GEOLOGICAL, GEOCHEMICAL AND GEOPHYSICAL REPORT

on the

BELL AND JUNIPER 1 TO 6 MINERAL CLAIMS

and

JUNIPER (Lot 1604) AND BULLION FR. (Lot 3450) REV CG'S

Olalla Area
Osoyoos Mining Division

82E-4W, 5W
(49°15' N. Lat.,119°49' W. Long.)

for

GRANT F. CROOKER
Box 404
Keremeos, B.C.
V0X 1N0
(OWNER and OPERATOR)

LOG NO: 0509 RD
ACTION:

FILE NO:

by

GRANT F. CROOKER, B.Sc.,F.G.A.C.
CONSULTING GEOLOGIST

April, 1990

GEOLOGICAL BRANCH
ASSESSMENT REPORT

19,963

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ILLUSTRATIONS

SUMMARY AND RECOMMENDATIONS

The Juniper-Bell Property is located approximately five kilometers north of Keremeos at Olalla B.C. and is owned by Grant Crooker of P.O. Box 404, Keremeos, B.C. It consists of one modified grid claim (Bell), six two post claims (Juniper 1 to 6) and two Reverted Crown Grant's (Juniper Lot 1604, Bullion Fr Lot 3450).

The Olalla area has been the scene of exploration for base and precious metals since the late 1890's. A number of properties including the Shepard-Sunrise, Golconda, Something Good, Dolphin and Bullion have been actively explored since that time.

During the spring of 1990 the Juniper 5 and 6 claims and the Bullion Fr Reverted Crown Grant were acquired. These claims are located adjacent to the Bullion Property. Significant gold and silver values have been reported from skarn mineralization at the Bullion by a number of authors.

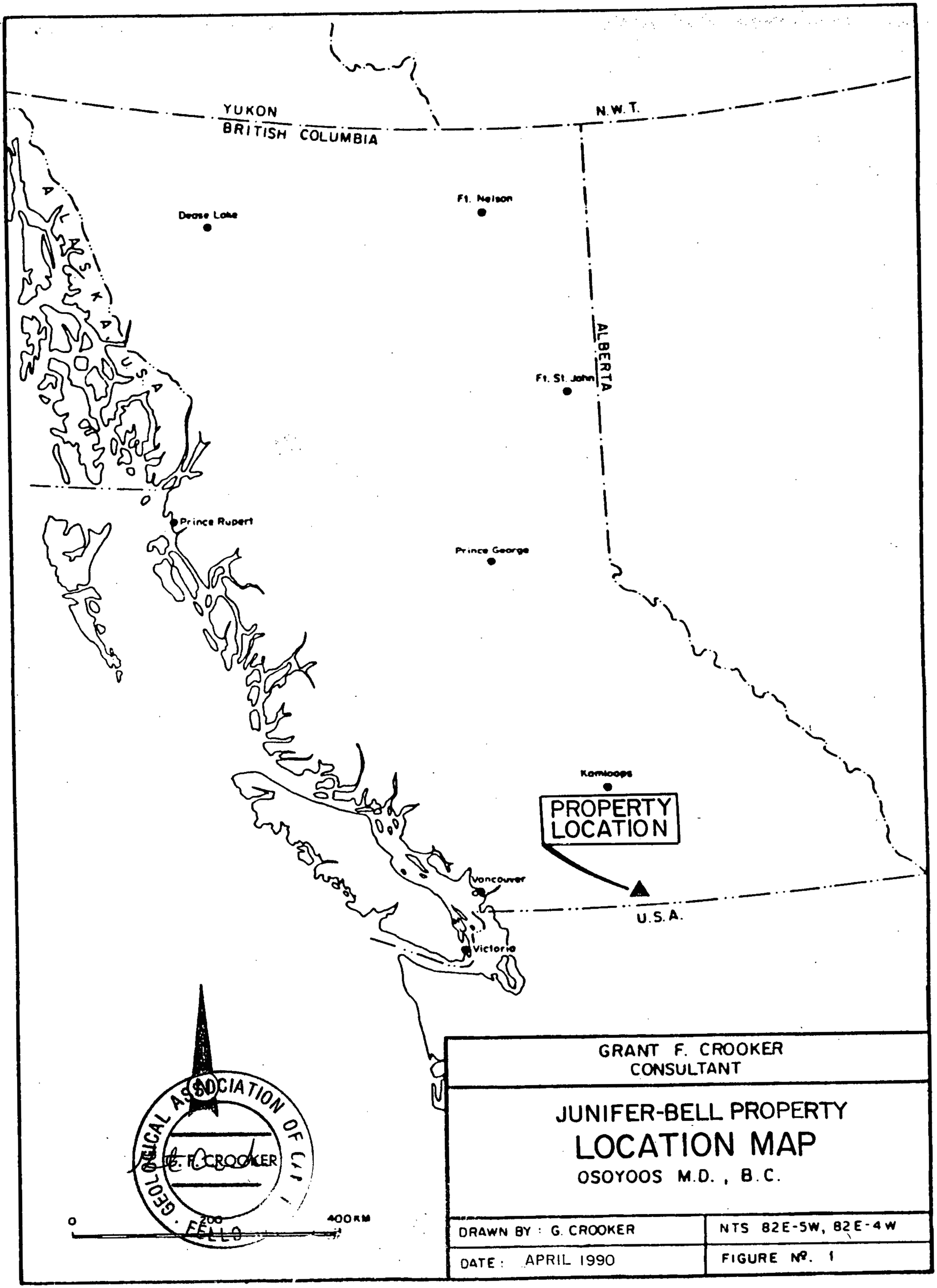
Previous work on the Bell Property has discovered a number of small showings with gold and silver values. Mineralization is related to skarns, shears and quartz veins. The highest assay values have been from 3 to 6 centimeter wide quartz veinlets which gave up to 0.324 oz/ton gold and 17.20 ozs/ton silver. Skarn mineralization on the Juniper Reverted Crown Grant has given values up to 0.084 oz/ton gold.

This program consisted of establishing a grid over the northeastern portion of the property in the vicinity of the Bullion Property. Geological mapping, prospecting, soil sampling, magnetometer surveying and surveying of two old adits were carried out.

The 1990 exploration program was successful in outlining several areas which contain anomalous gold values as well as a number of small silver, arsenic, copper and lead soil geochemical anomalies.

A number of 5 to 25 centimeter wide quartz veins containing pyrite, chalcopyrite, galena, azurite and malachite were found. Rock sampling of these veins gave weakly anomalous gold values up to 560 ppb and silver values up to 29.4 ppm.

The most significant mineralization appears to be a magnetite rich skarn which has been silicified and carbonate altered. It occurs at line 11700E & 10175N, and is poorly exposed and of unknown extent. Rock sampling gave values up to 1030 ppb (0.03 oz/ton) gold.



GRANT F. CROOKER
CONSULTANT

JUNIFER-BELL PROPERTY
LOCATION MAP
OSOYOOS M.D., B.C.

DRAWN BY : G. CROOKER	NTS 82E-5W, 82E-4W
DATE : APRIL 1990	FIGURE Nº. 1

Most of the geochemical anomalies appear to be caused by 5 to 25 centimeter wide quartz veins containing chalcopyrite and galena. However silver values were anomalous in the soil along line 11700E and no cause is evident for these anomalous samples.

Recommendations are to continue the work program on the Juniper-Bell Property with particuliar emphasis on 1) the area around the silicified and carbonate altered skarn zone and 2) the West Adit near the Bullion Property.

The work program should include completing the grid, magnetometer survey, soil sampling, geological mapping and prospecting on the property. In addition, a VLF-EM survey should be carried out.

Respectively submitted,

G. F. CROOKER
GEOLOGICAL ASSOCIATION OF CANADA
FELLOW

Grant Crooker, B.Sc., F.G.A.C.,
Consulting Geologist

1.0 INTRODUCTION

1.1 GENERAL

Work was carried out on the Juniper-Bell Property from April 2nd to 21st 1990, by Grant Crooker Geologist, and Lee Mollison, field assistant.

The Bullion Fr Reverted Crown Grant and the Juniper # 5 and Juniper # 6 two post claims were acquired in the spring of 1990. These claims are located in the vicinity of the Bullion Property at the northwest corner of the Bell claim. The 1990 work program concentrated on this portion of the property.

A grid was established in the northwest corner of the Bell claim and geological mapping, prospecting, soil sampling and a magnetometer survey were carried out over the grid.

1.2 LOCATION AND ACCESS

The property (Figure 1) is located at Olalla, 5 kilometers north of Keremeos in southern British Columbia. The property lies between 49°14' and 49°16'north latitude and 119°48' and 119°50' west longitude (NTS 82E-4W, 5W).

Access to the property is via Highway 3A, which bisects the property. Several logging and mining roads give good access to various areas of the property.

1.3 PHYSIOGRAPHY

The property covers the bottom of the Keremeos Creek Valley and extends up the hillsides on the east and west sides of the valley. Elevation varies from 500 to 1000 meters above sea level and topography varies from flat on the valley bottom to steep, impassable cliffs on the valley sides. A number of areas are extremely precipitous.

Keremeos Creek flows in a southerly direction through the claims. Vegetation consists of sage-brush and-bunch grass with scattered fir and pine trees.

1.4 PROPERTY AND CLAIM STATUS

The Juniper-Bell Property (Figure 2) is owned by Grant Crooker of Keremeos, B.C..

The property consists of one modified grid claim (Bell), six two post claims (Juniper 1 to 6) and two reverted Crown Grant's (Juniper Lot 1604, Bullion Fr Lot 3450). The property is located in the Osoyoos Mining Division.

Claim	Units	Mining Division	Record No.	Record Date	Expiry Date
Bell	20	Osoyoos	1029(4)	04/24/80	04/24/92*
Juniper	1	Osoyoos	2224(5)	05/13/85	05/13/96*
Juniper 1	1	Osoyoos	2419(5)	05/12/86	05/12/92*
Juniper 2	1	Osoyoos	2420(5)	05/12/86	05/12/92*
Juniper 3	1	Osoyoos	2421(5)	05/12/86	05/12/92*
Juniper 4	1	Osoyoos	2422(5)	05/12/86	05/12/92*
Juniper 5	1	Osoyoos	3366(4)	04/04/90	04/04/95*
Juniper 6	1	Osoyoos	3367(4)	04/04/90	04/04/95*
Bullion Fr	1	Osoyoos	3353(3)	03/15/90	03/15/93

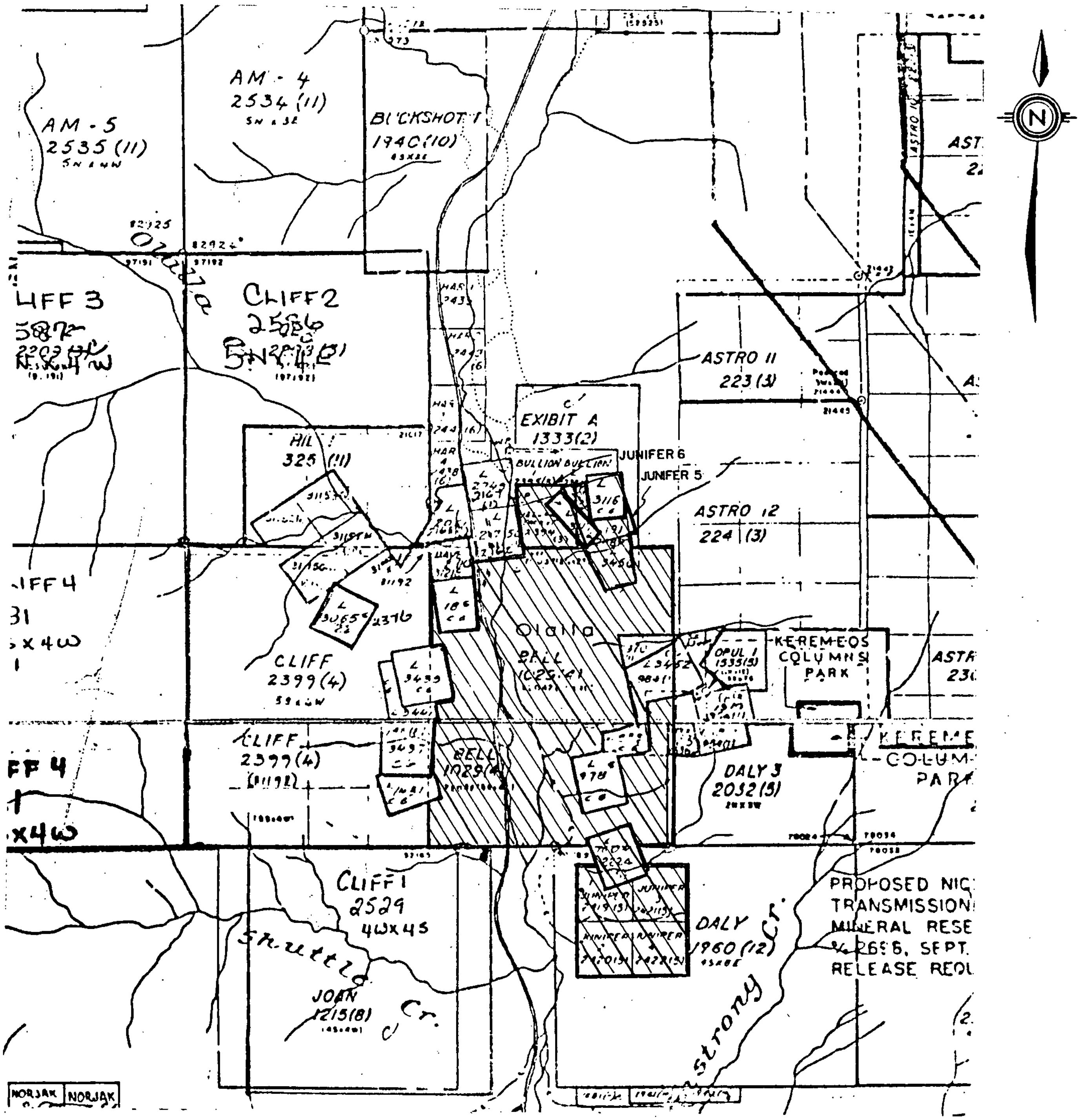
* Upon acceptance of this report.

1.5 AREA AND PROPERTY HISTORY

The property is located in the Olalla Gold Camp in southern British Columbia (Figure 3). Mining activity has been carried out in this area since the 1880's. The property is located 20 kilometers southeast of Hedley, where Mascot Gold Mines Limited began production early in 1987 with ore reserves of 7,200,000 tons grading 0.15 ounces per ton gold and containing 1,000,000 ounces of recoverable gold. Mining will be by open pit methods.

A number of mining properties have been explored in the Olalla area since the 1880's. These include the Bullion, Dolphin, Golconda, Something Good and Shepard-Sunrise. Exploration has been oriented towards copper, molybdenum, silver and gold. Goldcliff Resource Corporation has been carrying out exploration on the Cliff Claims immediately east of the Bell Claim since 1986. Exploration has been directed towards gold with encouraging results.

On the Something Good Property (Lot 1451, Minfile 82E-SW-014) immediately west of the Bell Claim a carbonate shear and breccia zone occurs in argillacious and cherty sediments near the contact of a large pyroxenite body. Calcite, quartz, and pyrite occur within the zone.



GEOLOGICAL ASSOCIATION OF CANADA
G. F. CROOKER
FELLOW

0 1 2 3 kms.
scale

GRANT F. CROOKER	
JUNIFER-BELL PROPERTY	
CLAIM MAP	
DRAWN BY: G. CROOKER	N.T.S. : 82 E - 4W, 5W
DATE: APRIL 1990	FIGURE Nº. 2

Three adits were driven on the zone in 1936-1937. The No. 1 adit (2541 feet ASL) was driven for 350 feet, and followed the footwall of the shear zone. The first 110 feet of the adit followed a well defined breccia zone. Samples taken by the resident geologist for the B.C. Dept. of mines in 1937 (M.S. Hedley) ranged from 0.05 ounces per ton gold over 54 inches to 2.20 ounces per ton gold over 11 inches. Beyond this point the graphitic shear contained negligible gold values. The No. 3 adit (2342 feet ASL) was driven for 385 feet in the pyroxenite. Negligible gold values were encountered in the adit. Limited diamond drilling was also carried out, and some values were reported.

On the Golconda Property (Minfile 82E-SW-016) located one kilometer west of the Bell Property a shear zone up to five feet wide and made up of one or more slickensided and gouge filled fault planes cuts pyroxenite. A number of quartz lenses between 30 and 60 feet long and 12 to 50 inches wide occur within the shear zone. These zones appear to occur at changes in attitude in the structure. The quartz is crudely banded and contains pyrite, chalcopyrite, molybdenum, and minor galena. Values in gold and silver also occur within the structure.

Several adits follow the shear zone, which strikes south 56° east. Limited production has come from the property, and a small mill has operated several times.

The Shepard-Sunrise Property (Lot 18s, Minfile 82E-SW-015) located along the western boundary of the Bell Claim appears to have the most economically significant mineralization in the Olalla Camp. Several mineralized quartz veins on the property have been explored by trenching, diamond drilling and several adits.

The diamond drilling was carried out in two phases, the first between 1946 and 1948 by Hedley-Monarch Mines Ltd., and the second during 1961 and 1962 by Friday Mines Ltd.. The work has indicated ore reserves of 2177.28 tonnes of 0.99 ounces per ton gold and 2.50 ounces per ton silver. It has been reported that 300 tons of ore averaging 0.53 ounces per ton gold and 0.45 ounces per ton silver were shipped during the 1946-1948 period.

The mineralization appears to be related to the east-west striking Valley Fault. During drilling on the quartz veins, a gold bearing pyritic-silicious breccia zone was discovered. This breccia zone also appears to be related to the Valley Fault, and reported drill hole intersections are as follows:

D.H. No.	Intersection	Width	oz Au	oz Ag	Location
H-5	315.6'-354.7'	39.1'	0.056	0.14	Shepard-Sunrise
H-8	383.0'-391.1'	8.1'	0.330	1.08	Shepard-Sunrise
H-8	365.2'-400.7'	35.5'	0.110	0.35	Shepard-Sunrise
H-10	354.9'-360.1'	5.2'	0.063	0.25	Shepard-Sunrise
H-10	403.8'-411.7'	7.9'	0.139	0.53	Shepard-Sunrise

Some of these drill intersections are within 200 meters of the Bell Claim boundary, although the exact drill hole locations have been lost.

The only specific references to the area now covered by the Juniper-Bell Property are in the B.C. Department of Mines Annual Reports for 1899 and 1900. They report several open cuts and a 40 foot shaft in the vicinity of the Roadside Showing (108+00E, 83+00N). Good copper ore assaying about $ 7.00 per ton in gold was reported.

During the period 1980 through 1988 geological mapping, prospecting, geophysical surveys and geochemical sampling were carried out over several areas of the property. Several skarn zones, shear zones and narrow quartz veins containing anomalous gold and silver values were found. The highest assays of 0.324 oz/ton gold and 17.20 oz/ton silver were obtained from a 3 to 6 centimeter wide quartz vein.

During the spring of 1990, 3 claims were acquired surrounding the Bullion Property (Lots 3116, 3117). The Bullion Property contains quartz vein and/or breccia mineralization as well as skarn mineralization. The most significant gold mineralization is associated with the skarns but the quartz veins and breccias also contain anomalous amounts of gold. The skarn mineralization has developed where diorite has contacted limestones and limey sediments of the Apex Mountain Group.

A number of references are available on the Bullion with the most comprehensive being plan and section maps compiled by C.C. Starr in 1934. This work shows 3 main adits at the 2680 (No. 1), 2500 (No. 2) and 2025 (No. 3) foot levels ASL. The most significant skarn mineralization occurs in the area of the No. 1 adit where numerous workings have exposed garnet skarns with pyrite, pyrrhotite, magnetite and chalcopyrite. Gold values of 3.0 oz/ton and silver values of 0.70 oz/ton are reported over 4.6 feet. A number of other significant gold and silver assays have been taken in the area including two by Friday Mines Ltd. in 1962 which gave 3.0 feet of 0.88 oz/ton and 3.25 feet of 0.32 oz/ton gold. The higher gold values appear to be associated with higher copper values.

The No. 2 and No. 3 adits were driven to intersect the mineralization at a lower elevation. The No. 2 adit did not intersect significant mineralization while the No. 3 adit was not driven far enough to intersect the mineralized zone.

On the Juniper-Bell Property, a small pie shaped fraction between the Bullion Crown Grant's was acquired by staking the Juniper 5 and 6 mineral claims. This pie shaped fraction contains the West Tunnel which was sampled by Starr in 1934. The highest value returned from this sampling was 0.04 oz/ton gold and 0.34 oz/ton silver over 3.5 feet in skarn mineralization.

2.0 EXPLORATION PROCEDURE

The grid which was established over a portion of the property in 1988 was extended into the northwest corner of the Bell Claim by this years survey. A baseline was established along line 10,500 north and crosslines ran at right angles to the baseline. Geological mapping, prospecting, soil sampling and a magnetometer survey were carried out over the grid.

GRID PARAMETERS

- -baseline direction E-W
- -survey lines perpendicular to baseline
- -survey line separation 100 meters
- -survey station spacing 25 meters, slope corrected
- -survey total - 8.5 kilometers
- -declination 21°

GEOCHEMICAL SURVEY PARAMETERS

- -survey line separation 100 meters
- -survey sample spacing 25 meters
- -survey totals - 5.2 kilometers
  - 225 soil samples collected
  - 20 rock samples taken
- -72 soil samples analyzed by 30 element ICP (50 m spacing)
- -20 rock samples analyzed for Au and 30 element ICP
- -sample depth 5 to 15 centimeters
- -sample taken from brown B horizon

All samples were sent to ACME Analytical Laboratories Ltd., 852 East Hastings Street, Vancouver, B.C., V6A 1R6. Laboratory technique for soil geochemical analysis consists of preparing samples by drying at 95° C, and seiving to minus 80 mesh. Rock samples are pulverized to minus 100 mesh.

Gold is determined by a wet gold analysis. A 10 gram sample is ignited at 600 degrees C, digested with hot aqua regia, extracted by MIBK and analysed by graphite furnace AA. Sensitivity is to one ppb. The 30 element ICP is carried out by digesting a 0.5 gram sample with 3 mls 3-1-2-HCL-HNO3-H20 at 95 degrees C for one hour and is diluted to 10 mls with water. The leach is near total for base metals, partial for rock forming elements and very slight for refractory elements. Solubility limits for Ag, Pb, Sb, Bi, W for high grade samples.

Silver and arsenic, and copper and lead soil geochemistry were plotted on figures 7 and 8 respectively.

GEOPHYSICAL SURVEY PARAMETERS

TOTAL FIELD MAGNETIC SURVEY

-survey line spacing 100 meters
-survey station spacing 25 meters
-survey totals - 7.9 kilometers
-Scintrex MP-2 magnetometer used for all survey
-measured total magnetic field in gammas
-instrument accuracy ± 1 gamma

A base station reading was taken at the beginning and ending of each day. These values were used to obtain a standard value for the baseline reading. Baseline readings were then corrected to standard values and all loops ran off the baselines were then corrected to these standard values by the straight line method.

The magnetic data was plotted on figure 9 at a scale of 1:5000.

3.0 GEOLOGY AND MINERALIZATION

3.1 REGIONAL GEOLOGY

The Juniper-Bell Property is located within the Intermontane Belt of British Columbia. An ultramafic to alkalic stock in the central portion of the property (Figure 3) has intruded marine sedimentary and volcanic rocks in the northern and southern portions of the property.

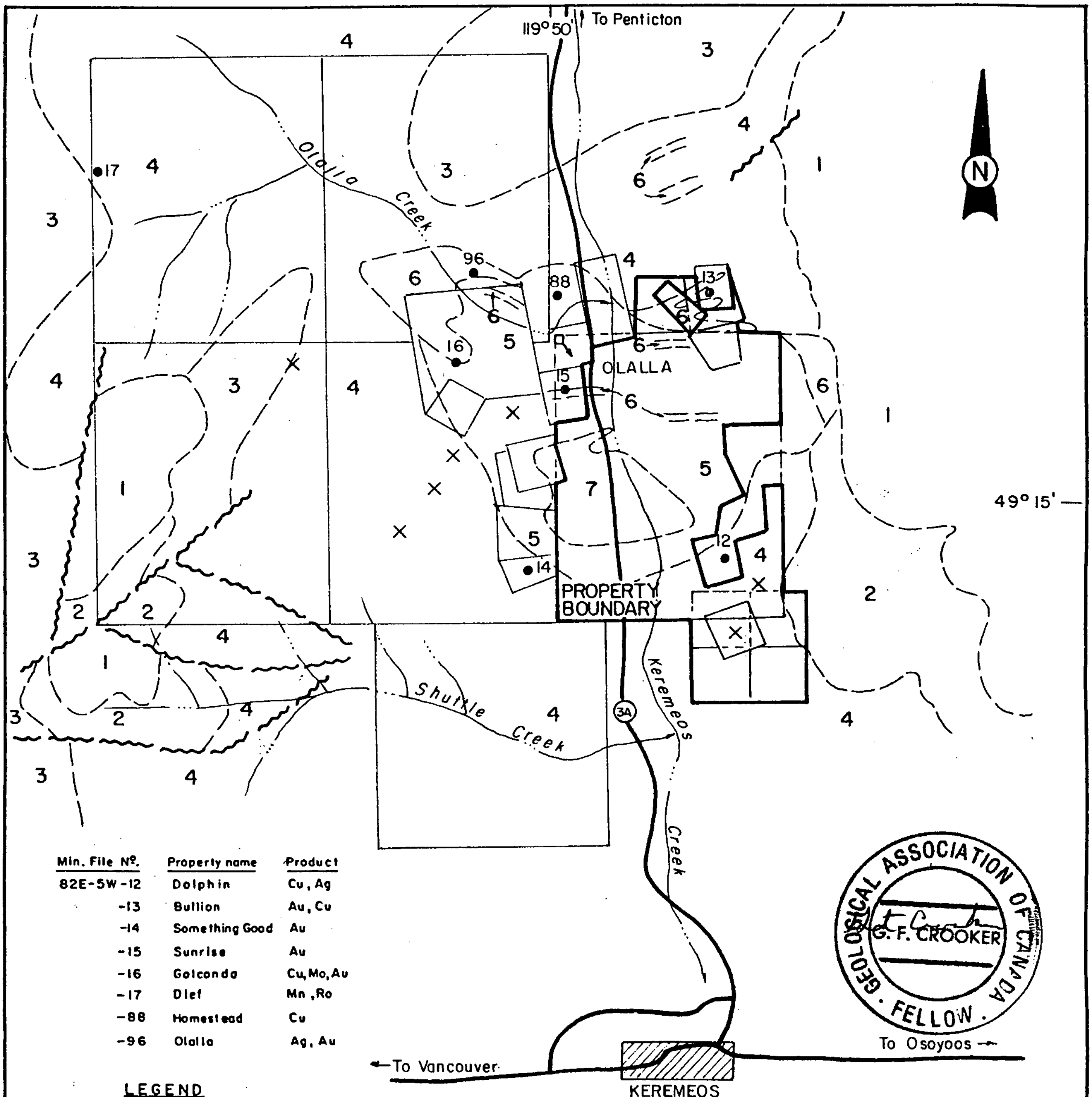
Early work in the area by Bostock and others described the marine sedimentary and volcanic sequence as belonging to the Old Tom, Shoemaker, Bradshaw, and Independence Formations. However as these formations do not form distinct, mappable units, Milford (1984) referred to the sequence as the Apex Mountain Group.

The Apex Mountain Group consists of five major lithofacies: massive and bedded chert, greenstone, chert breccia, argillite and limestone. Together they form a broadly folded, east dipping sequence that has an overall increase in age towards structurally higher rocks in the area. The maximum and minimum ages based on faunal ages in limestones and chert are Early Carboniferous and Middle to Late Triassic respectively.

The depositional environment of the Apex Mountain Group is interpreted to be generally deep, open-ocean basin. Shallow water deposition occurred locally. The group is interpreted to represent at least part of an ancient subduction complex that formed by eastward directed underthrusting and accretion of successively younger slices of oceanic sedimentary and volcanic rocks.

Other assemblages possibly temporally correlative with the Apex Mountain Group include the Kobau, Chapperon, Harper Ranch, and Cache Creek Groups.

The ultramafic to alkalic stock occupies approximately six square miles and is of late Mesozoic age. The stock grades from a peripheral zone of pyroxenite, high in mafics and magnetite, to a magnetite deficient granitic core. Faulting with associated veining, brecciation and mineralization occurred as contemporaneous or post consolidation features.



Min. File Nº.	Property name	Product
82E-5W-12	Dolphin	Cu, Ag
-13	Bullion	Au, Cu
-14	Something Good	Au
-15	Sunrise	Au
-16	Golconda	Cu, Mo, Au
-17	Olef	Mn, Ro
-88	Homestead	Cu
-96	Olalla	Ag, Au

LEGEND

× Gold showing

Legal corner post

ROCK		TIME / UNIT	FORMATIONS
VOLCANIC & SEDIMENTARY		TERTIARY	
	1	Basalts	MARRON
	2	Conglomerates, sandstones	KETTLE RIVER
METAMORPHIC		PERMIAN	
	3	Greenstone	OLD TOM
	4	Chert	SHOE MAKER
PLUTONIC		MESOZOIC	OLALLA STOCK
	5	Pyroxenite	
	6	Diorite	
	7	Syenite	

GRANT F. CROOKER

JUNIFER-BELL PROPERTY

PROPERTY GEOLOGY

N.T.S. 82E-4W,5W — OSOYOOS M.D., B.C.

0 1 2 3 KM.

SCALE 1:50,000	DATE: APRIL 1990
DRAWN BY: G.F. Crooker	FIGURE Nº. 3

CHONG

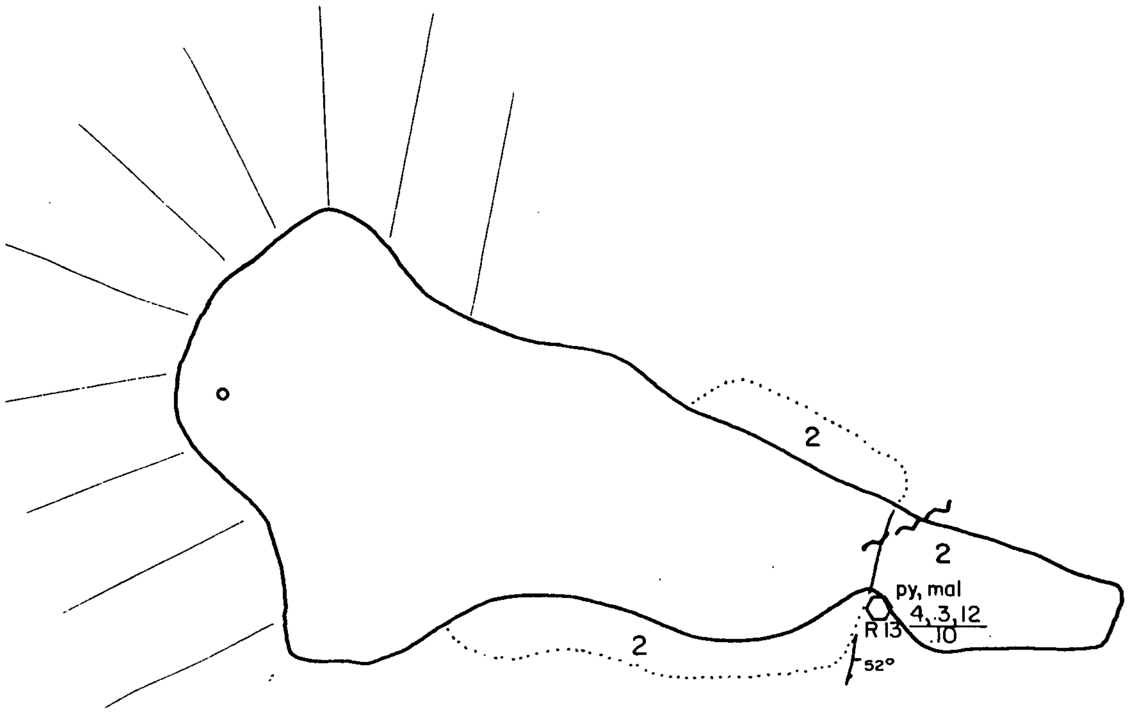
3.2 CLAIM GEOLOGY

The southern and northern portions of the property are underlain by sedimentary and volcanic rocks of the Apex Mountain Group (Unit 1, Figure 4). This is generally a black, grey or green chert or a light grey quartzite. Very fine grained greenish greenstone and light blue crystalline limestone are found within the Apex Mountain Group. This unit underlies the northern portions of the Juniper 5 and 6 claims and parts of the Bullion Property.

Ultramafic to alkalic intrusive rocks of the Olalla Stock underlie the central portion of the property. Augite pyroxenite (Unit 2) makes up the largest portion of the stock. This is a dark green, fine to medium grained equigranular rock consisting almost entirely of subhedral augite with varying amounts of magnetite. Lesser amounts of fine grained, light grey to buff to pink syenite (Unit 3) occurrs within the central core of the stock. The main constituent is orthoclase with augite being the main ferromagnessium mineral. This unit outcrops within the central portion of the Bell Claim.

The northeastern portion of the property is underlain by diorite (Unit 4). It is typically a light grey, fine to medium grained rock with hypdiomorphic texture. Augite is the dominant mafic mineral with significant concentrations of magnetite. Sturdevant (1963) termed the rock a syenodiorite.

The aplite dykes (Unit 5) are generally 10 to 20 meter wide northeast trending dykes which cut the pyroxenite. They are of unknown strike length and are fine grained, pinkish tinged rocks.



(dotted outline)	Outcrop
o	Survey point
(symbol)	Strike & dip of quartz vein
(symbol)	Shear zone, dip
(solid / dashed line)	Geological boundary (observed, assumed)
(heavy line)	Quartz vein
O R16 25,2.4,100 / .10	Bedrock sample & Nº. Au (ppb), Ag, Cu (ppm) / Width (m)
py	Pyrite
ca	Calcite
mal	Malachite
az	Azurite
cpy	Chalcopyrite
ga	Galena
mag	Magnetite

5	Aplite dyke
4	Diorite (syenodiorite)
3	Olalla syenite
2	Olalla pyroxenite
1	Apex Mtn. Group, quartzite, chert

N

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GRANT F. CROOKER

JUNIFER-BELL PROPERTY

GEOLOGY - ADIT E

N.T.S. 82E-4W,5W   OSOYOOS M.D., B.C.

0   2   4   6 Metres

SCALE 1:100	DATE: APRIL 1990
DRAWN BY: G.F. Crooker	FIGURE Nº. 5

CHONG

3.3 MINERALIZATION

A number of showings, mainly quartz ± calcite veins were found during the 1990 program. Several of these showings occur along lines 11500E through 11700E. The clear to white quartz veins (Figure 4) are 10 to 30 centimeters wide, generally north to northwest trending and southeasterly dipping. They generally contain ½ to 1% pyrite with traces of galena, chalcopyrite, azurite and malachite. The samples taken contained only background values of gold and weakly anomalous silver (10.0 ppm).

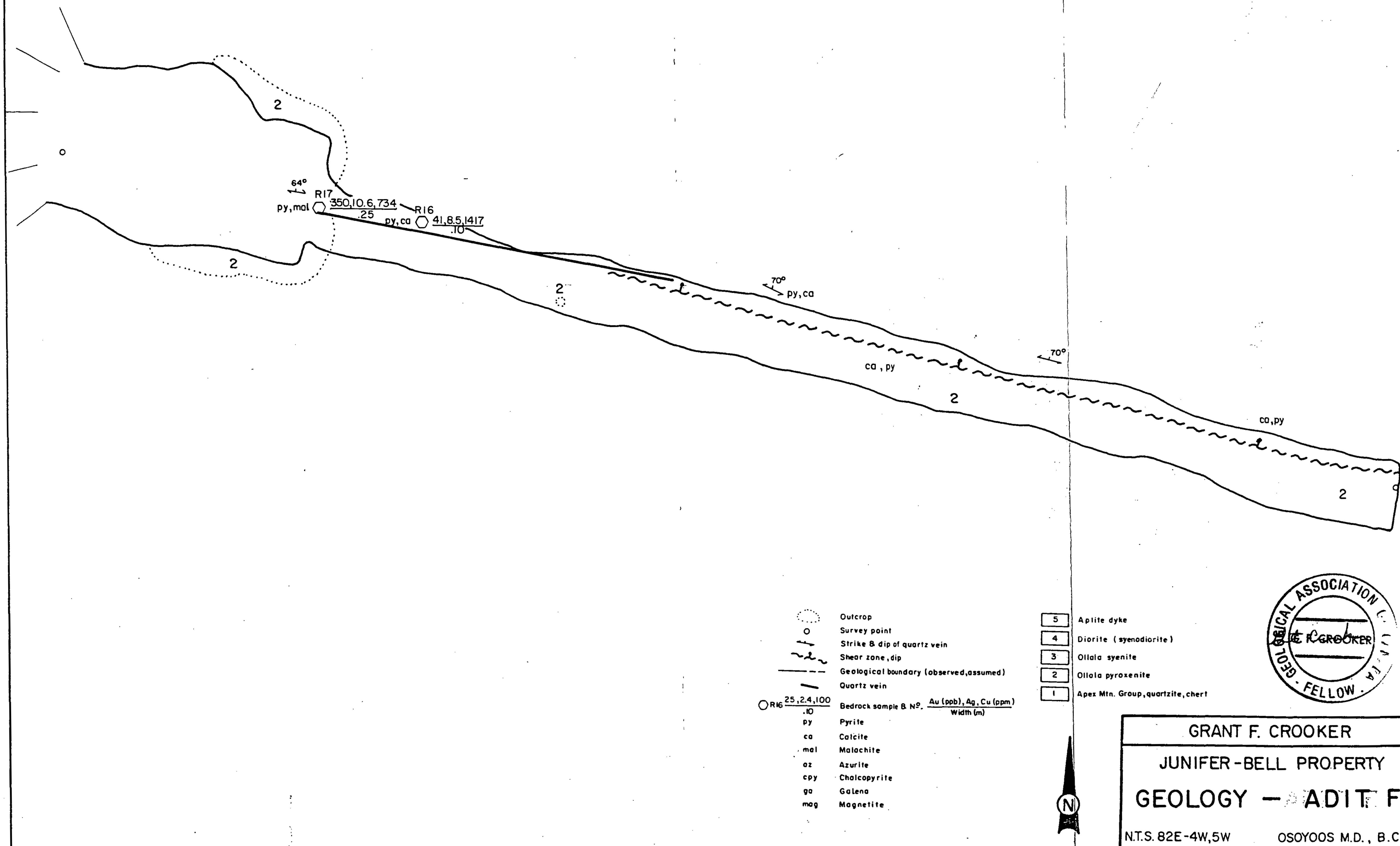
Two adits, Adit E (Figure 5) and Adit F (Figure 6) were also discovered by prospecting. Adit E is 3 meters long with an additional 9 meters of open cut. An 8 to 12 centimeter wide quartz vein striking 192° and dipping 52° east is exposed in the adit. The vein contains up to ½% pyrite and traces of malachite, but gold, silver and base metal values were background only.

Adit F is 31 meters long. Near the portal it follows a 110° striking, steeply north dipping shear zone and quartz vein. The zone is up to 25 centimeters wide near the portal but quickly narrows to a 1 to 2 centimeter wide fracture with calcite. Up to 2% pyrite, with traces of galena, chalcopyrite, molybdenite and malachite were found in the vein. Sample JB-R17 assayed 350 ppb gold and 10.6 ppm silver.

A small section of the northeast corner of the Bell Claim was prospected and 3 small trenches were found. The trenches expose 5 to 25 centimeter wide, east-west trending, steeply north dipping quartz veins. The veins contain ½ to 1% pyrite with varying amounts of chalcopyrite and galena. Samples JB-R19 through JB-R20 were taken from the 3 trenches. The samples gave anomalous values of up to 560 ppb gold and 29.4 ppm silver. While these values are subeconomic, they are higher than the quartz veins sampled near Adits E and F.

The most significant gold mineralization found during the 1990 program was located adjacent to an old trench at 11700E & 10175N. The trench has sloughed in, but above the trench is an outcrop of magnetite rich skarn with pervasive silicification and carbonate alteration. Up to 5% pyrite occurs with the magnetite, and in some sections the iron minerals are oxidized and the entire rock is silicified and carbonate altered. The mineralization is poorly exposed in outcrop but occurs adjacent to an aplite dyke within the pyroxenite.

Samples JB-R05 through JB-R09 were taken from the exposure and gave values up to 1030 ppb (0.03 oz/ton) gold. While these values are subeconomic, they are anomalous and important as this mineralization is similiar to that found on the western side of Olalla Camp, on the Goldcliff Resources Corporation Cliff Claims.



GRANT F. CROOKER

JUNIFER-BELL PROPERTY

GEOLOGY – ADIT F

N.T.S. 82E-4W,5W — OSOYOOS M.D., B.C.

0 2 4 6 METRES

SCALE 1:100	DATE: APRIL 1990
DRAWN BY: G.F. Crooker	FIGURE Nº. 6

4.0 GEOCHEMISTRY

4.1 SOIL GEOCHEMISTRY

Seventy-two soil samples were analyzed by 30 element ICP and the background and anomalous values were chosen as follows:

ELEMENT	BACKGROUND	ANOMALOUS
Ag ppm	0.27	≥ 0.5
As ppm	4.3	≥ 7.0
Cu ppm	134.0	≥ 200.0
Pb ppm	16.8	≥ 26.0

Silver, arsenic, copper and lead were plotted on maps due to their association with quartz veins and gold.

Silver

Silver values ranged from 0.1 to 0.9 ppm and one small anomaly was outlined. Anomaly Ag-1 is a small anomaly occurring at the south end of lines 11600E and 11700E. Two narrow quartz veins with pyrite, galena and chalcopyrite are found within the anomaly and explain part of the anomaly. The extension to the north may be caused by additional undiscovered quartz veins.

Line 11700E has anomalous values along its entire length, including the area of magnetite rich skarn with silicification and carbonate alteration. These high silver values may be indicating quartz vein or skarn type mineralization higher up the hill.

Arsenic

Arsenic values ranged from 2 to 20 ppm and one small anomaly was outlined. Anomaly As-1 occurs along line 11100E north of the baseline below a gossanous cliff and talus area. Copper anomaly Cu-2 occurs coincidentally with the aresenic. No further information is known on this area.

Copper

Copper values ranged from 28 to 946 ppm and two small anomalies were outlined. Anomaly Cu-1 occurs along the eastern boundary of the Bell Claim on line 10200N. It occurs near two old trenches which have narrow quartz veins with chalcopyrite and weakly anomalous gold values. However a part of the anomaly occurs up slope from the trenches so additional quartz veins or other copper mineralization must occur in the area.

Anomaly Cu-2 occurs at the north end of line 11100N and is coincidental with arsenic anomaly As-1.

Lead

Lead values ranged from 4 to 69 ppm and one small anomaly was outlined. Anomaly Pb-1 occurs at the south end of lines 11600E and 11700E and is thought to be caused by several quartz veins in the area containing galena. Silver anomaly Ag-1 is partly coincidental with the lead anomaly.

5.0 GEOPHYSICS

5.1 MAGNETOMETER SURVEY

The magnetic response shows values ranging from 50555 to 74208 gammas over the grid area. The higher values occur in the eastern portion of the 1990 grid while lower values occur in the northern and western portions of the 1990 grid. The magnetic data indicates the pyroxenite rocks are highly magnetic while the diorite and sedimentary rocks are relatively nonmagnetic.

A magnetic low feature extends from 11300E & 10425N to 11700E & 10500N. This feature appears to outline a major structure which occurs coincidentally with the Bullion Canyon. Magnetic values are as low as 50555 gammas within the structure.

6.0 CONCLUSIONS AND RECOMMENDATIONS

The 1990 exploration program was successful in outlining several areas which contain anomalous gold values as well as a number of small silver, arsenic, copper and lead soil geochemical anomalies.

A number of 5 to 25 centimeter wide quartz veins containing pyrite, chalcopyrite, galena, azurite and malachite were found. Rock sampling of these veins gave weakly anomalous gold values up to 560 ppb and silver values up to 29.4 ppm.

The most significant mineralization appears to be a magnetite rich skarn which has been silicified and carbonate altered. It occurs at line 11700E & 10175N, and is poorly exposed and of unknown extent. Rock sampling gave values up to 1030 ppb (0.03 oz/ton) gold.

Most of the geochemical anomalies appear to be caused by 5 to 25 centimeter wide quartz veins containing chalcopyrite and galena. However silver values were anomalous in the soil along line 11700E and no cause is evident for these anomalous samples.

Recommendations are to continue the work program on the Juniper-Bell Property with particuliar emphasis on 1) the area around the silicified and carbonate altered skarn zone and 2) the West Adit near the Bullion Property.

The work program should include completing the grid, magnetometer survey, soil sampling, geological mapping and prospecting on the property. In addition, a VLF-EM survey should be carried out.

Respectfully Submitted,

G. F. CROOKER — GEOLOGICAL ASSOCIATION OF CANADA — FELLOW

Grant Crooker, B.Sc., F.G.A.C.,
Consulting Geologist

7.0 REFERENCES

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CERTIFICATE OF QUALIFICATIONS

I, Grant F. Crooker, of Upper Bench Road, Keremeos, in the Province of British Columbia, hereby certify as follows:

1. That I graduated from the University of British Columbia in 1972 with a Bachelor of Science Degree in Geology.

2. That I have prospected and actively pursued geology prior to my graduation and have practised my profession since 1972.

3. That I am a member of the Canadian Institute of Mining and Metallurgy.

4. That I am a Fellow of the Geological Association of Canada.

5. That I am the owner of the Bell, Juniper, Bullion Fr and Juniper 1 to 6 mineral claims.

Dated this 7th day of May, 1990, at Keremeos, in the Province of British Columbia.

GEOLOGICAL ASSOCIATION OF CANADA · G.F. CROOKER · FELLOW ·

Grant Crooker, B.Sc., F.G.A.C.
Consulting Geologist

Appendix I

CERTIFICATES OF ANALYSIS

ACME ANALYTICAL LABORATORIES LTD. 852 E. HASTINGS ST. VANCOUVER B.C. V6A 1R6 PHONE(604)253-3158 FAX(604)253-1716

GEOCHEMICAL ANALYSIS CERTIFICATE

Grant Crooker File # 90-0929 Page 1

Box 404, Keremeos BC V0X 1N0

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm
11100E 10800N	4	305	21	154	.2	85	33	2003	5.92	12	5	ND	2	63	1	2	2	114	.91	.135	20	78	1.25	388	.30	7	2.17	.02	.75	2
11100E 10750N	2	246	8	106	.1	56	26	946	4.73	5	5	ND	2	59	1	2	2	85	.67	.087	14	45	1.04	339	.34	5	2.32	.02	.71	1
11100E 10700N	2	122	14	101	.1	28	15	907	4.04	10	5	ND	2	77	1	2	2	90	.89	.125	17	39	.55	241	.18	6	1.77	.01	.25	2
11100E 10650N	1	146	11	175	.1	55	21	916	4.89	20	5	ND	1	92	1	2	2	86	1.48	.151	16	60	1.15	329	.20	8	1.91	.02	.43	2
11100E 10600N	2	147	15	113	.1	50	19	1094	3.51	13	5	ND	1	81	1	2	2	51	.96	.148	17	42	.76	303	.15	9	2.21	.02	.52	1
11100E 10550N	2	191	17	102	.1	62	24	994	5.21	13	5	ND	6	110	1	2	2	72	.77	.112	38	56	.98	280	.21	5	2.81	.02	.62	1
11100E 10500N	2	147	15	90	.1	70	20	914	4.00	12	5	ND	3	93	1	2	2	55	.78	.088	23	57	.94	254	.16	6	2.49	.02	.44	1
11500E 10475N	2	81	14	86	.1	34	14	621	3.72	9	5	ND	8	202	1	2	2	72	.85	.137	53	42	.80	256	.20	6	1.97	.04	.32	2
11500E 10425N	2	246	20	90	.1	68	24	869	5.03	13	5	ND	5	151	1	2	2	73	1.25	.109	38	55	1.10	244	.19	7	2.43	.04	.51	1
11500E 10375N	1	73	4	78	.1	46	27	631	7.38	2	5	ND	5	112	1	2	2	156	.61	.090	31	32	1.06	243	.23	3	1.67	.02	.56	1
11500E 10325N	1	92	2	61	.3	81	43	530	12.59	2	5	ND	1	67	1	4	3	240	.80	.199	8	146	1.74	268	.24	2	1.65	.01	.59	1
11500E 10275N	1	70	17	80	.2	53	35	449	10.92	2	5	ND	2	64	1	4	2	256	.48	.070	16	66	1.12	176	.26	2	1.69	.01	.51	1
11500E 10225N	1	59	13	90	.1	32	15	584	3.97	6	5	ND	9	224	1	2	2	81	.66	.108	62	39	.66	229	.20	4	2.04	.02	.48	2
11500E 10175N	1	68	15	90	.1	31	13	587	3.77	7	5	ND	10	265	1	2	2	68	.76	.168	78	39	.66	248	.19	8	2.02	.03	.49	2
11500E 10125N	1	118	12	90	.1	48	31	591	9.04	3	5	ND	3	109	1	2	2	238	.71	.153	26	80	1.31	265	.25	2	1.65	.02	.57	1
11500E 10075N	1	83	9	83	.4	59	48	484	14.34	2	5	ND	1	36	1	4	2	347	.55	.109	5	73	1.73	214	.30	2	1.57	.02	.70	1
11500E 10025N	1	159	12	107	.4	65	39	665	10.67	2	5	ND	1	59	1	5	2	262	.83	.121	8	121	1.55	212	.23	6	1.24	.02	.52	1
11500E 9975N	1	231	10	91	.5	68	44	686	12.04	2	5	ND	1	40	1	4	2	307	.78	.097	4	125	1.65	223	.26	3	1.34	.01	.50	1
11500E 9925N	1	180	13	88	.4	73	44	606	13.52	2	5	ND	1	36	1	7	4	332	.62	.090	3	149	1.57	207	.25	7	1.23	.01	.54	1
11500E 9675N	1	138	18	82	.1	39	23	583	4.82	2	5	ND	3	111	1	2	2	122	.62	.089	23	53	.84	237	.20	3	1.94	.02	.34	2
11600E 10400N	1	75	5	72	.3	59	40	496	11.60	2	5	ND	1	38	1	5	2	244	.66	.091	3	33	1.40	193	.24	4	1.19	.01	.59	1
11600E 10350N	1	70	9	77	.1	61	38	623	9.19	2	5	ND	1	65	1	4	2	188	.86	.120	7	43	1.77	211	.21	5	1.49	.01	.53	1
11600E 10300N	1	48	12	83	.1	50	33	597	9.28	2	5	ND	2	58	1	3	2	174	.48	.057	13	36	1.26	228	.26	5	1.68	.02	.62	1
11600E 10250N	1	53	35	77	.1	53	33	474	10.53	2	5	ND	1	45	1	3	2	252	.47	.045	11	119	1.05	172	.26	5	1.56	.01	.44	1
11600E 10200N	1	54	23	88	.1	34	18	704	5.11	2	5	ND	8	188	1	2	3	112	.61	.141	58	55	.73	236	.20	4	1.84	.02	.41	1
11600E 10150N	1	206	16	101	.1	47	27	760	6.23	2	5	ND	6	138	1	2	2	169	.64	.170	42	77	.99	275	.25	2	1.96	.02	.45	1
11600E 10100N	1	214	16	88	.2	49	31	634	9.96	2	5	ND	3	104	1	3	2	252	.72	.191	27	101	1.04	288	.23	5	1.71	.02	.43	1
11600E 10050N	1	42	8	56	.1	74	37	462	11.08	2	5	ND	1	31	1	3	2	179	.55	.087	3	60	1.23	163	.19	5	.93	.01	.50	1
11600E 10000N	1	210	7	89	.3	66	42	550	12.55	2	5	ND	1	34	1	4	2	319	.65	.089	3	139	1.53	175	.24	5	1.14	.01	.47	1
11600E 9950N	1	77	9	78	.1	42	21	473	7.48	2	5	ND	8	173	1	2	3	169	.60	.128	53	68	.76	195	.19	2	1.55	.02	.40	1
11600E 9900N	1	84	10	72	.1	75	33	492	7.21	2	5	ND	2	77	1	3	2	138	.55	.089	17	114	1.66	231	.21	2	1.64	.02	.48	1
11600E 9875N	1	91	15	79	.1	40	24	464	6.74	2	5	ND	5	127	1	2	3	143	.55	.103	36	79	.82	176	.19	4	1.60	.02	.35	1
11600E 9850N	1	214	12	70	.1	55	31	428	8.33	2	5	ND	1	51	1	2	5	207	.46	.055	10	109	1.10	161	.22	2	1.35	.01	.39	1
11600E 9825N	1	72	16	92	.1	36	17	454	4.49	4	5	ND	6	168	1	2	5	101	.61	.107	47	52	.75	199	.19	5	1.83	.03	.31	1
11600E 9800N	1	160	16	81	.1	69	46	542	9.11	2	5	ND	1	46	1	2	2	249	.49	.050	10	84	1.75	235	.30	2	1.70	.02	.65	1
11600E 9775N	1	111	23	91	.1	33	17	580	5.02	4	5	ND	7	204	1	2	4	118	.68	.156	53	51	.65	209	.19	2	1.69	.03	.34	1
STANDARD C	18	58	39	131	6.9	68	31	959	3.85	39	20	8	36	48	19	16	23	59	.46	.100	37	55	.81	175	.08	36	1.79	.06	.14	12

ICP - .500 GRAM SAMPLE IS DIGESTED WITH 3ML 3-1-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR AND IS DILUTED TO 10 ML WITH WATER.
THIS LEACH IS PARTIAL FOR MN FE SR CA P LA CR MG BA TI B W AND LIMITED FOR NA K AND AL. AU DETECTION LIMIT BY ICP IS 3 PPM.
- SAMPLE TYPE: P1-P2 Soil P3 Rock

DATE RECEIVED: APR 12 1990 **DATE REPORT MAILED:** Apr 18/90 **SIGNED BY** D. Toye ..D.TOYE, C.LEONG, J.WANG; CERTIFIED B.C. ASSAYERS

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm
11600E 9750N	1	191	42	86	.3	40	23	619	7.24	2	5	ND	5	135	1	2	4	171	.68	.145	36	70	.85	185	.19	3	1.69	.02	.29	1
11600E 9725N	1	946	21	90	.6	37	27	630	6.06	2	5	ND	5	144	1	3	5	152	.72	.140	37	56	1.08	245	.22	6	2.04	.02	.35	1
11600E 9700N	1	286	22	110	.3	39	27	957	6.37	7	5	ND	4	116	1	2	2	161	.74	.153	29	62	.87	271	.23	5	2.40	.01	.27	1
11600E 9650N	1	116	19	53	.5	43	43	356	12.88	2	5	ND	1	61	1	5	2	285	1.91	.040	3	70	1.12	93	.22	4	.79	.01	.24	1
11600E 9625N	1	137	11	84	.3	51	30	523	7.53	3	5	ND	3	94	1	2	2	177	.64	.081	21	80	.93	184	.20	3	1.57	.01	.37	1
11600E 9600N	2	236	50	58	.6	66	41	558	10.19	2	5	ND	1	69	1	5	2	229	.73	.086	8	108	1.68	133	.24	2	1.23	.02	.27	1
11700E 10425N	1	76	14	85	.1	36	20	538	5.88	5	5	ND	6	127	1	2	2	133	.54	.093	35	60	.71	176	.18	3	1.63	.02	.31	1
11700E 10375N	1	222	24	81	.6	42	26	558	8.28	4	5	ND	5	139	1	2	2	199	.66	.165	36	78	.99	201	.21	3	1.55	.02	.39	1
11700E 10325N	5	133	53	65	.6	53	28	459	7.04	3	5	ND	2	113	1	2	3	166	2.21	.079	20	96	1.02	107	.16	6	1.08	.01	.30	1
11700E 10275N	1	118	5	57	.4	52	34	417	7.90	6	5	ND	3	64	1	3	2	188	.51	.041	15	91	1.12	158	.22	7	1.40	.01	.30	1
11700E 10225N	1	180	7	64	.7	46	40	531	15.58	2	5	ND	1	62	1	2	2	336	1.59	.085	5	43	1.31	341	.22	2	1.56	.02	.27	1
11700E 10175N	1	97	21	65	.7	62	43	522	15.01	2	5	ND	1	51	1	2	2	279	1.25	.133	3	40	1.71	225	.24	2	1.35	.01	.57	1
11700E 10125N	1	76	4	65	.7	70	43	461	15.69	2	5	ND	1	32	1	3	2	269	.49	.042	5	70	1.57	172	.27	5	1.46	.01	.67	1
11700E 10075N	1	78	8	89	.2	40	32	695	8.51	2	5	ND	2	66	1	4	2	163	.61	.085	11	37	1.29	297	.24	7	1.83	.02	.70	1
11700E 10025N	1	38	14	80	.1	24	13	626	4.24	4	5	ND	10	272	1	2	2	92	.84	.179	74	35	.56	192	.19	6	1.50	.07	.36	1
11700E 9975N	4	79	23	54	.9	30	26	823	10.47	5	5	ND	1	123	1	5	2	252	4.61	.156	13	58	1.39	116	.12	5	1.13	.01	.40	1
11700E 9925N	1	54	7	65	.5	69	41	373	14.42	2	5	ND	1	33	1	2	2	316	.64	.053	3	187	1.15	121	.23	2	1.09	.01	.44	1
11700E 9875N	1	73	13	56	.4	76	43	368	15.66	2	5	ND	1	20	1	2	3	253	.43	.059	2	72	1.20	128	.23	2	.98	.01	.44	1
11700E 9825N	1	73	9	70	.7	77	43	391	13.85	2	5	ND	1	48	1	4	2	309	1.10	.081	4	131	1.50	145	.24	2	1.01	.02	.35	1
11700E 9775N	1	181	9	80	.7	75	44	600	14.06	2	5	ND	1	31	1	3	2	319	.62	.066	3	154	1.71	187	.25	5	1.32	.02	.48	1
11700E 9725N	1	96	19	57	.5	95	39	399	12.14	2	5	ND	1	28	1	3	2	196	.45	.051	5	129	1.40	170	.21	2	1.38	.01	.36	1
11700E 9675N	1	84	16	48	.5	84	38	380	12.77	2	5	ND	1	41	1	2	2	210	.48	.072	7	148	1.52	146	.19	6	1.18	.01	.34	1
11700E 9625N	5	90	69	56	.6	72	37	604	8.92	2	5	ND	2	69	1	2	2	163	.84	.052	12	181	1.91	118	.17	6	1.33	.02	.32	1
10300N 12200E	2	61	20	109	.1	24	13	1203	3.39	6	5	ND	6	120	1	2	2	64	.45	.092	33	32	.55	294	.20	7	2.99	.02	.20	1
10300N 12250E	1	92	21	151	.1	20	16	2257	3.21	2	5	ND	3	87	1	2	2	65	.47	.054	16	24	.55	502	.18	4	2.54	.02	.15	1
10300N 12300E	1	125	24	139	.2	20	13	1486	3.54	5	5	ND	7	133	2	2	2	67	.65	.101	40	24	.48	307	.19	3	2.94	.02	.26	1
10300N 12350E	1	37	20	113	.1	16	10	1314	2.72	5	5	ND	8	179	1	2	2	51	.49	.069	42	24	.40	269	.17	5	2.66	.01	.23	2
10300N 12400E	1	28	20	87	.1	13	8	1179	2.20	5	5	ND	3	116	1	2	2	43	.47	.075	24	19	.33	234	.14	4	2.31	.01	.15	1
10300N 12450E	1	42	14	71	.1	16	9	803	2.63	3	5	ND	5	117	1	2	2	54	.57	.043	35	21	.41	243	.16	3	2.24	.01	.17	1
10300N 12500E	1	41	12	102	.2	15	8	885	2.52	2	5	ND	7	173	1	2	2	51	.68	.070	51	23	.38	227	.15	4	2.04	.02	.20	1
10200N 12225E	1	71	15	114	.1	21	12	1009	3.63	7	5	ND	7	139	1	2	2	75	.55	.104	42	30	.47	256	.20	4	2.54	.01	.29	1
10200N 12275E	1	79	17	110	.1	20	12	1057	3.70	3	5	ND	9	141	1	2	2	77	.51	.098	48	29	.47	251	.20	3	2.63	.01	.30	1
10200N 12325E	1	60	20	98	.1	18	10	895	2.64	6	5	ND	6	125	1	2	2	51	.53	.070	45	22	.38	239	.17	4	2.70	.01	.26	1
10200N 12375E	1	205	13	180	.3	23	15	1929	3.55	11	5	ND	4	110	3	2	2	68	.92	.096	23	29	.55	355	.20	3	3.14	.01	.25	1
10200N 12425E	1	235	24	125	.2	19	17	1394	4.71	6	5	ND	4	96	1	2	2	108	.72	.093	29	25	.61	290	.20	3	2.74	.01	.33	1
10200N 12475E	1	229	17	117	.2	18	14	1013	4.09	5	5	ND	6	111	2	2	2	92	.59	.111	34	23	.57	321	.21	2	2.62	.02	.31	1
STANDARD C	18	57	37	132	7.2	67	31	1018	3.98	39	18	7	36	48	20	15	21	59	.48	.091	37	55	.83	175	.08	36	1.86	.06	.14	11

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm	Au* ppb
JB-R01	79	177	113	37	.6	17	9	210	3.08	7	5	ND	1	163	1	2	6	16	4.38	.010	2	5	.19	100	.01	2	.09	.02	.08	1	11
JB-R02	38	10	1433	1	10.0	13	9	254	1.07	2	5	ND	1	119	1	2	22	3	5.43	.010	2	5	.02	32	.01	5	.01	.01	.01	1	24
JB-R03	1	11	19	4	.1	3	3	1325	.86	3	5	ND	1	616	1	2	3	58	29.74	.007	2	4	.20	95	.01	6	.06	.01	.01	1	4
JB-R04	188	894	883	49	6.0	12	3	80	.46	6	5	ND	1	30	1	52	16	7	.40	.001	3	10	.05	38	.01	3	.03	.01	.01	1	10
JB-R05	1	44	12	55	.9	56	35	1006	13.78	2	5	ND	1	197	1	5	2	345	7.82	.073	2	82	3.51	32	.08	6	.41	.01	.46	1	92
JB-R06	1	27	12	53	1.0	55	35	1007	14.37	2	5	ND	1	238	1	6	2	384	8.81	.031	2	79	3.01	28	.07	4	.40	.01	.39	1	1030
JB-R07	1	17	11	44	.3	29	25	749	7.02	4	5	ND	1	234	1	4	4	229	7.18	.021	2	47	1.86	20	.02	2	.17	.03	.08	1	880
JB-R08	6	21	14	46	.4	36	26	962	8.39	7	5	ND	1	223	1	5	3	103	7.43	.028	2	27	1.42	15	.01	5	.01	.01	.01	1	810
JB-R09	3	26	12	34	.1	31	23	784	6.29	3	5	ND	1	213	1	2	2	75	6.67	.009	2	16	1.45	23	.01	2	.05	.01	.01	1	530
JB-R10	81	5	755	7	5.8	6	2	496	.53	2	5	ND	1	142	1	2	15	22	7.55	.003	8	5	.13	64	.01	2	.06	.01	.01	1	37
JB-R11	70	57	84	42	.9	28	37	1073	11.01	24	5	ND	1	235	1	7	2	283	9.35	.075	3	20	1.44	33	.11	4	.74	.01	.20	3	16
JB-R12	75	51	2731	1	17.1	8	2	67	1.00	4	5	ND	1	39	1	2	40	12	.93	.003	2	6	.03	24	.01	2	.01	.01	.04	1	7
JB-R13	40	76	732	1	4.5	15	5	84	.76	2	5	ND	1	13	1	2	13	8	.41	.001	2	7	.02	14	.01	2	.01	.01	.01	1	5
JB-R15	8	12	72	2	.3	13	1	88	.60	2	5	ND	1	7	1	2	2	6	.25	.001	2	11	.03	29	.01	3	.01	.01	.01	1	4
JB-R16	695	1417	1194	37	8.5	40	35	247	10.31	6	5	ND	1	119	1	4	27	178	2.38	.069	2	49	.40	25	.27	4	.13	.04	.21	1	41
JB-R17	562	734	480	37	10.6	11	7	266	6.14	3	5	ND	1	117	1	2	16	104	2.51	.024	2	24	.15	32	.14	3	.04	.08	.15	1	350
JB-R18	10	4031	98	50	2.1	14	15	180	1.41	2	5	ND	1	115	2	2	14	13	3.15	.001	2	8	.08	45	.02	2	.02	.01	.02	1	6
JB-R19	5	199	289	101	8.0	8	2	294	.52	2	5	ND	1	27	1	2	32	40	1.48	.011	2	6	.05	15	.01	2	.17	.01	.02	1	109
JB-R20	9	15049	41	78	29.4	10	10	138	4.21	45	5	ND	1	12	2	1551	26	28	.23	.055	2	5	.16	29	.01	2	.32	.01	.08	1	340
JB-R21	3	217	41	8	1.6	8	1	235	.40	2	5	ND	1	21	1	22	8	8	1.15	.014	2	7	.04	10	.01	2	.07	.01	.01	1	560
STANDARD C/AU-R	18	57	41	131	7.1	68	30	945	3.63	36	18	6	39	48	18	16	22	58	.46	.095	38	52	.85	174	.08	35	1.69	.06	.14	11	510

Appendix II

GEOPHYSICAL EQUIPMENT SPECIFICATIONS

MP-2 PROTON PRECESSION MAGNETOMETER

Resolution:	1 gamma
Total Field Accuracy:	± gamma over full operating range
Range:	20,000 to 100,000 gammas in 25 overlapping steps.
Internal Measuring Program:	A reading appears 1.5 seconds after depression of Operate Switch & remains displayed for 2.2 secs. Recycling feature permits automatic repetitive readings at 3.7 sec. intervals.
External Trigger:	External trigger input permits use of sampling intervals longer than 3.7 seconds.
Display:	5 digit LED readout displaying total magnetic field in gammas or normalized battery voltage.
Data Output:	Multiplied precession frequency and gate time outputs for base station recording using interfacing optionally available from Scintrex.
Gradient Tolerance:	Up to 5,000 gammas/meter.
Power Source:	8 size D cells ≈25,000 readings at 25° C under reasonable conditions.
Sensor:	Omnidirectional, shielded, noise-cancelling dual coil, optimized for high gradient tolerance.
Harness:	Complete for operation with staff or back pack sensor.
Operating Temperature Range:	-35 to +60° C.
Size:	Console, 8 x 16 x 25 cm; Sensor, 8 x 15 cm; Staff 30 x 66 cm;
Weights:	Console, 1.8 kg; Sensor, 1.3 kg; Staff, 0.6 kg;
Manufacturer:	Scintrex 222 Snidercroft Road Concord, Ontario

Appendix III

MAGNETIC DATA

Grant Crooker Data Listing   Line & Station + = northing/easting
Area: Juniper-Bell Claims   - = southing/westing
Grid: Bell   File Name: junibell.xyz
Date: April 13, 1990
Instrument Type: Details
Scintrex MP-2   Corrected total field magnetic values
Data Types
#1 Total field magnetic values

Line #	Station	# 1.	# 2.	# 3.	# 4.	# 5.	# 6.
line 11100							
11100	9600	58252					
11100	9625	57949					
11100	9650	58214					
11100	9675	58013					
11100	9700	58226					
11100	9725	58014					
11100	9750	58301					
11100	9775	57872					
11100	9800	59394					
11100	9825	59405					
11100	9850	60053					
11100	9875	59540					
11100	9900	59642					
11100	9925	59442					
11100	9950	58862					
11100	9975	57823					
11100	10000	57726					
11100	10025	57619					
11100	10050	57467					
11100	10075	57218					
11100	10100	57075					
11100	10125	57528					
11100	10150	57254					
11100	10175	57004					
11100	10200	57102					
11100	10225	57020					
11100	10250	56778					
11100	10275	56701					
11100	10300	56681					
11100	10325	56758					
11100	10350	56960					
11100	10375	56855					
11100	10400	57194					
11100	10425	57679					
11100	10450	57755					
11100	10475	57903					
11100	10500	58316					
11100	10525	58474					
11100	10550	59095					
11100	10575	59540					
11100	10600	57630					
11100	10625	56352					

11100	10650	54874
11100	10675	54629
11100	10700	54971
11100	10725	53990
11100	10750	54162
11100	10775	52903
11100	10800	53136
11100	10825	53056
11100	10850	53095
11100	10875	52900
11100	10900	53137
11100	10925	53367
11100	10950	53332
11100	10975	53486

line 11200

11200	9600	59240
11200	9625	59670
11200	9650	59340
11200	9675	59164
11200	9700	59126
11200	9725	59116
11200	9750	59601
11200	9775	59718
11200	9800	60428
11200	9825	60553
11200	9850	61176
11200	9875	60581
11200	9900	60979
11200	9925	61471
11200	9950	60892
11200	9975	61618
11200	10000	58683
11200	10025	58311
11200	10050	58429
11200	10075	58320
11200	10100	57823
11200	10125	58152
11200	10150	56396
11200	10175	57044
11200	10200	57106
11200	10225	56550
11200	10250	56559
11200	10275	56650
11200	10300	56581
11200	10325	56578
11200	10350	56599
11200	10375	56801
11200	10400	56432
11200	10425	56862
11200	10450	56886
11200	10475	57105
11200	10500	57413
11200	10525	57449
11200	10550	59553

11200	10575	58950
11200	10600	57973
11200	10625	55341
11200	10650	53155
11200	10675	55084
11200	10700	54646

line 11300

11300	9600	60280
11300	9625	59896
11300	9650	59386
11300	9675	60004
11300	9700	59995
11300	9725	60104
11300	9750	59296
11300	9775	61092
11300	9800	60365
11300	9825	59992
11300	9850	59774
11300	9875	61731
11300	9900	62942
11300	9925	63172
11300	9950	61236
11300	9975	62603
11300	10000	61873
11300	10025	61832
11300	10050	63346
11300	10075	62542
11300	10100	62367
11300	10125	58688
11300	10150	59930
11300	10175	59711
11300	10200	58084
11300	10225	57571
11300	10250	57702
11300	10275	57765
11300	10300	57550
11300	10325	57445
11300	10350	56770
11300	10375	56044
11300	10400	55976
11300	10425	55623
11300	10450	55717
11300	10475	56140
11300	10500	56937
11300	10525	59276
11300	10550	61673
11300	10575	58716
11300	10600	54860

line 11400

11400	9600	61631
11400	9625	61251
11400	9650	60958
11400	9675	60819
11400	9700	60432

11400	9725	60577
11400	9750	61717
11400	9775	60727
11400	9800	58623
11400	9825	63835
11400	9850	63030
11400	9875	63209
11400	9900	63897
11400	9925	60268
11400	9950	62386
11400	9975	65007
11400	10000	62395
11400	10025	62599
11400	10050	64990
11400	10075	66473
11400	10100	64182
11400	10125	65689
11400	10150	66284
11400	10175	62063
11400	10200	68957
11400	10225	62025
11400	10250	63232
11400	10275	60764
11400	10300	55931
11400	10325	57983
11400	10350	57693
11400	10375	59132
11400	10400	55392
11400	10425	51411
11400	10450	53957
11400	10475	54007
11400	10500	54325
line 11500		
11500	9600	62014
11500	9625	60490
11500	9650	60410
11500	9675	59244
11500	9700	58355
11500	9725	63519
11500	9750	62820
11500	9775	58510
11500	9800	59213
11500	9825	61577
11500	9850	62464
11500	9875	62595
11500	9900	61476
11500	9925	58952
11500	9950	64232
11500	9975	63477
11500	10000	62848
11500	10025	61206
11500	10050	64414
11500	10075	66838
11500	10100	67641

11500	10125	67259
11500	10150	66952
11500	10175	64975
11500	10200	58791
11500	10225	59548
11500	10250	62660
11500	10275	62602
11500	10300	66981
11500	10325	60171
11500	10350	55028
11500	10375	56821
11500	10400	54301
11500	10425	52889
11500	10450	53765
11500	10475	56183
11500	10500	54032
line 11600		
11600	9600	55954
11600	9625	61864
11600	9650	68232
11600	9675	57050
11600	9700	62431
11600	9725	59480
11600	9750	56433
11600	9775	60410
11600	9800	58402
11600	9825	55885
11600	9850	59813
11600	9875	58112
11600	9900	58269
11600	9925	59949
11600	9950	61417
11600	9975	63673
11600	10000	60931
11600	10025	62449
11600	10050	57483
11600	10075	64547
11600	10100	66461
11600	10125	64329
11600	10150	66793
11600	10175	74208
11600	10200	70010
11600	10225	67520
11600	10250	59301
11600	10275	62807
11600	10300	60114
11600	10325	58566
11600	10350	56755
11600	10375	52716
11600	10400	56441
11600	10425	51360
11600	10450	50555
11600	10475	51361
11600	10500	53015

line 11700

11700	9625	61226
11700	9650	65047
11700	9675	66144
11700	9700	58601
11700	9725	61366
11700	9750	73093
11700	9775	67471
11700	9800	60743
11700	9825	68083
11700	9850	64001
11700	9875	60069
11700	9900	55615
11700	9925	61129
11700	9950	55247
11700	9975	58884
11700	10000	60818
11700	10025	57984
11700	10050	61905
11700	10075	65478
11700	10100	64024
11700	10125	60057
11700	10150	68190
11700	10175	62107
11700	10200	72161
11700	10225	66585
11700	10250	64491
11700	10275	65789
11700	10300	59423
11700	10325	57055
11700	10350	56585
11700	10375	57078
11700	10400	59754
11700	10425	55029
11700	10450	52972
11700	10475	52032
11700	10500	50847

bl10500

10500	11100	58316
10500	11125	57948
10500	11150	57657
10500	11175	57562
10500	11200	57413
10500	11225	57429
10500	11250	57427
10500	11275	57433
10500	11300	56937
10500	11325	57066
10500	11350	56078
10500	11375	54181
10500	11400	54325
10500	11425	54540
10500	11450	53855
10500	11475	53736

10500	11500	54032
10500	11525	54423
10500	11550	54835
10500	11575	54046
10500	11600	53015
10500	11625	52839
10500	11650	52701
10500	11675	51200
10500	11700	50847
10500	11725	51717
10500	11750	52156
10500	11775	52843
10500	11800	53474
10500	11825	52862
10500	11850	53735
10500	11875	53474
10500	11900	53467

Appendix IV

COST STATEMENT

COST STATEMENT

SALARIES	
- Grant Crooker, Geologist April 2-7, 9-13, 16, 21, 1990 12.5 days @ $ 350/day	$ 4,375.00
- Lee Mollison, Field Assistant April 3-6, 9-11, 1990 7 days @ $ 175.00/day	1,225.00
MEALS and ACCOMMODATION	
- Grant Crooker - 8 days @ $ 60.00/day	480.00
- Lee Mollison - 7 days @ $ 60.00/day	420.00
TRANSPORTATION	
- Vehicle Rental(Ford 3/4 ton 4x4) April 2-6, 9-11, 1990 7 days @ $ 60.00/day	420.00
- Gasoline	60.10
EQUIPMENT RENTAL	
- Magnetometer - Scintrex MP-2 April 3-6, 9, 10, 1990 6 days @ $ 25.00/day	150.00
SUPPLIES	
- Hipchain thread, flagging, etc.	101.30
FREIGHT	13.65
ANALYSIS	
- 72 soil samples, 30 element ICP @ $ 4.10 per sample	295.20
- 20 rocks, 30 element ICP, Au, @ $ 10.25	205.00
DRAUGHTING	450.00
PREPARATION of REPORT	
- Secretarial, reproduction, telephone, Office overhead etc.	600.00
TOTAL	$ 8,795.25

GEOLOGICAL BRANCH
ASSESSMENT REPORT
19,963
GRANT F. CROOKER
JUNIFER - BELL PROPERTY
GEOLOGY
N.T.S. 82E-4W, 5W
OSOYOOS M.D., B.C.
0 100 200 400 metres
SCALE 1:5000
DATE: APRIL 1990
DRAWN BY: G.F. Crooker
FIGURE No. 4
LEGEND
CLAIM POST - LCP LEGAL CORNER POST
1 INITIAL POST
2 FINAL POST
GRID STATION
CREEK
ROAD
CONTOUR INTERVAL AT 500'
ADIT
TRENCH
1988 GRID
1990 "
Outcrop
Survey point
Strike & dip of quartz vein
Shear zone, dip
Geological boundary (observed, assumed)
Quartz vein
R16 25,2.4,100 / .10 Bedrock sample & No. Au (ppb), Ag, Cu (ppm) / Width (m)
R12-100,2.8,800 Float sample & No.- Au(ppb), Ag, Cu (ppm)
5 Aplite dyke
4 Diorite (syenodiorite)
3 Ollala syenite
2 Ollala pyroxenite
1 Apex Mtn. Group, quartzite, chert
py Pyrite
ca Calcite
mal Malachite
az Azurite
cpy Chalcopyrite
ga Galena
mag Magnetite
PROPERTY OUTLINE
JUNIFER 6
JUNIFER 5
JUNIPER 1
JUNIPER 2
JUNIPER 3
JUNIPER 4
LCP BELL CLAIM
DAVE 2
OLALLA
HIGHWAY 3A
KEREMEOS CREEK
WEST TUNNEL
BULLION No. 1
BULLION No. 2
BULLION No. 3
INCLINE
B.L. 105+00 N
L103+00N
L102+00N
100+00N
90+00N
-90+00N
B.L. 80+00N
80+00 N
L 111+00E
L 112+00E
L 113+00E
L 114+00E
L 115+00E
L 116+00E
L 117+00E
120+00E
125+00E
L 107+00E
L 108+00E
L 109+00E
L 110+00E
L 115+50E
L 116+50E
L 117+50E
L 118+00E
L 119+00 E
L 120+00E
L 121+00E
L 122+00E
L 123+00E
L 2749
L 2061
L 3116
L 3117
L 3450
L 135
L 3439
L 3441
L 3437
L 1451
L 3448
L 3452
L 1983
L 1910
L 979 s
L 978 s
JUNIPER L 1604
R10 27,5.8,5 / 3
R11 16,9,57 / 1.0
R05 92,9,44 grab
R06 1050,10,27 grab
R07 880,3,17 grab
R08 810,4,21 grab
R09 530,1,26 grab
R04 10,6.0,894 grab
R03-4,.1,11
R02-24,10.0,10
R18-5,2.1,10
R12-7,17.1,51
R01 11,6,177 grab
R13 5,4.5,76 / .10
R19 109,80,199 / .25
R21 560,1.6,217 dump
R20 340,29.4,15049 dump
py,cpy,mal,az
ADIT E
ADIT F
ADIT B
ADIT C
ADIT D
ADIT A
4500
4000
3500
3000
2500
2000
CHONG


L111+00E
L112+00E
L113+00E
L114+00E
L115+00E
L116+00E
L117+00E
120+00E
125+00E
JUNIFER 6
JUNIFER 5
L 2749
L 3116
L 2061
WEST TUNNEL
INCLINE
BULLION Nº 1
BULLION Nº 2
BULLION Nº 3
OLALLA
As-1
L 3117
OLALLA CR.
L.C.P. BELL CLAIM
DAVE 2
HIGHWAY 3A
PROPERTY OUTLINE
L3450
B.L. 105+00 N
L103+00N
L102+00N
L 135
KEREMEOS CREEK
100+00N
ADIT E
ADIT F
Ag-1
L 3448
L 3439
L 3452
L 1983
L 3441
L 1910
90+00N
L 3437
L 979 s
L120+00E
L121+00E
L122+00E
L123+00E
L 978 s
L 1451
ADIT B
ADIT E
L118+00E
L119+00 E
ADIT D
B.L. 80+00N
80+00 N
JUNIPER L 1604
JUNIPER 1
JUNIPER 3
JUNIPER 2
JUNIPER 4
ADIT A
L 107+00E
L 108+00E
L 109+00E
L 110+00E
L 115+50E
L116+50E
L117+50E
LEGEND
CLAIM POST - LCP LEGAL CORNER POST
1 INITIAL POST
2 FINAL POST
GRID STATION
CREEK
ROAD
CONTOUR INTERVAL AT 500'
ADIT
TRENCH
1988 GRID
1990 "
Ag, As ppm
Ag ≥ .5 ppm anomalous
As ≥ 7 " "
GEOLOGICAL BRANCH ASSESSMENT REPORT
19,963
GEOLOGICAL ASSOCIATION OF CANADA
G. F. CROOKER
FELLOW
GRANT F. CROOKER
JUNIFER - BELL PROPERTY
SOIL GEOCHEMISTRY
Ag & As
N.T.S. 82E-4W, 5W
OSOYOOS M.D., B.C.
0 100 200 400 metres
SCALE 1:5000
DATE: APRIL 1990
DRAWN BY: G.F. Crooker
FIGURE Nº. 7
CHONG

L 111+00E
L 112+00E
L 113+00E
L 114+00E
L 115+00E
L 116+00E
L 117+00E
L 120+00E
L 125+00E
JUNIFER 6
JUNIFER 5
L 2749
L 2061
L 3116
WEST TUNNEL
INCLINE
BULLION Nº 1
BULLION Nº 2
BULLION Nº 3
L 3117
Cu-2
OLALLA
OLALLA CR
L.C.P. BELL CLAIM
DAVE 2
HIGHWAY 3A
PROPERTY OUTLINE
L 3450
B.L. 105+00 N
L103+00N
L102+00N
Cu-1
KEREMEOS CREEK
L 135
100+00N
ADIT E
ADIT F
Pb-1
L 3448
L 3452
L 1983
L 3439
L 3441
90+00N
L 3437
L 1451
L 1910
L 979 s
L 978 s
L 120+00E
L 121+00E
L 122+00E
L 123+00E
ADIT B
ADIT C
L 118+00E
L 119+00 E
ADIT D
B.L. 80+00N
80+00 N
JUNIPER L 1604
JUNIPER 1
JUNIPER 2
JUNIPER 3
JUNIPER 4
ADIT A
L 107+00E
L 108+00E
L 109+00E
L 110+00E
L 115+50E
L 116+50E
L 117+50E
LEGEND
CLAIM POST - LCP LEGAL CORNER POST
1 INITIAL POST
2 FINAL POST
GRID STATION
CREEK
ROAD
CONTOUR INTERVAL AT 500'
ADIT
TRENCH
1988 GRID
1990 "
Cu, Pb ppm
Cu ≥ 200 ppm anomalous
Pb ≥ 26 " "
GEOLOGICAL BRANCH
ASSESSMENT REPORT
19,963
GEOLOGICAL ASSOCIATION OF CANADA
G.F. CROOKER
FELLOW
N
GRANT F. CROOKER
JUNIFER - BELL PROPERTY
SOIL GEOCHEMISTRY
Cu & Pb
N.T.S. 82E - 4W, 5W
OSOYOOS M.D., B.C.
0 100 200 400 metres
SCALE 1:5000
DATE: APRIL 1990
DRAWN BY: G.F. Crooker
FIGURE Nº 8
CHONG

LEGEND

▫	CLAIM POST - LCP LEGAL CORNER POST 1 INITIAL POST 2 FINAL POST
	GRID STATION
	CREEK
	ROAD
—2000—	CONTOUR INTERVAL AT 500'
	ADIT
	TRENCH
	1988 GRID
	1990 "
	MAGNETIC CONTOUR 1000 GAMMAS
	" " 500 "

INSTRUMENT MP-2 SCINTREX
TOTAL FIELD MAGNETOMETER

GEOLOGICAL BRANCH
ASSESSMENT REPORT

19,963

GEOLOGICAL ASSOCIATION OF CANADA · FELLOW · G.F. CROOKER

GRANT F. CROOKER

JUNIFER - BELL PROPERTY

MAGNETOMETER SURVEY

N.T.S. 82E-4W, 5W — OSOYOOS M.D., B.C.

0 100 200 400 metres

SCALE 1:5000	DATE: APRIL 1990
DRAWN BY: G.F. Crooker	FIGURE Nº. 9

CHONG