NTS: 82F/11
Latitude: 49° 43'
Longitude: 117° 22'

GEOLOGICAL MAPPING ON THE FORSURE BRECCIA AND MORNING STAR GRIDS, CHAPLEAU CREEK PROPERTY, SLOCAN MINING DIVISION, BRITISH COLUMBIA

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December 24, 1991

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1. INTRODUCTION

At the request of George Zbitnoff, director of International King Jack Resources Ltd., an exploration program was conducted on the company's Chapleau Creek property. This program consisted of geological mapping in the area of the Forsure Breccia and the Morning Star adit. This program commenced on October 17, 1991 and was completed by October 25, 1991. The purpose of this program was to evaluate and extend the mineralization away from the known areas of interest.

The geological mapping was carried out at a scale of 1:1,500 on both the Forsure and Morning Star Grids. On the Forsure Grid approximately 2.1 km of flag line grid and 0.9 km of baseline was established. On this grid a total of 80 outcrops were mapped. In addition 41 rock samples were collected and analyzed for gold. Most of these represented chip samples off the Forsure Quartz Vein System. Three silt samples were also collected from Jack Creek and analyzed for gold, plus a suite of 30 major and minor elements. On the Morning Star Grid a total of 0.6 km of the existing grid was mapped and 0.6 km of new grid established. In total 23 outcrops were mapped and three rock samples were submitted for geochemical analysis of gold.

The geological mapping on the Forsure grid extended the quartz vein system representing the Forsure Breccia another 500 m to the north. This makes the strike length of this vein system at least 900 m, with both ends remaining open. In width this vein system averages between 10 and 15 m over the entire 900 m. In appearance and style of alteration the Forsure Breccia resembles an epithermal quartz vein system. Gold values from the quartz vein represented by the Forsure Breccia were all of background concentrations for gold (less than 3 ppb).

On the Morning Star Grid a heavy accumulation of snow prevented the completion of the geological mapping.

In total roughly $7,500 was expended on the property this past year. Further work is recommended on the property. More specifically this work should entail additional mapping of the Forsure Breccia and completing the Morning Star Grid. In addition more detailed soil sampling should be conducted on the Morning Star Grid. The cost of this proposed work would be roughly $10,000.

The economics of placing a mine in production would be quite good for the Chapleau Creek property. A road system is already in existence, hydro-electric power is available only six km to the west, and a steady work force is located in Slocan City within ten km of the property.

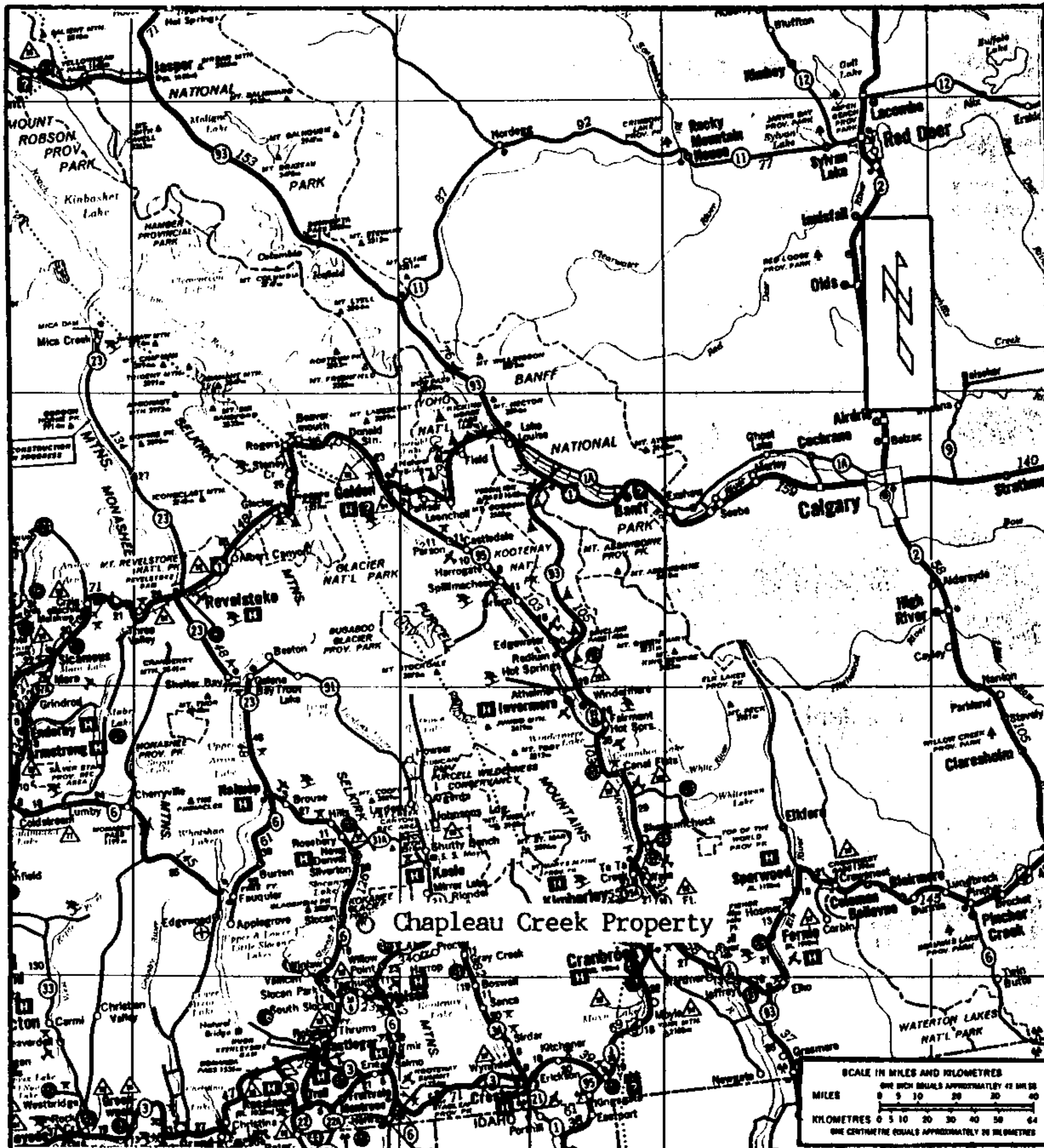
1.1 Location and Access

The Chapleau Creek property is located roughly nine kilometres southeast of Slocan City (population 1,150) in south-central British Columbia. More specifically the property is located immediately to the east of the junction of Lemon Creek and Chapleau Creek (Figure 1). The city of Nelson (population 8,130) lies 50 km to the southeast and the smelter at Trail is 90 km to the east.

Access to the property is via the Lemon Creek Road which originates five km south of Slocan City off Highway No. 6. The southern portion of the property is accessible through the Lemon Creek Road, while the northern part is accessible through the Chapleau Creek Road. Numerous branch roads exist off the Lemon Creek and Chapleau Creek Roads, providing excellent access to the property.

1.2 Physiography and Topography

The property is located in the Columbia Mountains of the Selkirk Range. The topography ranges from moderate to steep with the elevation varying from 2,500 feet near the junction of Lemon Creek and Chapleau Creek to over 5,500 feet. Creeks are reasonably plentiful, but some of the smaller tend to dry up in the late summer. The two largest bodies of water are Lemon Creek which passes along the property's southern boundary and Chapleau Creek which cuts diagonally through the centre.



LEGEND and SYMBOLS

○ Chapleau Creek Property
King Jack Project

TERRA NOVA EXPLORATION CONSULTANTS

Project Title

INDEX MAP

CHAPLEAU CREEK PROPERTY
KING JACK RESOURCES LTD.
Slocan Mining Division
CANADA

DATE·	SCALE·
Dec.,1991	As Shown
DRAWN BY· B.V.Hall	**PLATE NO.** 1

The vegetation consists of a mixture of fir, spruce, pine and cedar of which most is merchantable. Annual precipitation averages around 60 cm/year. The snowpack generally begins to accumulate in late October and usually averages 2.0 m at the higher elevations. However by June most parts of the property are generally clear of snow.

1.3 Claim Information

The Chapleau Creek property is currently owned 100% by International King Jack Resources Ltd. It presently consists of ten modified grid claims (134 units), four crown-granted claims, and eight two-post claims (eight units). In terms of area this represents roughly 3,300 hectares or 8,000 cres. The modified grid claims were all acquired through staking, whereas the two-post and crown-granted claims were purchased. Legal surveys have been carried out on the crown-granted and reverted crown-granted claims (roughly 130 hectares) whereas the remainder of the property is unsurveyed. The mineral tenure numbers and expiry dates are listed on Table 2. Also, shown on Figure 2, is the location of the claims.

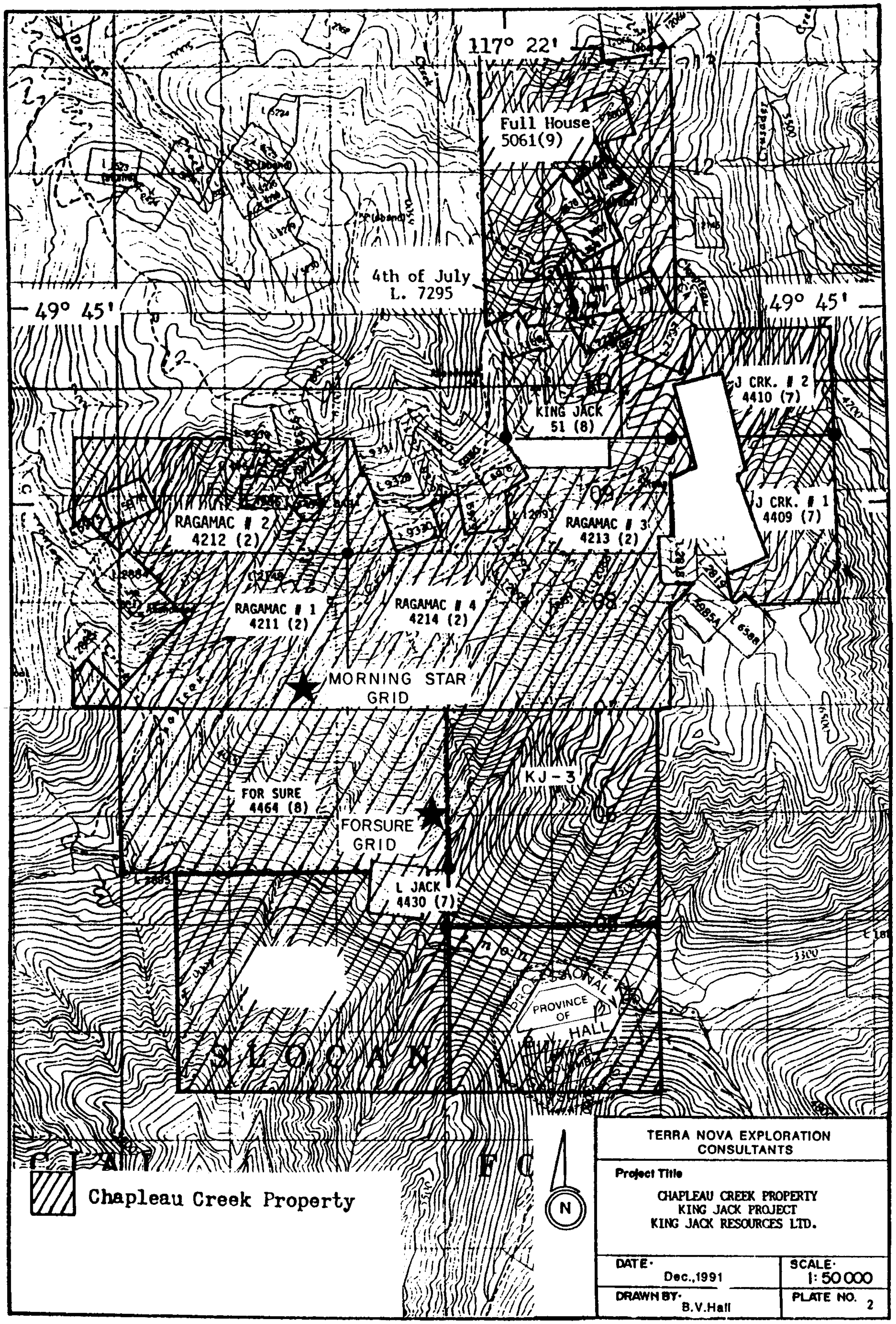
TABLE 1

CLAIM INFORMATION

Claim Name	Tenure Number	No. of Units	Recording Date	Expiry Date
King Jack	255423	4	Aug. 11, 1975	Aug. 11, 1998
JCRK #1	256036	9	Jul. 13, 1984	Jul. 13, 1993
JCRK #2	256037	8	Jul. 13, 1984	Jul. 13, 1993
Fullhouse	256238	20	Aug. 22, 1986	Aug. 22, 1995
Fourth of July	L 7245	1		
Jake	256498	1	Jul. 22, 1988	Jul. 22, 1992
Tail Holt	255688	1	Jan. 03, 1980	Jan. 03, 1993
Howard Fraction	255689	1	Jan. 03, 1980	Jan. 03, 1993
Henry Long No. 2	255702	1	Jan. 25, 1980	Jan. 25, 1993
Teuro	255703	1	Jan. 31, 1980	Jan. 31, 1993
Elk	255709	1	Feb. 14, 1980	Feb. 14, 1993
Boulder	255944	1	May 02, 1983	May 02, 1993
Ragamac 3	256006	12	Feb. 06, 1984	Feb. 06, 1992
Ragamac 4	256007	18	Feb. 06, 1984	Feb. 06, 1992
Forsure	256057	18	Aug. 24, 1984	Aug. 24, 1993
L Jack	256043	1	Jul. 27, 1984	Jul. 27, 1998
KJ-3	256553	20	Oct. 29, 1988	Oct. 29, 1991
Ragamac 2	256005	10	Feb. 06, 1984	Feb. 06, 1992
Ragamac 1	256004	15	Feb. 06, 1984	Feb. 06, 1992
Chapleau	L 4963	1		
Seattle	L 4965	1		
Corker	L 5494	1		

Note: Expiry dates noted are prior to the acceptance of the assessment work contained in this report.

82 F/11W


117° 22'
Full House
5061(9)
4th of July
L. 7295
49° 45'
49° 45'
KING JACK
51 (8)
J CRK. # 2
4410 (7)
J CRK. # 1
4409 (7)
RAGAMAC # 2
4212 (2)
RAGAMAC # 3
4213 (2)
RAGAMAC # 1
4211 (2)
RAGAMAC # 4
4214 (2)
MORNING STAR
GRID
KJ-3
FOR SURE
4464 (8)
FORSURE
GRID
L JACK
4430 (7)
PROVINCE
OF
HALL
SLOCAN
Chapleau Creek Property
N
TERRA NOVA EXPLORATION
CONSULTANTS
Project Title
CHAPLEAU CREEK PROPERTY
KING JACK PROJECT
KING JACK RESOURCES LTD.
DATE·
Dec.,1991
SCALE·
1: 50 000
DRAWN BY·
B.V.Hall
PLATE NO. 2

1.4 Property History

During the early 1890's prospectors were quite active around Slocan Lake following the discoveries in the Sandon area. As a result of this activity, exploration and some production was achieved over a number of areas adjacent to and within the boundaries of the property. Plans were also laid out for a townsite near the junction of Lemon Creek and Monument Creek (Norris, J. 1985).

Some of the earliest work was on six old crown granted claims (Gladstone L.12083, Gladiator L.12088, Eagle L.12090, Monti L.12091, and the Bessie L.19092) known as the Hollinger Group. These claims were crown granted in the 1890's, but have since been cancelled and are now covered by the Ragamac #3 and Ragamac #4. Prior to 1938 a considerable amount of stripping, trenching and underground drifting had been completed.

Adjacent to the King Jack and Ragamac #3 claims are the Kilo Group (Violet, Kilo, Pansy and Kilo #2) and Rita crown granted claims. The Kilo Group has been developed by five tunnels and an inclined shaft since 1897. Ore shipments were also made in 1912, 1913 and 1938, but these were somewhat limited. Also at this time some development work was done on the Rose and Rita claims.

The Chapleau Group of crown granted claims (Chapleau, Seattle and Corker) located adjacent to the Ragamac #1 and 2 claims has also been worked since 1896. Also known as the Dornier claims, this property had a stamp mill with the ore being hauled by a tramline. From 1905 to 1935 this property was essentially dormant. Work resumed until 1941, then the property again became dormant. A road was built in 1946 and 1947, and one diamond drill hole was completed in 1981.

Adjoining the JCRK #2 claim to the south is the Crusader Group of crown granted claims. These were also explored and developed as early as 1896.

A mill and tramway was also built on the Piedmont property in 1927. This property is located immediately to the west of the Ragamac #1 and 2 claims and consists of the crown granted claim (Hope #2). This claim was explored and developed between 1898 and 1901, receiving intermittent production until 1951.

Also explored in the 1920's were the Jack and King George claims. These claims are now covered by the King Jack claim (staked by Bob McKenzie in 1975). Also covered by the King Jack claim is the Joan claim (formerly known as the Duplex). This claim was staked prior to 1901 and worked intermittently until 1946. Since 1984 the present owners (International King Jack Resources Ltd.) have made a number of improvements including access roads.

Previous to 1984 much of the present property was staked as the Brian 1, Brian 2, Strike 2 and Morning Star claims, but no work was recorded on these claims. In June of 1984 they lapsed and were restaked as the Ragamac #1 to 4, Forsure, JCRK #1 and 2 and the L Jack claims by Bob McKenzie, Lawrence Ransom and Roy Ganderton. In 1985 these claims along with the King Jack were optioned to King Jack Resources Ltd. (Santos, P.J. 1988).

In 1985 a program of mine rehabilitation, road building, trenching and soil sampling was completed by King Jack Resources Ltd. Further work consisting of soil sampling, geological mapping, rock sampling, underground rehabilitation, road construction and diamond drilling was completed between July 16, 1987 and February 15, 1988. Briefly, 30 surface diamond drill holes and 18 underground holes totalling 7,942 feet and 1,204 feet respectively were completed. A total of 64 km of grid lines and 33 km of contour lines were also soil sampled, representing 2,440 samples. Reconnaissance geological mapping was conducted on the Buenavista, Full house, and Forsure areas, along with some detailed mapping of the trenches and underground workings of the Buenavista, Hollinger, Goldstream, Full House and King Jack areas. Several of the old portals were cleared (Goldstream, King Jack #2, Hollinger and Buenavista) and a number of roads were either built or repaired (Santos, P.J. 1988).

Between July of 1988 and February 1989 additional road building and repairing, trenching, geological mapping, soil sampling, geophysics, diamond drilling and claim staking was carried out. The diamond drilling consisted of 35 holes totalling 7,408 feet. Twenty-one of these holes were drilled underground at the Chapleau Mine. The remainder were surface holes drilled on the King Jack (10 holes) and Forsure (4 holes). The rails at the Chapleau Mine were also reconstructed and three drill cut-outs were made in preparation for the underground drilling. A total of 486 additional soil samples were collected from grids established on the Morning Star, Forsure and Chapleau Mine areas. These grids totalled 25 line kilometres. Some geological mapping was also conducted on the Morning Star, Forsure and Chapleau areas. Sampling was also conducted on the Goldstream, Tail Holt and Chapleau veins, plus the Forsure Breccia (Santos, P.J. 1989). Petrographic work was also completed on the Forsure Breccia to determine depth potential of this vein system (Siems, P.L. 1989).

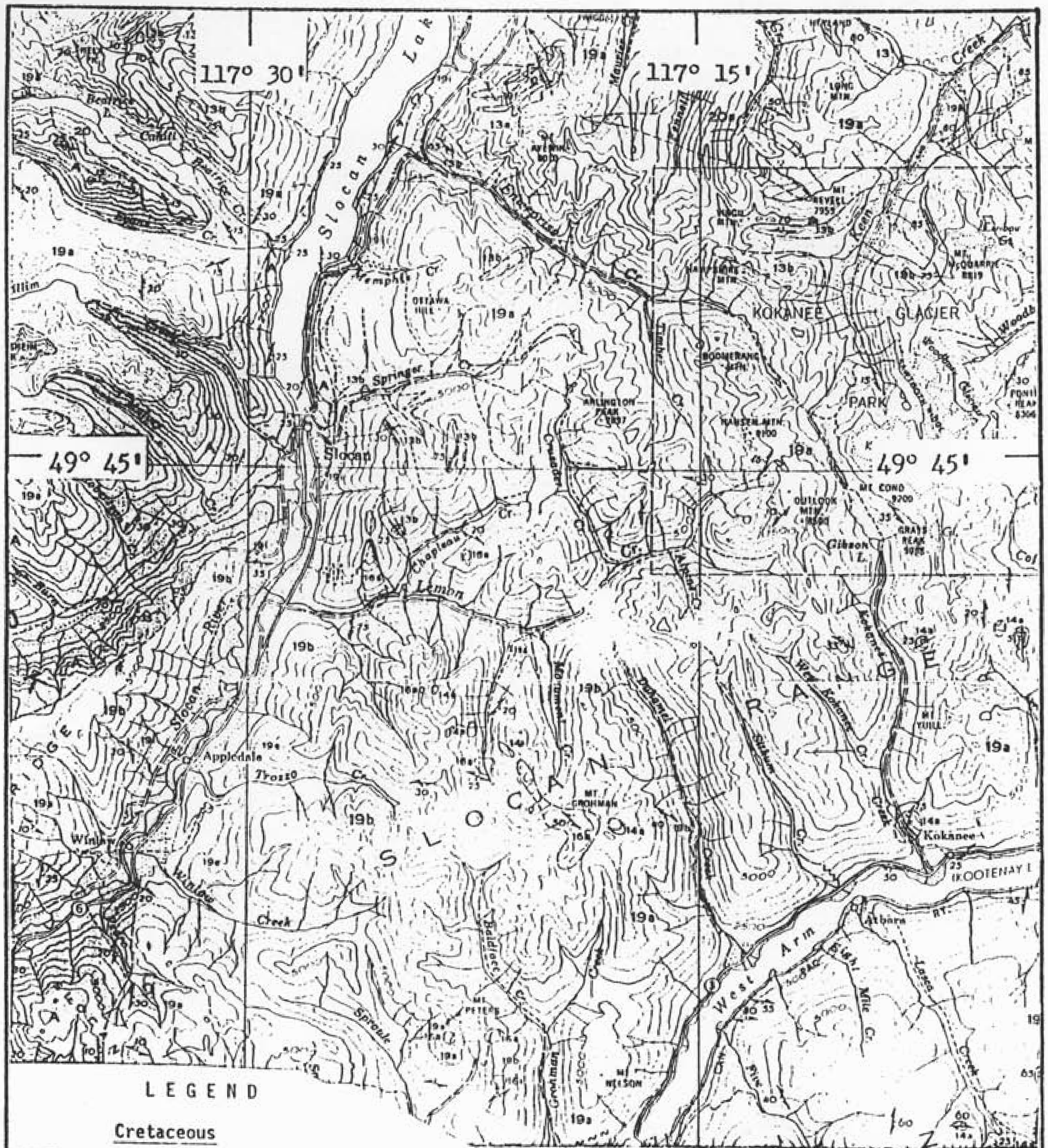
Since 1987 King Jack Resources has spent roughly $540,000 on the property. This work has advanced the status of this property considerably. The drilling on the Chapleau Mines has outlined a reserve of 34,200 tons grading 0.237 oz/ton gold and 5.66 oz/ton silver. Whereas the King Jack vein has been shown to contain 41,000 tons of indicated and possible ore grading 0.229 oz/ton gold and 2.33 oz/ton silver (Santos, P.J. 1989).

2. REGIONAL GEOLOGY

Regionally the property is located on the western edge of the Kootenay Arc within allochthonus rocks of the Quesnel Terrane. The region is dominated by late to post-tectonic I-type plutonic rocks of the Nelson Batholith which have intruded supracrustal rocks of the Mesozoic Slocan and Rossland groups. Easterly directed ductile and brittle fabrics representing the Valkyr and Slocan Lake Fault Zones are present. These are exposed along Slocan Lake and form the western contact of the Nelson Batholith (Brown, D.A. and Logan, J.M. 1989).

2.1 Stratigraphy

The supracrustal rocks in the area of the property consist mainly of the upper Triassic Slocan Group, plus the lower Jurassic Rossland Group.



LEGEND

Cretaceous

20	VALHALLA PLUTONIC ROCKS
19	NELSON PLUTONIC ROCKS

Jurassic

16	ROSSLAND FORMATION

Triassic

13	SLOCAN FORMATION

Permian and Pennsylvanian

A	MILFORD SERIES

N

Geology by H.W. Little, GSC Memoir 308
Map 1090A

TERRA NOVA EXPLORATION
CONSULTANTS

Project Title

GEOLOGIC MAP
LEMON CREEK AREA
Slocan Mining Division
B.C., Canada

PROFESSIONAL
PROVINCE OF
B. V. HALL
BRITISH COLUMBIA
GEOSCIENTIST

DATE ·	SCALE ·
Dec.,1991	1 in = 4 Mi
DRAWN BY · B.V.Hall	PLATE NO. 3

The Slocan Group is a thick accumulation of Carnian to Norian shale, argillite, siltstone, quartzite and minor limestone. These have been deformed and metamorphosed to varying degrees. To the north and east the bedding is generally concordant with the main contacts of the Nelson Batholith. Regionally the grade of metamorphism for the Slocan Group is relatively low, however within the batholith medium grade garnet-biotite schists are present. Further to the east along the west shore of Kootenay Lake the metamorphic grade increases such that kyanite and sillimanite are present. Although the structure and stratigraphy of the Slocan Group are somewhat enigmatic there does appear to be a facies change from a shale-argillite to a more silicic siltstone-sandstone proceeding from east to west, northeast of the property.

Also occurring as a series of roof pendants within the Nelson Batholith is the lower Jurassic Rossland Group. In general terms the Rossland Group consists of a series of metamorphosed volcanics and sediments. Tipper (1984) has divided the Rossland Group into three formations:

1) Archibald Formation -Sinemurian sedimentary rocks
2) Elsie Formation -lower Sinemurian volcanic rocks and
3) Hall Formation -Toarcian shallow-water siltstone, graywacke and conglomerate.

The volcanics of the Elsie Formation consist of andesite, latite, basalt, flow breccia, augite porphyry, agglomerate and tuff (Little, H.W. 1960).

Three episodes of intrusive activity are present beginning with early Jurassic intermediate porphyries which may be coeval with the Rossland volcanics, to the middle Jurassic Nelson plutonic suite, and culminating with some Tertiary dykes.

Comagmatic with the Rossland Volcanics are three varieties of feldspar porphyry and quartz latite porphyry. Also present at the Willa gold-copper-silver deposit is a pipe-like heterolithic intrusive breccia (Heather, K.B. 1985).

The Nelson Batholith occupies most of the Slocan area. It consists of six texturally and compositionally distinct phases which from oldest to youngest consist of:

1) diorite and/or amphibolite
2) potassium-feldspar granite
3) hornblende potassium-feldspar granite
4) fine-grained granite to granodiorite
5) quartz monzonite and
6) lamprophyre.

The diorites and/or amphibolites tend to occur as angular to rounded xenoliths, and likely represent inclusions of the Rossland Group Volcanics. The potassium-feldspar granites represent the dominant phase of the Nelson Batholith. These cover an area of roughly 550 square kilometres. More specifically this rock type is a medium- to coarse-grained hypidiomorphic granite which contains megacrysts of potassium feldspar. The fourth phase represents the Lemon Creek phase and is the dominant rock type on the property. It can be subdivided into a mesocratic and leucocratic variety. The two later phases consisting of a quartz monzonite (Alpine phase) and a biotite lamprophyre/diorite (Comstock phase) are present in relatively minor amounts. Uranium-lead and potassium-argon dates bracket the age of Nelson Batholith emplacement at between 100 and 172 Ma. Middle Jurassic dates of 105 and 169 Ma have also been obtained for zircon uranium-lead dates (Carr, S.D. et al 1987; Ghosh, D.K. 1986).

Intrusive rocks inferred to be Tertiary occur as narrow north to northwesterly striking steeply dipping dykes of rhyolite, felsite, andesite and lamprophyre. Commonly these dykes parallel the air photo linears (Brown, D.A. and Logan, J.M 1989).

2.2 Structure

Structurally the Slocan Group rocks can be divided into four distinct domains (Brown, D.A. and Logan, J.M. 1989). These are distinguished on the basis of structural style, intensity and attitude of major structures. The grade of metamorphism also decreases from east to west from the western boundary of Kootenay

Lake to Slocan Lake. Folds in some granitic sills near the Revenue Mine indicate some of the deformation is pre- to syn- tectonic with the Nelson Batholith. North of Kokanee Glacier Park three generations of folding have been observed. The oldest is a series of tight to isoclinal folds with a moderate southeasterly inclined axial plane. The next phase of folding is open and disharmonic, with the youngest phase representing a crenulation cleavage with a shallow west-southwest plunging fold axis and a subhorizontal axial plane.

Within the Nelson Batholith the oldest fabric is a primary flow alignment of the potassium feldspar and hornblende crystals. In attitude this tends to be coplanar with the metasedimentary and amphibolite lenses. Overall most of the Nelson Batholith is undeformed and post-tectonic. Exceptions to this include the southern and eastern margins which are quite deformed. Small zones of chlorite grade pro- to ultra-mylonite less than 50 cm wide occur throughout Kokanee Glacier Park. Other shear zones containing a left lateral sense of displacement are represented by steep northerly dipping mylonite zones. Also hosting the Silver Ranch quartz vein mineralization is fracture zone that has been altered for approximately 50 feet. This fracture zone trends north to northwesterly like many of the major fault zones within the park (Brown, D.A. and Logan, J.M. 1989).

Located along the eastern margin of Slocan Lake is the Slocan Lake Fault, one of the largest structures in southeastern British Columbia. This fault represents a shallow easterly dipping detachment zone which can be traced for at least 150 km. It juxtaposes ductilely deformed and retrograded lower plate granitoid units against brecciated, fractured and hydrothermally altered rocks of the Nelson Batholith in the upper plate (Parrish, R. 1984). The age of this structure appears to be Eocene and the sense of displacement easterly (Parrish, R.R. et al 1988). This structure can also be traced for a depth of at least 25 on the basis of seismic information (Cook, F.A. et al 1988). Responsible for the Slocan Lake Fault Zone is a period of Eocene extensional tectonics cretaceous to Eocene structures and cooling ages have been superimposed on a number of high grade gneiss complexes, such as the Valhalla located immediately to the east of Slocan Lake (Parrish, R.R. et al 1988).

2.3 Mineral Deposits

The area surrounding Slocan Lake contains three distinct and historic mining camps (Sandon, Ainsworth and Slocan City).

The Sandon Camp is perhaps the best known occurring roughly midway between New Denver and Kaslo. This camp is characterized by mesothermal vein deposits which are hosted by sediments of the

Slocan Group. These veins are generally lead and zinc rich with a siderite and quartz gangue. In terms of size they average between 10,000 and 100,000 tonnes. From 172 producers 3.5 million tonnes of material was produced which yielded 1,814 tonnes of silver and 217,464 tonnes of lead with the zinc records being incomplete. Today only the Dickenson Mine remains in production.

In the Ainsworth Camp located roughly 40 km east of the property a number of strata-bound replacement bodies are present. These orebodies are generally hosted by Paleozoic to Mesozoic metasedimentary and metavolcanic rocks. Production of approximately 700,000 tons from 75 producers yielded 177 tonnes of silver and 55,123 tonnes of lead with the zinc records being incomplete.

In Slocan City Camp which hosts the property discussed in this report consists of a series of mesothermal quartz veins which are enriched in gold. These are hosted by various phases of the Nelson Batholith. Generally these veins are low in base metals and relatively enriched in silver. Total production of 78,000 tonnes from 72 producers has yielded 154 tonnes of silver and 3,531 tonnes of lead (Brown, D.A. and Logan, J.M. 1989).

Typical of the mesothermal veins of the Slocan City Camp is the Enterprise and Westmont vein systems. located four km west of Kokanee Glacier Park. Over an 81 year period (1896 - 1977) the

Enterprise vein produced 10,687 tonnes of material grading 3,057 grams/tonne silver, 15.67% lead, and 9.89% zinc. The Westmont Vein produced 3,149 tonnes of ore which graded 0.65 grams/tonne gold, 3,519 grams/tonne silver, 6.35% lead and 2.09% zinc. Two parallel veins outcrop on the Enterprise property, the eastern being the more historically important. This vein has been traced for over 680 m and has been developed over a vertical distance of 300 m. Zoning within this vein indicates quartz decreases downward into a carbonate-rich siderite and calcite mineralogy. The sulphide assemblages also change from galena and tetrahedrite to more sphalerite-rich at depth.

At the Westmont property the main lode strikes at 060° and dips 75° to the southeast. In width it averages 1.2 m and consists of a zone of brecciated and silicified country rock. The sulphide mineralogy consists of galena, sphalerite, pyrite, tetrahedrite and silver sulphosalts. The host rock at both the Enterprise and Westmont is a potassium feldspar megacrystic granite.

The Alpine Mine situated at the southwestern corner of Kokanee Glacier Park represents the more gold rich vein types of Slocan City Camp. Between 1915 and 1948 15,551 tonnes of material was mined which yielded 22.9 grams/tonne gold, 14.2 grams/tonne silver, 0.31% lead and 0.11% zinc. This vein strikes at 75°, dips moderately to the north and has traced for over 400 m. It averages 1.1 m wide and is hosted by a fine to medium grained quartz monzonite. The contacts with the hanging wall and footwall monzonite are sharp and variably sericitized. Vein textures are massive crystalline, ribboned, banded or vuggy. The quartz is also variably milky, white, grey and colourless suggesting episodic deposition. The mineralization comprises of electrum, silver, minerals, pyrite with lesser galena and sphalerite (Brown, D.A. and Logan, J.M. 1989).

3. FORSURE BRECCIA GRID

Discovered in a road outcrop, the Forsure Breccia zone closely resembles an epithermal vein system in appearance. Petrographic studies (Siems, P.L. 1989) of the wall rock alteration surrounding this vein system suggest the possibility of encountering gold mineralization at depth. Four drill holes (FS88-1, 2 and 3; FS89-1) tested this zone at a relatively shallow depth. These failed to encounter any significant gold values. Since this structure was quite wide and known to extend beyond the area of the 1988 and 1989 diamond drilling it was decided to trace this vein system to the north to see if there was any change in the gold values. Also present in the area of this year's mapping is a pronounced soil anomaly for copper, silver, lead and zinc (Santos, P.J. 1989).

For the purposes of mapping a flag line grid consisting of 2.1 km was established. A claim line located at 6 + 50E was used for a base line with 350 m long cross lines every 50 m beginning at L9 + 50E. Over this grid a total of 41 rock samples were collected and 80 outcrops mapped. The scale of this mapping was 1:1,500. The steepness of the terrain plus a small accumulation of snow prevented extending this grid further to the north.

3.1 Stratigraphy and Lithology

The Forsure grid is underlain entirely by plutonic rocks of the Nelson Batholith. With the exception of the quartz veins three main rock types are present on the grid. These consist of a fine-grained granite, a coarse-grained granite and a pegmatite.

The oldest rock types on the grid are the fine-grained granites (Jgf). This rock type represents the Lemon Creek Phase and is light grey to buff, fine-grained and generally equigranular. The quartz content is roughly 25% and 5-10% biotite is present. Some secondary muscovite is also present. In addition some outcrops in the vicinity of L9 + 50N, 8 + 00E display a faint alignment of the biotite grains.

A series of coarse-grained (Jgc) is found to intrude the fine-grained granites (Jgf) in an irregular fashion. This rock type is generally buff to light grey, equigranular, leucocratic and medium to coarse-grained. Hornblende and biotite generally constitute 2% of the rock. In appearance this rock type closely resembles the Alpine Phase, and is found crosscutting the fine-grained granites of the Lemon Creek Phase. Based upon the geological mapping the coarse-grained granites appear to be most prevalent in the northern half of the grid.

Crosscutting both the coarse-grained granites (Jgc) and the fine-grained granites (Jgf) in a northeasterly fashion are a series of pegmatites (Jpg). These pegmatites are very coarse-grained consisting predominantly of very large grains of orthoclase 1 - 7 cm long. Individually these pegmatites are 10 to 100 cm wide and irregular in outline. Associated with a number of these pegmatite dykes are veins of quartz. These quartz veins are distinctive in that they are not vuggy. Where present the pegmatite dykes occupy two, possibly three northwesterly trending zones which are roughly 10 to 15 m in width.

3.2 Structure

Based upon this past year's geological mapping the structural grain to the Forsure Grid appears to be northeasterly. The quartz vein representing the Forsure Breccia consistently strikes between 17 and 35 degrees east of north as does the general trend of the pegmatite dykes. Both these rock types may be injecting along a pre-existing structure, or zone of weakness. In particular the vein system representing the Forsure Breccia may be indicating a pre-existing fault zone. Several of the larger creeks in the area such as Jack Creek trend north-northeasterly.

As for the small scale structures only the faint alignment of the mafic minerals in the fine-grained granite (Jgf) located about L9 + 50N, 8 + 00E was observed. However this could be either a primary feature related to direction of flow or it could be signifying the margin of emplacement.

3.3 Mineralization

On the Forsure Grid the main mineralized zone are two northeasterly trending quartz vein systems. Consistently these zones are 10 to 15 m wide and based upon some previous mapping, plus this last year's work the southeasternmost of these vein systems can be traced for at least 900 m. Based upon attitudes obtained in outcrop the strike of this vein system is consistently between 17 and 30 degrees east of north with the dip varying from 60 to 90 degrees to the southeast.

In appearance these vein systems consist of a central core of massive milky quartz which is ribboned. Generally these zones are between 1.0 and 3.0 m wide. Enveloping the more central zone of larger quartz veins is a breccia zone consisting of angular rock fragments of granite and quartz vein material. The quartz veins that surround these rock fragments are generally ribboned and quite vuggy constituting more than 50% of the rock. These rock fragments consist of granitic material of the Nelson Batholith. These have been severely altered such that they are quite white and powdery. The mafic minerals such as biotite and hornblende have been obliterated with the feldspars being completely altered to a white phyllosilicate. This zone grades outward into a peripheral zone where the alteration and degree of quartz veining is less intense. Quartz veins in this zone are generally less than 5 cm wide and constitute less than 10% of the rock.

Considering only the central quartz vein zones and the enveloping quartz breccia zones the Forsure vein system is consistently between 10 and 15 m thick. However if the peripheral zone of quartz veining an alteration is considered then the width of the entire zone is about 50 m.

All the quartz veins consist entirely of chalcedonic quartz. With the exception of one speck of pyrite, sulphides are completely lacking from this vein system.

A petrographic and X-ray diffraction study (Siems, P.L. 1989) of similar material obtained from drill core from the Forsure Breccia indicated three distinct forms of alteration, the first being a low-intensity partial replacement of biotite by chlorite. The next two appear to be more directly related to the quartz veining. These consisted of a more intensive carbonate-sericite alteration and a silicic alteration. The carbonate-sericite alteration is both pervasive and veinlet controlled in style. Although the type of carbonate has not been positively identified it is likely carbonate, whereas the sericite is likely a mixture of muscovite and illite plus some other closely related species. Some sulphide minerals were observed and these consisted mostly of pyrite, with minor amounts of chalcopyrite and molybdenite. The silicic alteration appears to overprint the earlier alteration types consisting of quartz and a minor amount of chalcedony. The alteration styles are open-space and veinlet controlled, with minor amounts of carbonate and sericite accompanying the quartz. Brecciation has occurred with the fragments consisting of carbonate-sericite and chlorite altered granite, plus quartz or chalcedony and the matrix consisting of quartz with a minor amount of carbonate.

A total of 31 rock samples were collected from the main portion of the more southerly of these veins in between L9 + 50N and L12 + 00N. All of these samples were chip samples representing four cross sections through this vein system. They were all analyzed geochemically for gold and found to contain only trace amounts.

A further five samples were collected from quartz veins peripheral to the main vein system (91BR-602, 604, 615, 652 and 635). These were also found to be of background levels.

The remaining samples (91BR-618, 646, 662, 663 and 664) were collected from small quartz veins associated with the pegmatite dykes. These were again of background levels.

3.4 Stream Sediment Geochemistry

A total of three silt samples were collected from Jack Creek along a 600 m interval. These samples were analyzed for a suite of 31 major and trace elements. The purpose behind the soil sampling was to confirm the anomalous nature of anomalies FS-1 and 2. Both these anomalies were found to be significantly elevated in Ag, Pb, Zn and Cu (Santos, P.J. 1989).

With the exception of samples 91BR-620 and 641 which were slightly anomalous for zinc (220 and 200 ppm) all the remaining values were only of background levels.

4. MORNING STAR GRID

Located on this grid is one of the oldest underground workings on the property. Several parallel massive sulphide veins occur in a roof pendant of Rossland Volcanics. These veins consist mostly of pyrrhotite, with stringers of galena, sphalerite and chalcopyrite.

Associated with the underground workings is a pronounced soil anomaly for zinc, arsenic, copper, lead and silver. Zinc produced the largest anomaly, extending off the grid to the east and west, a distance of 1,000 m, with the values ranging up to 2,330 ppm. Also present was a VLF conductor which ran through the area of the underground workings in a southeasterly fashion, plus several scattered highs for the magnetometer data (Santos, P.J. 1989).

The rocks surrounding the Morning Star adit had never been geologically mapped. In addition this area was the lowest major showing in elevation and hence the most likely to remain free of snow the longest. Consequently it was decided to conduct a geological mapping project in this area. The existing grid was found to be in adequate condition although many of the pickets had fallen over. The geological mapping was concentrated on the lines north of the base line where the geochemical and geophysical anomalies were present. In total 23 outcrops were mapped and three rock samples were collected before a heavy snowfall forced an end to the project.

4.1 Stratigraphy and Lithology

The area of mapping that was completed this past year indicated two main rock types. In the extreme northern part of the grid adjacent to a logging road outcrops of the Rossland Group Volcanics are present, whereas over the remainder of the grid plutonic rocks of the Nelson Batholith exist.

The oldest rocks on the grid are represented by a series of amphibolites (Jma) present in outcrop 91BR-704. These appear to represent the Rossland Volcanics and consist of a series of lenses which are enclosed by granite and average 2.0 m in width. These lenses generally parallel the F_1 foliation at 117/515. In part defining the F_1 foliation are a series of faintly developed mesocratic and quartzo-feldspathic layers.

The next oldest rock type is a dioritic gneiss (Jdg) located at L5 + 60W, 22 + 95N (outcrop 91BR-716). This outcrop consists of a mesocratic diorite, which is well foliated and possibly represents a large xenolith. It is also possible that this rock type could represent a more metamorphosed version of the Rossland Volcanics.

The dominant rock type on the grid is a series of porphyritic granites (Jgp) of the Nelson Batholith. This rock type is a potassium-feldspar megacrystic, medium- to coarse-grained hypidiomorphic granite. It contains up to 50% white to faintly pink euhedral, equant to prismatic potassium feldspar megacrysts. These megacrysts are up to 10 cm long and are locally flow aligned. They are also microperthitic to perthitic and sometimes contain inclusions of biotite, hornblende, plagioclase and quartz. Mafic minerals such as biotite and hornblende comprise up to 15% of the rock, and are generally unaltered.

Located in the vicinity of L5 + 25W, 24 + 75N is a coarse-grained granite which is lacking the potassium feldspar megacrysts (Jgc). This rock is a coarse-medium grained, equigranular and hypidiomorphic granite to possibly a granodiorite. Biotite and hornblende constitute up to 15% of this rock type and are commonly unaltered. Another conspicuous feature of this rock type is the alignment of the mafic minerals.

The youngest rock type on the property is a series of pegmatite dykes (Jpg). These dykes are up to 30 cm wide, consist entirely of potasssium feldspar and quartz and crosscut the older rocks in an irregular fashion. In general they are most prevalent in a northwesterly trending zone centred about L5 + 25W, 25 + 00N.

4.2 Structure

Aside from the presence of two possible xenoliths of Rossland Group Volcanics there were no significant structures observed on the grid. The foliation in outcrop 91BR-706 suggests these structures are aligned at 117/51S.

4.3 Mineralization

Unfortunately a heavy snowfall prevented the mapping of the mineralization of the main adit area. Consequently only a few outcrops of interest were noted, of which all were sampled and found to contain background concentration of gold (1 to 2 ppb).

The first occurred at L6 + 25W, 25 + 80N and is represented by outcrop 91BR-704. Enclosed in a 1 - 2 m wide zone of amphibolites was 2 - 3 disseminated pyrite. A second amphibolite zone occurs 3 m below the first. This lower volcanic zone contains a 10 cm wide quartz vein which contains 1% disseminated pyrite and trace amounts of sphalerite.

The next sample (91BR-710) represented a piece of float consisting of a clay altered granite which was crosscut by a quartz vein, whereas the last sample (91BR-714) consisted of a 30 cm wide quartz vein which was faintly ribboned. The attitude of this quartz vein is horizontal and the host rock is a porphyritic granite.

5. CONCLUSIONS AND RECOMMENDATIONS

Based upon the geological mapping carried out this past year the Forsure Breccia actually represents two large quartz vein systems. Enveloping a central quartz vein system is a border zone of brecciated rock fragments which are enclosed by vuggy quartz veins. Surrounding this breccia zone is a peripheral zone of sericite and/or clay alteration plus minor quartz veins. In width the central zone consisting of massive quartz, plus the bordering breccia zone, ranges from 10 to 15 m thick. Based upon this year's mapping plus some earlier mapping, both veins which comprise the Forsure Breccia strike north-northeasterly and dip steeply to the east. To date the southeasternmost of these two veins appears to be the longest, having been outlined for at least 900 m. To the north and the south this vein system remains open; consequently further mapping is required.

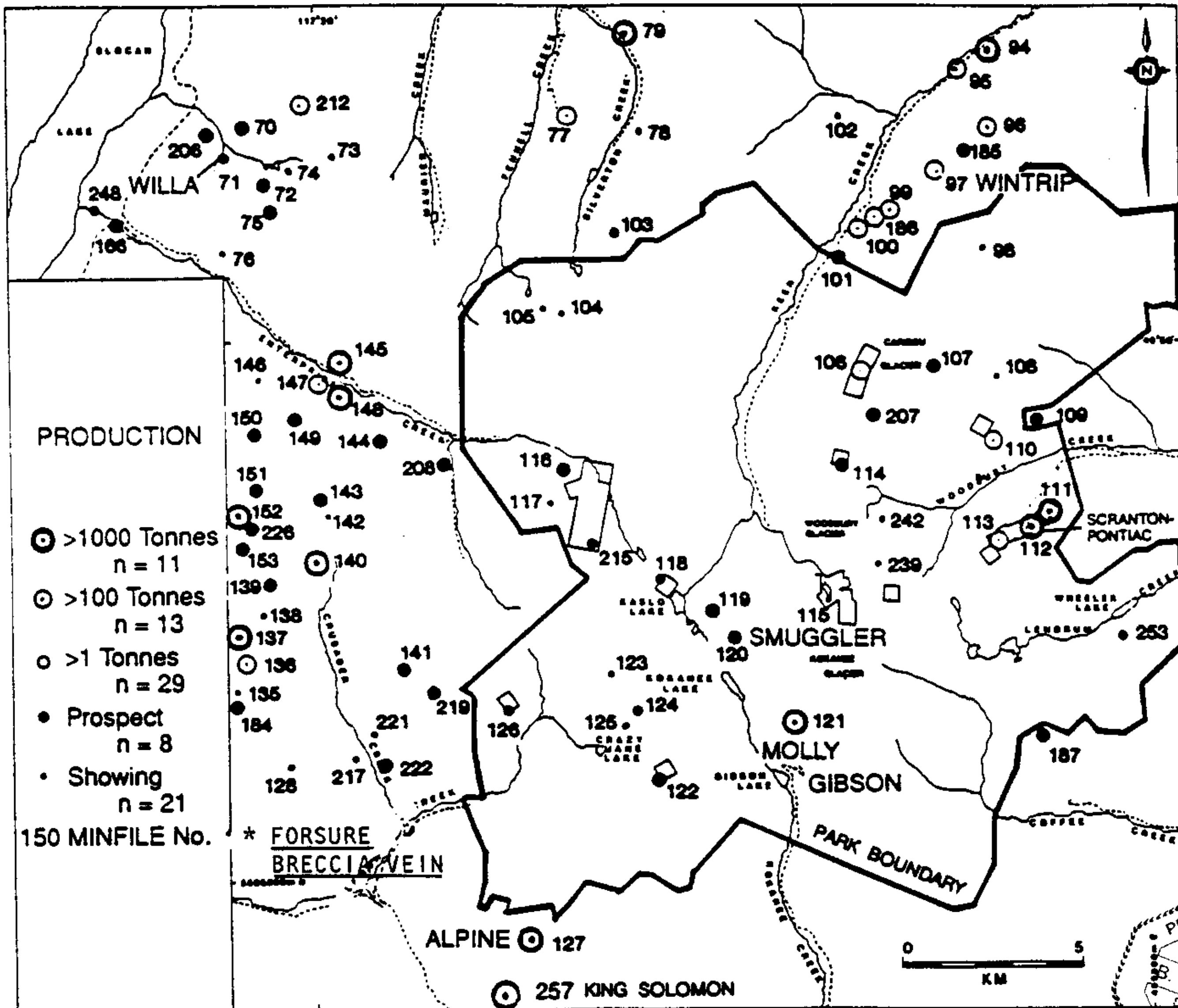


FIGURE 6. MINERAL OCCURRENCES IN THE KOKANEE GLACIER PARK AREA
(Numbers refer to MINDEP FILE)

In appearance these quartz veins closely resemble an epithermal system. The mineralogy of the wall rock alteration associated with this vein system is also conducive for epithermal mineralization (Siems, P.L. 1989). Drilling in 1988 and 1989 intersected both vein systems. Assays for gold from this drilling were uniformly of background levels. Channel samples were taken across this vein system in a number of locations this past year. In all, none of these samples exceeded 3 ppb gold. No sulphide minerals were also observed in the area of this vein although a pronounced copper, lead, zinc and silver anomaly is found in the soil samples along the projected surface trace (Santos, P.J. 1989).

Regionally immediately to the north of the property an important series of mineral occurrences exist. The Chapleau Creek Property and in particular the Forsure Breccia appear to represent the southerly extension of this mineralized trend (see Figure 6), especially when the northerly strike of the Forsure vein systems is taken into account.

Consequently further mapping is recommended for the Forsure Breccia vein system. The mapping should continue from L12N to the northern boundary of the property. Sampling of this vein should also be carried out in a systematic manner every 100 m. The cost of this work would be roughly $5,000 including establishing a flag line grid.

On the Morning Star Grid the geological mapping should be completed over the entire northern portion of the grid. The line spacing should be at 50 m. In addition soil sampling at 25 m intervals should be completed on all the 50 m lines. This soil sampling will substantially aid in defining the anomalous areas previously defined by the 1988 soil sampling (Santos, P.J. 1989). Once the geological mapping and soil sampling is completed, a trenching program would be the next logical step. The cost of the soil sampling and geological mapping, inclusive of the additional soil sampling, would be roughly $5,000.

Brian V. Hall, M.Sc.,P.Geo.
December 24, 1991

PROFESSIONAL
PROVINCE OF
HALL
GEOSCIENTIST

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APPENDIX A

ANALYTICAL METHODS

A. ANALYTICAL METHODS

A-1 Rock Samples

For the rock samples either grab or chip samples were collected. The grab samples were generally collected to achieve an approximation as to what sort of values a particular type of mineralization could produce. In general this type of sample consisted of one to ten representative pieces which totalled 0.5 to 2.0 kg in weight. Often the weathered surfaces were not totally removed also.

The chip samples were commonly taken across portions of some of the larger veins. Samples of this sort generally consisted of at least five pieces of rock, all of which were roughly the same size. These rock chips were generally collected in a straight line, and perpendicular to the strike of the mineralization. Generally the weathered surfaces are also removed.

Upon collection the samples were placed in heavy plastic bags and sent to Acme Analytical Laboratories Ltd. of 852 East Hastings Street, Vancouver, B.C. At Acme Analytical the samples were first pulverized to minus 150 mesh using jaw breakers, then a shutter box. Using a 10.0 g portion of the minus 150 mesh material the gold was digested with aqua-regia and further concentrated using MIBK. The resulting solution was then analyzed by atomic absorption using a graphite furnace. The absolute amounts were then determined by comparing the data to those of prepared standards.

A-2 STREAM SEDIMENT SAMPLES

The stream sediment samples were all collected from the active portions of the channels at a minimum of four different locations. The samples were also taken from the lower energy portions of the streams to ensure as much consistency as possible.

Once collected the samples were placed in high-strength Kraft paper envelopes and field dried for approximately one week. They were then sent to Acme Analytical Laboratories Ltd. of 852 East Hastings Street, Vancouver, B.C.

At Acme Analytical the samples were first dried overnight, then sieved to minus 80 mesh. For the ICP (Inductivity Coupled Argon Plasma) analysis of 30 minor and major elements a 0.500 g portion of the minus 80 mesh material was first dissolved in 3 ml of aqua-regia (3-1-3 $HCl-HNO_3-H_2O$) for one hour at 95° C. The resulting solution was then diluted to a volume of 10 ml with distilled water and analyzed using ICP. The results were then compared to prepared standards for the determination of the absolute amounts.

For the gold analysis a 10.0 gram portion of the minus 80 mesh material was analyzed in the same manner as the rock samples.

APPENDIX B

DESCRIPTION OF ROCK SAMPLES SUBMITTED FOR ANALYSIS

SAMPLE	LOCATION	DESCRIPTION
FORSURE BRECCIA GRID		
91BR-602	L5 + 90N 6 + 45E	Grab sample of float consisting of vuggy quartz veins up to 5 cm wide, some fragments of brecciated host rock included in vein, host rock is a fine-grained granite
91BR-604	L7 + 95N 6 + 45E	Grab sample of float consisting of alloy altered granite, which hosts a number of quartz veins, some of which are vuggy
91BR-608A	L9 + 40N 6 + 50E	Chip sample 75 cm wide of a clay altered fine-grained granite which contains 30% quartz veins in a stockwork
91BR-608B	immediately to the east of 91BR-608A	Chip sample 75 cm wide of a clay altered fine-grained granite which contains 50% quartz veins up to 20 cm wide
91BR-608C	immediately to the east of 91BR-608B	Chip sample 1.0 m wide of a clay altered (kaolinite) fine-grained granite which hosts 50% quartz veins some of which are vuggy
91BR-608D	immediately to the east of 91BR-608C	Chip sample 1.0 cm wide of a 50 cm wide quartz vein trending 28/69E, host rock is a clay altered granite which hosts several small quartz veins
91BR-609A	L9 + 50N 6 + 60E	Chip sample 1.0 cm wide which contains 10% quartz veins, remainder clay (kaolinite?) altered fine-grained granite, quartz veins orientated at 172/60E
91BR-609B	immediately to the east of 91BR-609A	Chip sample 1.0 cm wide, same as sample BR-609A
91BR-609C	immediately to the east of 91BR-609B	Chip sample 1.0 m wide consisting of 70% quartz, host rock is a clay altered (kaolinite) fine-grained granite

SAMPLE	LOCATION	DESCRIPTION
91BR-609D	immediately to the east of 91BR-609C	Chip sample 1.0 m wide consisting of 70% quartz, host rock is a clay altered (kaolinite) fine-grained granite
91BR-609E	immediately to the east of 91BR-609D	Chip sample 1.0 m wide consisting of 10% quartz veins, host rock is a clay altered fine-grained granite
91BR-609F	immediately to the east of 91BR-609E	Chip sample 1.0 m wide, same as sample 91BR-609E
91BR-614A	L10 + 10N 6 + 95E	Chip sample 1.0 m wide, milky quartz, some vuggy portions
91BR-614B	immediately to the east of 91BR-614A	Chip sample 1.0 m wide, milky quartz, some vuggy portions
91BR-614C	immediately to the east of 91BR-614B	Chip sample 50 cm wide of a milky quartz vein, some vuggy portions. Note: vein continues to east, too steep.
91BR-615	L9 + 85N 7 + 10E	Chip sample from a 5 cm wide quartz vein which is vuggy and brecciated, host rock is a fine-grained granite which is clay-altered
91BR-618	L10 + 05N 9 + 02E	Grab sample from a coarse-grained granite that contains a 5 cm wide quartz vein. Note: adjacent to this vein the biotite is missing.
91BR-634A	L11 + 05N 7 + 50E	Chip sample 1.0 m wide consisting of clay-altered (kaolinite) fine-grained granite that contains a series of vuggy quartz veins
91BR-634B	immediately to the east of 91BR-634A	Chip sample 1.0 m wide of a massive milky quartz vein with some vuggy portions
91BR-634C	immediately to the east of 91BR-634B	Chip sample 1.0 m wide of a massive milky quartz vein, which is vuggy in places

SAMPLE	LOCATION	DESCRIPTION
91BR-634D	immediately to the east of 91BR-634C	Chip sample 1.0 m wide, massive quartz with 15% altered fine-grained granite clasts
91BR-634E	immediately to the east of 91BR-634D	Chip sample 1.2 m wide same as sample 91BR-634D
91BR-634F	immediately to the east of 91BR-634E	Chip sample 1.2 m wide same as sample 91BR-634D
91BR-634G	immediately to the east of 91BR-634F	Chip sample 1.0 m wide same as sample 91BR-634D
91BR-634H	immediately to the east of 91BR-634G	Chip sample 1.0 m wide same as sample 91BR-634D
91BR-634I	immediately to the east of 91BR-634H	Chip sample 1.5 m wide same as sample 91BR-634D
91BR-635	L10 + 95N 7 + 60E	Grab sample of a faintly altered granite which contains a series of quartz veins 2 - 5 cm wide which are vuggy
91BR-646	L10 + 50N 8 + 18E	Grab sample of a fine-grained granite, faintly foliated, which contains a 4 cm wide quartz vein which is milky and ribboned
91BR-652	L10 + 60N 6 + 75E	Grab sample of a fine-grained granite that is crosscut by a series of vuggy quartz veins 3 - 7 cm wide
91BR-659A	L10 + 60N 7 + 90E	Chip sample 1.0 m wide of massive milky quartz which contains some vuggy portions and granite breccia which are altered to kaolinite
91BR-659B	immediately to the east of 91BR-659A	Chip sample 1.2 m wide of a massive quartz vein, milky and vuggy, some kaolinite altered granite fragments
91BR-659C	immediately to the east of 91BR-659B	Chip sample 1.5 m wide, same as sample 91BR-659B

SAMPLE	LOCATION	DESCRIPTION
91BR-659D	immediately to the east of 91BR-659C	Chip sample 1.0 m wide, same as sample 91BR-659B
91BR-659E	2.0 m to the east of 91BR-659D	Chip sample 1.0 m wide, same as sample 91BR-659B
91BR-659F	immediately to the east of 91BR-659E	Chip sample 1.5 m wide, same as sample 91BR-659B
91BR-659G	immediately to the east of 91BR-659F	Chip sample 1.0 m wide, same as sample 91BR-659B
91BR-659H	5 m north of 91BR-659G and 3 m to the east	Chip sample 1.0 m wide, same as sample 91BR-659B
91BR-659I	immediately to the east of 91BR-659H	Chip sample 1.0 m wide, same as sample 91BR-659B
91BR-662	L11 + 90N 9 + 12E	Grab sample of a granitic pegmatite, which has an altered appearance and contains quartz-K spar veins up to 10 cm thick
91BR-663	L12 + 00N 9 + 15E	Grab sample of a granitic pegmatite, which hosts a 5 cm wide quartz vein orientated at 13/44W
91BR-664	L12 + 00N 9 + 60E	Grab sample of fine-grained granite which hosts a 5 cm wide quartz vein 35/20W

MORNING STAR GRID

91BR-704	L6 + 25E 25 + 90N	Grab sample of mafic volcanic which contains 2 - 3% fine-grained disseminated pyrite
91BR-710	L5 + 00E 24 + 20N	Grab sample of a clay-altered piece of granite float, which is crosscut by some quartz veins
91BR-714	L5 + 25E 22 + 95N	Grab sample of a porphyritic granite which contains a 30 cm wide quartz vein which is faintly ribboned (horizontal)

APPENDIX C

ROCK AND SILT SAMPLE ANALYSES

PHONE(604)253-3158 FAX(604)253-1716

GEOCHEMICAL ANALYSIS CERTIFICATE

Brian V. Hall FILE # 91-5297 Page 1
R.R. -1 L-9, Bowen Island BC V0N 1G0

SAMPLE#	Au* ppb
91BR 602	2
91BR 604	2
91BR 608a	2
91BR 608b	1
91BR 608c	1
91BR 608d	1
91BR 609a	2
91BR 609b	1
91BR 609c	1
91BR 609d	1
91BR 609e	2
91BR 609f	2
91BR 614a	1
91BR 614b	1
91BR 614c	3
91BR 615	1
91BR 618	1
91BR 634a	1
91BR 634b	1
91BR 634c	1
91BR 634d	1
91BR 634e	1
91BR 634f	1
RE 91BR 634b	1
91BR 634g	1
91BR 634h	1
91BR 634i	1
91BR 635	1
91BR 646	1
91BR 652	1
91BR 659a	1
91BR 659b	1
91BR 659c	1
91BR 659d	1
91BR 659e	2
91BR 659f	1
91BR 659g	1
STANDARD AU-R	460

- SAMPLE TYPE: P1 TO P2 ROCK P3 SILT
AU* ANALYSIS BY ACID LEACH/AA FROM 10 GM SAMPLE.
Samples beginning 'RE' are duplicate samples.

DATE RECEIVED: OCT 29 1991 **DATE REPORT MAILED:** Nov 4/91.

SIGNED BY C. Leong ....D.TOYE, C.LEONG, J.WANG; CERTIFIED B.C. ASSAYERS

SAMPLE#	Au* ppb
91BR 659h	3
91BR 659i	1
91BR 662	1
91BR 663	1
91BR 664	1
RE 91BR 663	1
91BR 704	2
91BR 710	1
91BR 714	2
STANDARD AU-R	480

Sample type: ROCK. Samples beginning 'RE' are duplicate samples.

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
91BS 601	1	5	24	121	.1	4	3	477	1.45	2	12	ND	15	22	.5	2	2	12	.32	.047	26	8	.28	34	.05	2	.69	.02	.10	1	1
91BS 620	1	8	35	220	.3	7	4	678	1.83	2	90	ND	8	75	1.4	2	2	19	1.02	.073	47	18	.40	58	.06	2	1.02	.01	.13	1	2
91BS 641	1	6	23	200	.1	7	5	650	2.35	2	27	ND	11	51	.8	2	2	23	.67	.086	45	16	.52	57	.10	2	1.19	.02	.15	1	1
RE 91BS 601	1	3	19	112	.1	3	3	449	1.40	2	12	ND	14	22	.3	2	2	11	.31	.047	25	7	.27	32	.05	2	.65	.02	.10	1	1

Sample type: SILT. Samples beginning 'RE' are duplicate samples.
AU* ANALYSIS BY ACID LEACH/AA FROM 10 GM SAMPLE.

APPENDIX D

COST STATEMENT

COST STATEMENT

<u>Wages</u>

George Zbitnoff (Project Manager) October 1, 1991 1 day @ $300/day	$ 300.00
Brian V. Hall (Geologist) October 17 - 25, 28 (½), 1991 November 2 (½), 1991 December 21, 22, 23 (½), 1991 12½ days @ $300/day	3,750.00
Bob McKenzie (Prospector) 7 days @ $100/day	700.00
Total	$4,750.00

<u>Rentals</u>

1988 GMC 3/4 ton 4 x 4 October 17 - 25, 1991 9 days @ $75/day	$ 675.00

<u>Assays and Analyses</u>

39 Rock samples analyzed for gold @ $10.43/sample	$ 406.71
3 stream sediment samples analyzed for 30 element ICP and gold @ $15.89/sample	47.67
Total	$ 454.38

Fuel	$ 318.74
Food and Accommodation	678.40
Telephone	49.30
Field Supplies	113.84
Typing and Drafting (estimated)	250.00
GST	$ 309.20
GRAND TOTAL	$7,598.86

APPENDIX E

STATEMENT OF QUALIFICATIONS

STATEMENT OF QUALIFICATIONS

I, Brian V. Hall of RR-1, Bowen Island, British Columbia do certify that:

1) I am a graduate of the University of British Columbia (B.Sc., 1975) and the University of Waterloo (M.Sc., 1978) in geology.

2) I have practised my profession for the past 13 years since my graduation from the University of Waterloo.

3) I am a Fellow of the Geological Association of Canada, member of the Society of Economic Geologists, and a registered member of the Association of Professional Engineers and Geoscientists (P.Geo.).

4) I am currently a very small shareholder of International King Jack Resources Ltd.

Brian V. Hall, M.Sc., P.Geo.
December 24, 1991


N
FORSURE
256057
KJ-3
256553
Jga
Jgf
Jgc
Tqv
Tqa
Tpg
Jpg
4000
3900
3800
3700
3500
3400
3300
3200
3100
3000
L12+00N
L11+50N
L11+00N
L10+50N
L10+00N
L 9+50N
9N
8N
7N
6N
5N
7E
8E
9E
10E
LCP
FS-88-3
FS-89-1
FS-88-1
FS-88-2
JACK CREEK
CORE STORAGE
LEGEND:
TERTIARY?
Tqv QUARTZ VEIN / BRECCIA
Tqa SERICITE ALTERATION (MINOR QUARTZ VEINS)
NELSON BATHOLITH
JURASSIC
Jgf GRANITE (FINE GRAINED, FAINTLY FOLIATED) equivalent to Lemon Creek Phase.
Jgc GRANITE (COARSE GRAINED) equivalent to Alpine Phase.
Jpg PEGMATITE (ORTHOCLASE AND QUARTZ, MINOR QUARTZ VEINS)
JOINTING (inclined, vertical)
VEIN or DYKE (inclined, vertical)
CONTACT (abrupt, gradational)
GEOLOGICAL BRANCH
ASSESSMENT REPORT
22,085
SCALE 1:1500
0 50 100 150
METRES
INT. KING JACK RESOURCES LTD.
CHAPLEAU CREEK PROPERTY
SLOCAN MINING DIVISION
NTS: 82F/11
FORSURE BRECCIA AREA
GEOLOGY MAP
TERRA NOVA EXPLORATION CONSULTANTS LTD.
BY: BRIAN V. HALL
DATE: OCTOBER 1991
FIGURE: 4.1

N
FORSURE
256057
KJ-3
256553
JACK CREEK
4000
3900
3800
3700
3500
3400
3300
3200
3100
3000
L12+00N
L11+50N
L11+00N
L10+50N
L10+00N
L9+50N
9N
8N
7N
6N
5N
7E
8E
9E
10E
LCP
BR-659
BR-663
BR-664
BR-662
BR-634
BR-635
BR-652
BR-646
BR-614
BR-615
BR-618
BS-620
BS-691
BR-609
BR-608
BR-604
BR-602
BS-601
FS-88-3
FS-89-1
FS-88-1
FS-88-2
CORE STORAGE
LEGEND:
ROCK SAMPLE (OUTCROP)
ROCK SAMPLE (FLOAT)
SILT SAMPLE
GEOLOGICAL BRANCH
ASSESSMENT REPORT
22,085
SCALE 1:1500
0 50 100 150
METRES
PROFESSIONAL
PROVINCE OF
B. V. HALL
BRITISH COLUMBIA
GEOSCIENTIST
INT. KING JACK RESOURCES LTD.
CHAPLEAU CREEK PROPERTY
SLOCAN MINING DIVISION
NTS: 82F/11
FORSURE BRECCIA AREA
SAMPLE LOCATION MAP
TERRA NOVA EXPLORATION CONSULTANTS LTD.
BY: BRIAN V. HALL
DATE: OCTOBER 1991
FIGURE: 4.2

N
FORSURE
256057
KJ-3
256553
L12+00N
L11+50N
L11+00N
L10+50N
L10+00N
L9+50N
7E
8E
9E
10E
9N
8N
7N
6N
5N
LCP
4000
3900
3800
3700
3500
3400
3300
3200
3100
3000
FS-88-3
FS-89-1
FS-88-1
FS-88-2
JACK CREEK
CORE STORAGE
LEGEND:
ROCK SAMPLE (OUTCROP)
ROCK SAMPLE (FLOAT)
SILT SAMPLE
GEOLOGICAL BRANCH
ASSESSMENT REPORT
22,085
SCALE 1:1500
0 50 100 150
METRES
PROFESSIONAL
PROVINCE OF
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INT. KING JACK RESOURCES LTD.
CHAPLEAU CREEK PROPERTY
SLOCAN MINING DIVISION
NTS: 82F/11
FORSURE BRECCIA AREA
Au RESULTS in ppb
TERRA NOVA EXPLORATION CONSULTANTS LTD.
BY: BRIAN V. HALL
DATE: OCTOBER 1991
FIGURE: 4.3

GEOLOGICAL BRANCH
ASSESSMENT REPORT
22,085
INT. KING JACK RESOURCES LTD.
CHAPLEAU CREEK PROPERTY
SLOCAN MINING DIVISION
NTS: 82 F/11
MORNING STAR GRID
NORTH HALF
GEOLOGY MAP
TERRA NOVA EXPLORATION CONSULTANTS LTD.
BY: BRIAN V. HALL
DATE: OCTOBER 1991
FIGURE: 5.1
LEGEND:
NELSON BATHOLITH
JURASSIC
Jdg DIORITE/ GNEISS
Jgp GRANITE (PORPHYRITIC) equivalent to MAIN PHASE
Jgc GRANITE (COARSE GRAINED) equivalent to ALPINE PHASE
Jpg PEGMATITE
qtz quartz
py pyrite
SCALE 1:1500
0
50
100
150
METRES
PROFESSIONAL
PROVINCE OF
B. V. HALL
BRITISH COLUMBIA
GEOSCIENTIST
L 6+00 W
L 5+00 W
TRAIL
4000
4500
5000
26N
25N
24N
12W
11W
10W
9W
8W
7W
6W
5W
4W
3W
2W
Jdg
Jgp
Jpg
Jgc
B700
B701
B702
B703
B704
B705
B706
B707
B708
B709
B710
B711
B712
B713
B714
B716
B717
B718
B719
B720
B721
B722
B723

L 6+00 W
L 5+00 W
4000
4500
5000
TRAIL
91BR-704
B704
B723
B705
B722
B721
B700
B720
B719
B718
B717
B706
B707
B708
B709
91BR-710
B710
B701
B711
B703
B712
91BR-714
B714
B702
B716
B713
26N
25N
24N
12W
11W
10W
9W
8W
7W
6W
5W
3W
2W
LEGEND:
ROCK SAMPLE (OUTCROP)
ROCK SAMPLE (FLOAT)
SCALE 1:1500
0
50
100
150
METRES
GEOLOGICAL BRANCH
ASSESSMENT REPORT
22,085
PROFESSIONAL
PROVINCE OF BRITISH COLUMBIA
B. V. HALL
GEOSCIENTIST
INT. KING JACK RESOURCES LTD.
CHAPLEAU CREEK PROPERTY
SLOCAN MINING DIVISION
NTS: 82 F/11
MORNING STAR GRID
NORTH HALF
SAMPLE LOCATION MAP
TERRA NOVA EXPLORATION CONSULTANTS LTD.
BY: BRIAN V. HALL
DATE: OCTOBER 1991
FIGURE: 5.2

INT. KING JACK RESOURCES LTD.

CHAPLEAU CREEK PROPERTY

SLOCAN MINING DIVISION NTS: 82 F/11

MORNING STAR GRID
NORTH HALF

Au RESULTS in ppb

TERRA NOVA EXPLORATION CONSULTANTS LTD.

BY: BRIAN V. HALL
DATE: OCTOBER 1991 FIGURE: 5.3