0.001
A-9 195-200	208	294	< 0.001
A-9 205-210	208	294	0.002
A-9 215-220	208	294	0.008
A-9 225-230	208	294	< 0.001
A-9 235-240	208	294	0.001
A-9 245-250	208	294	0.001
A-9 255-260	208	294	< 0.001

CERTIFICATION: Kendall M Adams

Chemex Labs Ltd.

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994 West Glendale Ave., Suite 7, Sparks,
Nevada, U.S.A. 89431
PHONE: 702-356-5395

To: VAN HEFFTEN, ALEXANDER **

3898 WASHINGTON ST.
SAN FRANCISCO, CALIFORNIA
94118

Project :
Comments: 2CC: DR. EDMOND F. LAWRENCE

Invoice Date: 10-OCT-90
Invoice No. : I-9024467
P.O. Number :

CERTIFICATE OF ANALYSIS A9024467

SAMPLE DESCRIPTION	PREP CODE		Au oz/T
A-9 265-270	208	294	< 0.001
A-9 275-280	208	294	< 0.001
A-9 285-290	208	294	< 0.001
A-9 295-300	208	294	< 0.001
A-9 305-310	208	294	< 0.001
A-9 315-320	208	294	< 0.001
A-9 325-330	208	294	0.016
A-9 335-340	208	294	< 0.001
A-9 345-350	208	294	0.002
A-9 355-360	208	294	0.001
A-9 365-370	208	294	< 0.001
A-9 375-380	208	294	< 0.001
A-10 000-005	208	294	< 0.001
A-10 005-010	208	294	< 0.001
A-10 010-015	208	294	< 0.001
A-10 015-020	208	294	< 0.001
A-10 020-025	208	294	< 0.001
A-10 025-030	208	294	< 0.001
A-10 030-035	208	294	0.001
A-10 035-040	208	294	0.001
A-10 040-045	208	294	< 0.001
A-10 045-050	208	294	0.002
A-10 050-055	208	294	< 0.001
A-10 055-060	208	294	< 0.001
A-10 060-065	208	294	< 0.001
A-10 065-070	208	294	0.001
A-10 070-075	208	294	0.006
A-10 075-080	208	294	0.024
A-10 080-085	208	294	0.033
A-10 085-090	208	294	0.003
A-10 090-095	208	294	0.003
A-10 095-100	208	294	0.002
A-10 100-105	208	294	0.002
A-10 105-110	208	294	0.002
A-10 110-115	208	294	0.003
A-10 115-120	208	294	0.002
A-10 120-125	208	294	0.002
A-10 125-130	208	294	0.001
A-10 130-135	208	294	0.001
A-10 135-140	208	294	0.010

CERTIFICATION: Sandra M Adams

Chemex Labs Ltd.

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Nevada, U.S.A. 89431
PHONE: 702-356-5395

To: VAN HEFFTEN, ALEXANDER **

3898 WASHINGTON ST.
SAN FRANCISCO, CALIFORNIA
94118

Project :
Comments: 2CC: DR. EDMOND F. LAWRENCE

Invoice Date: 10-OCT-90
Invoice No. : I-9024467
P.O. Number :

CERTIFICATE OF ANALYSIS A9024467

SAMPLE DESCRIPTION	PREP CODE		Au oz/T
A-10 140-145	208	294	0.005
A-10 145-150	208	294	0.008
A-10 150-155	208	294	0.002
A-10 155-160	208	294	0.001
A-10 160-165	208	294	< 0.001
A-10 165-170	208	294	0.001
A-10 170-175	208	294	0.001
A-10 175-180	208	294	0.001
A-10 180-185	208	294	0.001
A-10 185-190	208	294	< 0.001
A-10 190-195	208	294	< 0.001
A-10 195-200	208	294	0.001
A-10 200-205	208	294	0.002
A-10 205-210	208	294	0.001
A-10 215-220	208	294	0.003
A-10 225-230	208	294	0.001
A-10 235-240	208	294	0.001
A-10 245-250	208	294	0.001
A-10 255-260	208	294	0.003
A-10 265-270	208	294	0.001
A-10 275-280	208	294	0.002
A-10 285-290	208	294	0.001
A-10 295-300	208	294	0.001

CERTIFICATION: Sandra M Adam

Chemex Labs Ltd.

Analytical Chemists * Geochemists * Registered Assayers
994 West Glendale Ave., Suite 7, Sparks,
Nevada, U.S.A. 89431
PHONE: 702-356-5395

To: VAN HEFFTEN, ALEXANDER **

3898 WASHINGTON ST.
SAN FRANCISCO, CALIFORNIA
94118

Project :
Comments: 2CC: DR. EDMOND F. LAWRENCE

Invoice Date: 11-OCT-90
Invoice No. : I-9024468
P.O. Number :

CERTIFICATE OF ANALYSIS A9024468

SAMPLE DESCRIPTION	PREP CODE		Au oz/T
A-11 000-005	208	294	0.002
A-11 005-010	208	294	0.001
A-11 010-015	208	294	0.001
A-11 015-020	208	294	0.001
A-11 020-025	208	294	0.001
A-11 025-030	208	294	0.001
A-11 030-035	208	294	0.001
A-11 035-040	208	294	< 0.001
A-11 040-045	208	294	0.001
A-11 045-050	208	294	0.001
A-11 050-055	208	294	0.001
A-11 055-060	208	294	< 0.001
A-11 060-065	208	294	< 0.001
A-11 065-070	208	294	< 0.001
A-11 070-075	208	294	< 0.001
A-11 075-080	208	294	< 0.001
A-11 080-085	208	294	0.001
A-11 085-090	208	294	0.001
A-11 090-095	208	294	0.001
A-11 095-100	208	294	0.002
A-11 100-105	208	294	0.001
A-11 105-110	208	294	0.001
A-11 110-115	208	294	0.005
A-11 115-120	208	294	0.006
A-11 120-125	208	294	0.007
A-11 125-130	208	294	0.031
A-11 130-135	208	294	0.001
A-11 135-140	208	294	0.003
A-11 140-145	208	294	0.002
A-11 145-150	208	294	0.006
A-11 150-155	208	294	0.003
A-11 155-160	208	294	0.003
A-11 160-165	208	294	0.006
A-11 165-170	208	294	0.003
A-11 170-175	208	294	0.006
A-11 175-180	208	294	0.002
A-11 180-185	208	294	0.002
A-11 185-190	208	294	0.004
A-11 195-200	208	294	0.001
A-11 205-210	208	294	0.001

CERTIFICATION: Sandra M Adam

Chemex Labs Ltd.

Analytical Chemists * Geochemists * Registered Assayers
994 West Glendale Ave., Suite 7, Sparks,
Nevada, U.S.A. 89431
PHONE: 702-356-5395

To: VAN HEFFTEN, ALEXANDER **

3898 WASHINGTON ST.
SAN FRANCISCO, CALIFORNIA
94118

Project :
Comments: 2CC: DR. EDMOND F. LAWRENCE

Invoice Date: 11-OCT-90
Invoice No. : I-9024468
P.O. Number :

CERTIFICATE OF ANALYSIS A9024468

SAMPLE DESCRIPTION	PREP CODE		Au oz/T
A-11 215-220	208	294	0.001
A-11 225-230	208	294	0.002
A-11 235-240	208	294	0.001
A-11 245-250	208	294	< 0.001
A-11 255-260	208	294	0.001
A-11 265-270	208	294	0.001
A-11 275-280	208	294	0.001
A-11 285-290	208	294	0.002
A-11 295-300	208	294	0.002
A-12 000-005	208	294	0.001
A-12 005-010	208	294	0.001
A-12 010-015	208	294	< 0.001
A-12 015-020	208	294	0.001
A-12 020-025	208	294	< 0.001
A-12 025-030	208	294	< 0.001
A-12 030-035	208	294	0.001
A-12 035-040	208	294	0.001
A-12 040-045	208	294	0.001
A-12 045-050	208	294	0.001
A-12 050-055	208	294	0.001
A-12 055-060	208	294	0.001
A-12 060-065	208	294	0.001
A-12 065-070	208	294	0.001
A-12 075-080	208	294	0,001
A-12 085-090	208	294	< 0.001
A-12 095-100	208	294	< 0.001
A-12 105-110	208	294	< 0.001
A-12 115-120	208	294	< 0.001
A-12 120-125	208	294	< 0.001
A-12 125-130	208	294	< 0.001
A-12 130-135	208	294	< 0.001
A-12 135-140	208	294	< 0.001
A-12 140-145	208	294	< 0.001
A-12 145-150	208	294	< 0.001
A-12 150-155	208	294	0.001
A-12 155-160	208	294	< 0.001
A-12 165-170	208	294	< 0.001
A-12 175-180	208	294	0.003
A-12 185-190	208	294	< 0.001
A-12 195-200	208	294	< 0.001

CERTIFICATION: Sandra M Adam

Chemex Labs Ltd.

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994 West Glendale Ave., Suite 7, Sparks,
Nevada, U.S.A. 89431
PHONE: 702-356-5395

To: VAN HEFFTEN, ALEXANDER **

3898 WASHINGTON ST.
SAN FRANCISCO, CALIFORNIA
94118

Project :
Comments: 2CC: DR. EDMOND F. LAWRENCE

Invoice Date: 11-OCT-90
Invoice No. : I-9024468
P.O. Number :

CERTIFICATE OF ANALYSIS A9024468

SAMPLE DESCRIPTION	PREP CODE		Au oz/T
A-12 205-210	208	294	0.002
A-12 215-220	208	294	0.009
A-12 225-230	208	294	0.008
A-12 235-240	208	294	0.001
A-12 240-245	208	294	0.001
A-12 245-250	208	294	0.001
A-12 255-260	208	294	< 0.001
A-12 265-270	208	294	0.001
A-12 270-275	208	294	0.003
A-12 275-280	208	294	0.001
A-12 285-290	208	294	0.004
A-12 295-300	208	294	< 0.001
A-12 305-310	208	294	0.001
A-12 315-320	208	294	0.001
A-12 325-330	208	294	< 0.001
A-12 335-340	208	294	0.001
A-12 345-350	208	294	< 0.001
A-12 355-360	208	294	0.007
A-12 365-370	208	294	0.001
A-12 375-380	208	294	0.003
A-12 385-390	208	294	0.001
A-12 395-400	208	294	< 0.001
A-12 405-410	208	294	< 0.001
A-12 415-420	208	294	0.008
A-13 005-010	208	294	0.002
A-13 015-020	208	294	0.001
A-13 025-030	208	294	0.001
A-13 035-040	208	294	< 0.001
A-13 045-050	208	294	0.002
A-13 055-060	208	294	0.002
A-13 065-070	208	294	0.001
A-13 075-080	208	294	0.001
A-13 085-090	208	294	0.001
A-13 095-100	208	294	0.029
A-13 100-105	208	294	0.001
A-13 105-110	208	294	0.001
A-13 115-120	208	294	0.001
A-13 125-130	208	294	0.003
A-13 135-140	208	294	0.001
A-13 140-145	208	294	0.001

CERTIFICATION: Kendall M Adams

Chemex Labs Ltd.

Analytical Chemists * Geochemists * Registered Assayers
994 West Glendale Ave., Suite 7, Sparks,
Nevada, U.S.A. 89431
PHONE: 702-356-5395

To: VAN HEFFTEN, ALEXANDER **

3898 WASHINGTON ST.
SAN FRANCISCO, CALIFORNIA
94118

Project :
Comments: 2CC: DR. EDMOND F. LAWRENCE

Invoice Date: 11-OCT-90
Invoice No. : I-9024468
P.O. Number :

CERTIFICATE OF ANALYSIS A9024468

SAMPLE DESCRIPTION	PREP CODE		Au oz/T
A-13 145-150	208	294	0.001
A-13 150-155	208	294	0.002
A-13 155-160	208	294	0.001
A-13 160-165	208	294	0.002
A-13 165-170	208	294	0.006
A-13 170-175	208	294	0.014
A-13 175-180	208	294	0.013
A-13 180-185	208	294	0.004
A-13 185-190	208	294	0.003
A-13 190-195	208	294	0.001
A-13 195-200	208	294	0.001
A-13 200-205	208	294	0.002
A-13 210-215	208	294	0.001
A-13 215-220	208	294	0.002
A-13 220-225	208	294	0.002
A-13 225-230	208	294	0.001
A-13 230-235	208	294	0.002
A-13 235-240	208	294	0.002

CERTIFICATION: Sandra M. Adam

APPENDIX 2

Chemex Labs Inc.
Analytical Chemists * Geochemists * Registered Assayers
994 WEST GLENDALE AVE., SUITE 7, SPARKS,
NEVADA, U.S.A. 89431
PHONE (702) 356-5395

To: GREAT BASIN EXPLORATION CO.
3898 WASHINGTON ST.
SAN FRANCISCO, CALIFORNIA
94118
Project :
Comments: ATTN: ALEXANDER VON HAFFTEN CC: EDMOND LAWRENCE

Date : 18-SEP-89
Invoice # : I-8925007
P.O. # : NONE

CERTIFICATE OF ANALYSIS A8925007

SAMPLE DESCRIPTION	PREP CODE		Au ppb FA+AA	Ag ppm Aqua R	As ppm	Hg ppb	Sb ppm	W ppm	Au FA oz/T		
R-01	205	--	< 5	< 0.2	80	1200	4.4	15	-----		
R-02	205	--	< 5	< 0.2	19	380	1.4	4	-----		
R-03	205	--	< 5	< 0.2	23	1400	1.0	5	-----		
R-04	205	--	< 5	< 0.2	230	820	8.8	16	-----		
R-05	205	--	< 5	< 0.2	19	1400	2.2	9	-----		
R-06	205	--	< 5	< 0.2	16	2100	0.8	3	-----		
R-07	205	--	< 5	< 0.2	20	2400	2.0	< 2	-----		
R-08	205	--	< 5	0.4	25	120	1.0	2	-----		
R-09	205	--	< 5	< 0.2	19	3900	1.0	9	-----		
R-10	205	--	< 5	< 0.2	19	1300	1.2	8	-----		
R-11	205	--	60	19.2	51	180	5.6	10	-----		
R-12	205	--	< 5	0.3	15	130	0.6	< 2	-----		
R-13	205	--	160	5.3	32	100	2.0	7	-----		
R-14	205	--	60	6.1	65	140	10.4	13	-----		
R-15	205	--	65	2.5	27	190	1.6	7	-----		
R-16	205	--	5	0.2	15	130	0.6	3	-----		
R-17	205	--	< 5	< 0.2	16	90	0.6	5	-----		
R-18	205	--	< 5	0.2	33	160	0.8	6	-----		
R-19	205	--	10	0.2	22	70	0.4	6	-----		
R-20	205	--	150	1.5	16	90	0.8	3	-----		
R-21	205	--	150	2.1	22	70	1.8	6	-----		
R-22	205	--	30	0.2	16	40	2.2	5	-----		
R-23	205	--	660	29.0	19	50	10.4	4	-----		
R-24	205	--	70	1.3	29	40	2.2	3	-----		
R-25	205	--	610	38.0	19	50	15.2	4	-----		
R-26	205	--	>10000	>100.0	46	60	50.0	8	0.340		
R-27	205	--	60	1.1	12	40	1.6	3	-----		
R-28	205	--	30	0.7	24	50	1.6	4	-----		

PLATES 3,4,5 missing

CERTIFICATION :

Chemex Labs Inc.

Analytical Chemists * Geochemists * Registered Assayers

994 WEST GLENDALE AVE., SUITE 7, SPARKS, NEVADA, U.S.A. 89431

PHONE (702) 356-5395

To: GREAT BASIN EXPLORATION CO.

3898 WASHINGTON ST.
SAN FRANCISCO, CALIFORNIA
94118

Project :

Comments: ATTN: ALEXANDER VAN HAFFTEN CC: EDMOND LAWRENCE

Date : 18-SEP-89
Invoice # : I-8925008
P.O. # : NONE

CERTIFICATE OF ANALYSIS A8925008

SAMPLE DESCRIPTION	PREP CODE		Au ppb FA+AA	As ppm	Hg ppb	Sb ppm	W ppm	Ag ppm Aqua R
0N 000E	202	--	< 5	17	40	0.8	4	< 0.2
0N 050E	202	--	< 5	38	60	2.0	12	0.6
0N 100E	202	--	< 5	22	50	1.4	8	0.7
0N 050W	202	--	< 5	23	60	1.2	11	1.2
0N 100W	202	--	< 5	19	40	1.0	9	< 0.2
0N 150W	202	--	< 5	12	40	0.6	< 2	< 0.2
0N 200W	202	--	< 5	14	30	0.6	3	< 0.2
0N 250W	202	--	< 5	11	30	0.6	3	< 0.2
0N 300W	202	--	< 5	12	40	0.8	2	< 0.2
100S 000E	202	--	< 5	12	40	0.6	3	< 0.2
100S 050E	202	--	< 5	20	50	1.0	6	0.2
100S 100E	202	--	< 5	22	50	1.4	7	0.2
100S 050W	202	--	< 5	19	50	0.8	4	< 0.2
100S 100W	202	--	< 5	12	40	0.6	3	< 0.2
100S 150W	202	--	< 5	10	30	0.4	2	< 0.2
100S 200W	202	--	< 5	14	40	0.6	2	< 0.2
100S 250W	202	--	< 5	12	30	0.6	2	< 0.2
100S 300W	202	--	< 5	14	170	0.8	3	< 0.2
200S 000E	202	--	< 5	17	50	0.8	3	< 0.2
200S 050E	202	--	< 5	14	40	0.6	3	< 0.2
200S 100E	202	--	< 5	12	40	0.6	2	< 0.2
200S 050W	202	--	< 5	14	40	0.6	3	< 0.2
200S 100W	202	--	< 5	14	40	0.4	3	< 0.2
200S 150W	202	--	< 5	11	30	0.4	3	< 0.2
200S 200W	202	--	< 5	10	20	0.6	2	< 0.2
200S 250W	202	--	< 5	10	30	0.4	< 2	< 0.2
200S 300W	202	--	< 5	11	30	0.4	2	< 0.2
300S 000E	202	--	< 5	12	40	0.6	2	< 0.2
300S 050E	202	--	< 5	17	30	1.0	4	< 0.2
300S 100E	202	--	< 5	16	40	0.8	3	< 0.2
300S 050W	202	--	< 5	12	30	0.2	5	< 0.2
300S 100W	202	--	< 5	11	30	0.4	2	< 0.2
300S 150W	202	--	10	12	30	0.4	3	< 0.2
300S 200W	202	--	< 5	11	40	0.2	< 2	< 0.2
300S 250W	202	--	< 5	14	70	0.4	3	< 0.2
300S 300W	202	--	< 5	10	40	0.4	2	< 0.2
400S 000E	202	--	< 5	10	20	0.4	2	< 0.2
400S 050E	202	--	< 5	11	20	0.4	2	< 0.2
400S 100E	202	--	< 5	14	20	0.6	2	< 0.2
400S 050W	202	--	< 5	10	20	0.2	< 2	< 0.2

CERTIFICATION : Stewart Bichler

Chemex Labs Inc.

Analytical Chemists * Geochemists * Registered Assayers

994 WEST GLENDALE AVE., SUITE 7, SPARKS, NEVADA, U.S.A. 89431

PHONE (702) 356-5395

To: GREAT BASIN EXPLORATION CO.

3898 WASHINGTON ST.
SAN FRANCISCO, CALIFORNIA
94118

Project :

Comments: ATTN: ALEXANDER VAN HAFFTEN CC: EDMOND LAWRENCE

Date :18-SEP-89
Invoice # :I-8925008
P.O. # :NONE

CERTIFICATE OF ANALYSIS A8925008

SAMPLE DESCRIPTION	PREP CODE		Au ppb FA+AA	As ppm	Hg ppb	Sb ppm	W ppm	Ag ppm Aqua R
400S 100W	202	--	< 5	11	30	0.6	< 2	< 0.2
400S 150W	202	--	< 5	10	40	0.4	< 2	< 0.2
400S 200W	202	--	< 5	11	50	0.4	3	1.0
400S 250W	202	--	< 5	11	60	0.4	2	< 0.2
400S 300W	202	--	< 5	10	40	0.2	< 2	< 0.2
500S 000E	202	--	< 5	12	40	0.4	3	< 0.2
500S 050E	202	--	< 5	11	10	0.4	< 2	< 0.2
500S 100E	202	--	< 5	10	20	0.4	< 2	< 0.2
500S 050W	202	--	< 5	12	20	0.4	3	< 0.2
500S 100W	202	--	< 5	12	30	0.4	3	< 0.2
500S 150W	202	--	< 5	11	40	0.4	3	< 0.2
500S 200W	202	--	< 5	12	30	0.4	3	< 0.2
500S 250W	202	--	< 5	11	30	0.4	3	< 0.2
500S 300W	202	--	< 5	12	20	0.4	3	< 0.2
600S 000E	202	--	< 5	15	40	0.6	3	< 0.2
600S 050E	202	--	< 5	12	20	0.4	2	< 0.2
600S 100E	202	--	< 5	11	30	0.4	2	< 0.2
600S 050W	202	--	< 5	12	30	0.4	3	< 0.2
600S 100W	202	--	< 5	14	40	0.4	3	< 0.2
600S 150W	202	--	< 5	14	40	0.4	3	< 0.2
600S 200W	202	--	< 5	12	30	0.6	3	< 0.2
600S 250W	202	--	< 5	12	30	0.6	3	< 0.2
600S 300W	202	--	< 5	10	10	0.4	4	< 0.2
700S 000E	202	--	< 5	14	30	0.4	3	< 0.2
700S 050E	202	--	< 5	15	50	0.6	4	< 0.2
700S 100E	202	--	15	20	60	1.0	5	< 0.2
700S 050W	202	--	< 5	14	30	0.4	3	< 0.2
700S 100W	202	--	< 5	11	30	0.4	3	< 0.2
700S 150W	202	--	< 5	12	30	0.6	3	< 0.2
700S 200W	202	--	< 5	11	40	0.4	6	< 0.2
700S 250W	202	--	< 5	14	30	0.6	3	< 0.2
700S 300W	202	--	< 5	12	40	0.6	4	< 0.2

CERTIFICATION : Norm Bachler

Chemex Labs Inc.

Analytical Chemists * Geochemists * Registered Assayers

994 WEST GLENDALE AVE., SUITE 7, SPARKS, NEVADA, U.S.A. 89431

PHONE (702) 356-5395

To: VAN HEFFTEN, ALEXANDER

3898 WASHINGTON ST.
SAN FRANCISCO, CALIFORNIA
94118

Project :

Comments: CC: EDMOND LAWRENCE

Date : 31-OCT-89
Invoice # : I-8928849
P.O. # :

CERTIFICATE OF ANALYSIS A8928849

SAMPLE DESCRIPTION	PREP CODE		Au ppb FA+AA	Ag ppm Aqua R	As ppm	Hg ppb	Sb ppm	Au FA oz/T
P50S-0E	205	---	< 5	< 0.2	25	20	0.8	-----
P50S-0050E	205	---	< 5	< 0.2	33	580	4.0	-----
P50S-0100E	205	---	< 5	< 0.2	38	900	3.4	-----
P50S-0150E	205	---	< 5	< 0.2	29	110	6.2	-----
P50S-0200E	205	---	< 5	< 0.2	36	260	2.2	-----
P50S-0250E	205	---	< 5	< 0.2	25	260	2.8	-----
P50S-0300E	205	---	< 5	< 0.2	27	160	3.6	-----
P50S-0350E	205	---	< 5	< 0.2	24	200	2.6	-----
P50S-0400E	205	---	< 5	< 0.2	19	470	2.2	-----
P50S-0450E	205	---	< 5	< 0.2	9	460	2.6	-----
P50S-0500E	205	---	< 5	< 0.2	27	200	3.6	-----
P50S-0600E	205	---	< 5	< 0.2	29	170	2.4	-----
P50S-0650E	205	---	5	< 0.2	30	160	1.6	-----
P50S-0700E	205	---	5	< 0.2	30	50	1.4	-----
P50S-0750E	205	---	5	< 0.2	32	150	1.4	-----
P50S-0800E	205	---	< 5	0.2	48	100	3.0	-----
P50S-0850E	205	---	135	0.4	50	50	4.2	-----
P50S-0875E	205	---	65	2.7	60	210	5.4	-----
P50S-0900E	205	---	145	1.7	53	50	6.2	-----
P50S-0950E	205	---	< 5	0.3	35	30	1.6	-----
P50S-1000E	205	---	10	0.6	29	20	1.4	-----
P-100S-0800E	205	---	< 5	0.2	50	70	5.6	-----
P-100S-0850E	205	---	15	0.3	50	50	5.2	-----
P-100S-0900E	205	---	15	1.5	60	30	2.4	-----
P-100S-0950E	205	---	25	0.3	36	30	1.0	-----
P-100S-1000E	205	---	< 5	0.3	17	160	1.6	-----
R-150S-900E	205	---	25	0.7	60	70	3.4	-----
V-01	205	---	235	2.5	25	110	2.4	-----
V-02	205	---	75	2.2	50	310	4.8	-----
V-03	205	---	205	2.6	39	270	11.4	-----
V-04	205	---	105	11.5	19	200	3.4	-----
V-05	205	---	90	4.2	27	160	3.2	-----
V-06	205	---	790	34.0	20	1500	16.0	-----
V-07	205	---	880	8.0	20	100	12.2	-----
V-08	205	---	320	9.5	15	200	3.8	-----
V-09	205	---	300	4.1	22	120	5.6	-----
V-10	205	---	760	19.5	23	120	4.4	-----
V-11	205	---	440	30.0	33	170	9.8	-----
V-12	205	---	125	0.6	15	40	1.8	-----
V-13	205	---	40	0.8	9	40	1.4	-----

CERTIFICATION : Stuart Bichler

Chemex Labs Inc.
Analytical Chemists * Geochemists * Registered Assayers
994 WEST GLENDALE AVE SUITE 7, SPARKS,
NEVADA, U.S.A. 89431
PHONE (702) 356-5395

To : VAN HEFFTEN, ALEXANDER

3898 WASHINGTON ST.
SAN FRANCISCO, CALIFORNIA
94118

Project :
Comments: CC: EDMOND LAWRENCE

Date : 31-OCT-89
Invoice # : I-8928849
P.O. # :

CERTIFICATE OF ANALYSIS A8928849

SAMPLE DESCRIPTION	PREP CODE		Au ppb FA+AA	Ag ppm Aqua R	As ppm	Hg ppb	Sb ppm	Au FA oz/T
V-14	205	---	400	22.0	50	80	7.4	-----
V-15	205	---	575	34.0	15	40	17.0	-----
V-16	205	---	65	1.8	10	20	5.2	-----
V-17	205	---	935	5.2	15	30	4.0	-----
V-18	205	---	470	12.0	10	20	3.8	-----
V-19	205	---	45	6.5	23	30	9.6	-----
V-20	205	---	20	7.2	24	30	4.2	-----
V-21	205	---	170	18.2	12	30	11.6	-----
V-22	205	---	80	11.5	5	20	7.6	-----
V-22A	205	---	155	37.0	55	70	32.0	-----
V-23	205	---	3950	>100.0	19	40	22.0	-----
V-24	205	---	2120	>100.0	20	60	25.0	-----
V-25	205	---	525	25.0	11	20	15.0	-----
V-26	205	---	100	11.0	24	20	5.4	-----
V-27	205	---	180	3.5	12	20	3.8	-----
V-28	205	---	525	5.7	53	40	7.2	-----
V-29	205	---	50	1.7	15	20	7.4	-----
V-30	205	---	350	6.2	6	20	6.0	-----
V-31	205	---	40	8.8	33	30	3.2	-----
V-32	205	---	15	1.7	20	50	3.0	-----
V-33	205	---	85	2.7	27	40	11.0	-----
V-34	205	---	115	2.2	35	30	4.4	-----
V-35	205	---	50	0.6	27	30	4.4	-----
V-36	205	---	710	6.8	100	250	17.8	-----
V-37	205	---	95	0.5	16	40	4.2	-----
V-38	205	---	4700	1.8	17	30	4.4	-----
V-39	205	---	330	1.5	30	50	3.0	-----
V-40	205	---	>10000	28.0	100	60	9.0	0.432
V-41	205	---	630	1.0	11	20	3.4	-----
V-42	205	---	365	4.0	30	30	2.4	-----
V-43	205	---	1300	6.7	9	20	3.2	-----
V-44	205	---	425	21.0	9	20	3.2	-----
V-45	205	---	360	2.6	45	650	3.2	-----
V-46	205	---	445	5.2	15	40	2.6	-----
V-47	205	---	8470	18.5	20	30	2.2	-----
V-48	205	---	35	0.6	6	30	1.4	-----
V-49	205	---	20	< 0.2	2	20	3.4	-----
V-50	205	---	95	1.4	80	50	7.0	-----
V-51	205	---	75	0.9	50	80	4.4	-----
JG-1	205	---	< 5	1.2	3	150	2.6	-----

CERTIFICATION : Hart Bichler

Chemex Labs Inc.
Analytical Chemists • Geochemists • Registered Assayers
994 WEST GLENDALE AVE , SUITE 7, SPARKS,
NEVADA, U.S.A. 89431
PHONE (702) 356-5395

To : VAN HEFFTEN, ALEXANDER

3898 WASHINGTON ST.
SAN FRANCISCO, CALIFORNIA
94118

Project :
Comments: CC: EDMOND LAWRENCE

Date : 31-OCT-89
Invoice # : I-8928849
P.O. # :

CERTIFICATE OF ANALYSIS A8928849

SAMPLE DESCRIPTION	PREP CODE		Au ppb FA+AA	Ag ppm Aqua R	As ppm	Hg ppb	Sb ppm	Au FA oz/T				
R-30	205	---	< 5	< 0.2	10	2900	6.6	-----				
R-31	205	---	< 5	< 0.2	9	4600	3.0	-----				
2500S-100W	205	---	< 5	< 0.2	29	100	1.2	-----				
2500S-50W	205	---	< 5	< 0.2	19	410	2.6	-----				
2500S-0E-W	205	---	< 5	< 0.2	1200	1600	45.0	-----				
2500S-50E	205	---	< 5	< 0.2	20	150	1.4	-----				
2500S-100E	205	---	< 5	< 0.2	50	1100	1.2	-----				
2500S-150E	205	---	< 5	< 0.2	70	140	1.0	-----				
2550S-100W	205	---	< 5	< 0.2	10	980	1.6	-----				
2550S-50W	205	---	< 5	< 0.2	17	2300	1.8	-----				
2550S-0E-W	205	---	< 5	< 0.2	10	1300	1.6	-----				
2550S-50E	205	---	< 5	< 0.2	7	3900	1.2	-----				
2550S-100E	205	---	< 5	< 0.2	50	280	1.8	-----				
2550S-150E	205	---	< 5	< 0.2	36	380	1.0	-----				
2600S-100W	205	---	< 5	< 0.2	16	720	1.4	-----				
2600S-50W	205	---	< 5	< 0.2	39	2600	2.4	-----				
2600S-0E-W	205	---	< 5	< 0.2	27	830	3.2	-----				
2600S-50E	205	---	< 5	< 0.2	35	110	1.2	-----				
2600S-100E	205	---	< 5	< 0.2	50	100	0.8	-----				
2600S-150E	205	---	< 5	< 0.2	50	210	1.6	-----				

CERTIFICATION : Stewart Buchler

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CERTIFICATE OF ANALYSIS A8928848

SAMPLE DESCRIPTION	PREP CODE		Au ppb FA+AA	Ag ppm Aqua R	As ppm	Hg ppb	Sb ppm					
200S-100W	205	--	< 5	< 0.2	25	220	5.4					
200S-050W	205	--	< 5	< 0.2	30	70	3.0					
200S-0E-W	205	--	10	< 0.2	25	170	3.0					
200S-050-E	205	--	25	0.8	33	40	1.8					
200S-100-E	205	--	< 5	< 0.2	15	730	2.2					
200S-150-E	205	--	< 5	< 0.2	35	380	3.2					
200S-200-E	205	--	< 5	< 0.2	19	90	3.8					
200S-250-E	205	--	< 5	< 0.2	32	220	5.6					
200S-300-E	205	--	< 5	< 0.2	17	140	2.2					
200S-350-E	205	--	< 5	< 0.2	27	70	2.2					
200S-400-E	205	--	< 5	< 0.2	27	430	4.0					
200S-450-E	205	--	50	< 0.2	60	250	4.6					
200S-500-E	205	--	< 5	< 0.2	19	120	1.4					
200S-550-E	205	--	< 5	< 0.2	24	180	3.2					
200S-600-E	205	--	< 5	< 0.2	25	180	4.4					
200S-650-E	205	--	< 5	< 0.2	15	90	2.2					
200S-700-E	205	--	< 5	< 0.2	14	100	1.8					
200S-750-E	205	--	< 5	< 0.2	33	90	4.6					
200S-800-E	205	--	< 5	< 0.2	24	150	3.4					
250S-100W	205	--	< 5	< 0.2	29	280	3.2					
250S-050W	205	--	< 5	< 0.2	27	110	3.4					
250S-0E-W	205	--	< 5	< 0.2	25	310	5.2					
250S-050E	205	--	< 5	< 0.2	27	230	2.8					
250S-100E	205	--	< 5	< 0.2	14	140	2.2					
250S-150E	205	--	< 5	< 0.2	20	190	2.0					
250S-200E	205	--	< 5	< 0.2	24	390	2.2					
250S-250E	205	--	< 5	< 0.2	110	430	17.6					
250S-300E	205	--	< 5	< 0.2	22	320	11.0					
250S-350E	205	--	< 5	< 0.2	11	100	5.4					
250S-400E	205	--	< 5	< 0.2	16	400	3.8					
250S-450E	205	--	< 5	< 0.2	48	150	2.0					
250S-500E	205	--	< 5	< 0.2	27	190	1.6					
250S-550E	205	--	< 5	< 0.2	39	380	2.6					
250S-600E	205	--	< 5	< 0.2	19	100	2.0					
250S-650E	205	--	10	< 0.2	11	190	1.4					
250S-700E	205	--	5	< 0.2	15	70	1.8					
250S-750E	205	--	< 5	0.7	60	150	3.4					
250S-800E	205	--	< 5	< 0.2	60	120	3.4					
300S-100W	205	--	< 5	< 0.2	70	110	6.8					
300S-050W	205	--	< 5	< 0.2	27	100	7.0					

CERTIFICATION : Stuart Bichler

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To: VAN HEFFTEN, ALEXANDER
3898 WASHINGTON ST.
SAN FRANCISCO, CALIFORNIA
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Project :
Comments: CC: EDMOND LAWRENCE

Date :31-OCT-89
Invoice # :I-8928848
P.O. # :

CERTIFICATE OF ANALYSIS A8928848

SAMPLE DESCRIPTION	PREP CODE		Au ppb FA+AA	Ag ppm Aqua R	As ppm	Hg ppb	Sb ppm					
300S-0E-W	205	--	< 5	< 0.2	32	190	2.8					
300S-050E	205	--	< 5	< 0.2	15	120	2.4					
300S-100E	205	--	< 5	< 0.2	16	250	2.4					
300S-150E	205	--	< 5	< 0.2	53	360	5.2					
300S-200E	205	--	< 5	< 0.2	23	140	7.4					
300S-250E	205	--	< 5	< 0.2	19	270	2.6					
300S-300E	205	--	< 5	< 0.2	6	110	2.4					
300S-350E	205	--	< 5	< 0.2	25	790	3.4					
300S-400E	205	--	< 5	< 0.2	20	140	4.2					
300S-450E	205	--	< 5	< 0.2	38	100	2.4					
300S-500E	205	--	< 5	< 0.2	9	360	1.8					
300S-550E	205	--	< 5	< 0.2	20	540	2.4					
300S-600E	205	--	< 5	< 0.2	20	390	2.2					
300S-650E	205	--	< 5	< 0.2	27	2200	270					
300S-700E	205	--	< 5	0.4	32	270	3.2					
350S-150E	205	--	< 5	< 0.2	33	120	3.8					
350S-200E	205	--	< 5	< 0.2	12	140	3.2					
350S-250E	205	--	< 5	< 0.2	23	300	4.0					
350S-300E	205	--	< 5	< 0.2	27	150	4.2					
350S-350E	205	--	< 5	< 0.2	19	160	2.8					
350S-400E	205	--	< 5	< 0.2	50	740	6.8					
350S-450E	205	--	< 5	< 0.2	20	170	1.8					
350S-500E	205	--	< 5	< 0.2	32	470	3.4					
400S-150E	205	--	< 5	< 0.2	30	390	4.2					
400S-200E	205	--	< 5	< 0.2	70	160	8.4					
400S-250E	205	--	< 5	< 0.2	20	270	4.0					
400S-300E	205	--	< 5	< 0.2	22	880	3.4					
400S-350E	205	--	< 5	< 0.2	23	440	3.4					
400S-400E	205	--	< 5	< 0.2	27	350	3.2					
400S-450E	205	--	< 5	< 0.2	19	270	2.8					
450S-150E	205	--	< 5	< 0.2	24	290	5.4					
450S-200E	205	--	< 5	< 0.2	27	620	4.6					
450S-250E	205	--	< 5	< 0.2	80	350	4.0					
450S-300E	205	--	< 5	< 0.2	12	70	2.6					
450S-350E	205	--	< 5	< 0.2	35	100	4.0					
P100N-0800E	205	--	< 5	0.5	27	80	2.0					
P100N-0850E	205	--	< 5	0.3	19	30	1.6					
P100N-0900E	205	--	20	0.4	60	30	3.0					
P100N-0950E	205	--	< 5	0.4	27	20	1.0					
P100N-1000E	205	--	70	1.0	70	1700	5.2					

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CERTIFICATE OF ANALYSIS A8928848

SAMPLE DESCRIPTION	PREP CODE		Au ppb FA+AA	Ag ppm Aqua R	As ppm	Hg ppb	Sb ppm
P50N-0-E	205	--	< 5	< 0.2	25	120	7.4
P50N-0050E	205	--	< 5	< 0.2	27	110	3.0
P50N-0100E	205	--	< 5	< 0.2	24	190	4.0
P50N-0150E	205	--	< 5	< 0.2	33	220	3.2
P50N-0200E	205	--	< 5	< 0.2	16	100	4.0
P50N-0250E	205	--	< 5	< 0.2	12	100	2.6
P50N-0300E	205	--	< 5	< 0.2	15	450	2.4
P50N-0350E	205	--	< 5	< 0.2	10	1300	1.8
P50N-0400E	205	--	< 5	< 0.2	32	630	3.2
P50N-0450E	205	--	< 5	< 0.2	14	660	2.4
P50N-0500E	205	--	< 5	< 0.2	32	240	3.4
P50N-0600E	205	--	< 5	< 0.2	45	1400	2.6
P50N-0650E	205	--	< 5	< 0.2	19	530	2.2
P50N-0700E	205	--	< 5	< 0.2	20	760	2.0
P50N-0750E	205	--	< 5	< 0.2	25	100	1.4
P50N-0800E	205	--	< 5	< 0.2	10	510	3.4
P50N-0850E	205	--	15	< 0.2	50	100	3.0
P50N-0900E	205	--	40	1.0	50	950	6.0
P50N-0950E	205	--	< 5	0.3	50	90	1.4
P50N-1000E	205	--	30	1.4	60	570	3.2
P-0N-S-0E	205	--	< 5	< 0.2	25	160	4.4
P-0N-S-0050E	205	--	< 5	< 0.2	10	270	2.2
P-0N-S-0100E	205	--	< 5	< 0.2	32	230	7.4
P-0N-S-0150E	205	--	< 5	< 0.2	48	330	5.6
P-0N-S-0200E	205	--	< 5	< 0.2	25	260	3.0
P-0N-S-0250E	205	--	< 5	< 0.2	33	210	3.0
P-0N-S-0300E	205	--	< 5	< 0.2	15	260	2.6
P-0N-S-0350E	205	--	< 5	< 0.2	20	60	2.0
P-0N-S-0400E	205	--	< 5	< 0.2	22	160	2.8
P-0N-S-0450E	205	--	< 5	< 0.2	38	260	2.6
P-0N-S-0500E	205	--	< 5	< 0.2	14	80	1.4
P-0N-S-0600E	205	--	< 5	< 0.2	17	170	2.4
P-0N-S-0650E	205	--	< 5	< 0.2	27	170	2.2
P-0N-S-0700E	205	--	< 5	< 0.2	36	40	1.6
P-0N-S-0750E	205	--	< 5	0.3	29	20	1.2
P-0N-S-0800E	205	--	< 5	0.2	25	30	1.4
P-0N-S-0850E	205	--	15	0.4	50	20	2.6
P-0N-S-0900E	205	--	175	1.0	60	30	6.6
P-0N-S-0950E	205	--	250	1.9	60	20	3.6
P-0N-S-1000E	205	--	40	1.7	150	40	6.2

CERTIFICATION : Stuart Bichler