90064/506

	70001/500
	MINING INCENTIVES PROGRAM
Тикон	APPLICATION FORM
Economic Development:	0,119
Mines & Small Business Box 2703, Whitehorse, Yukon Y1A 2C6	
(403) 667-5466 Telex 036-8-260	
	REMBLAY
	ENSING, JOHN GARTNER
Contact Name LARRY TREM	······································
Operator Name	IBLAY
•	aines Junction
Province Yukon	Postal Code <u>YOB//O</u>
Telephone634_2357	FAX
Company Name None at pres	ent
	nla
Province	Postal Code
Telephone	FAX
Type of applicant (please cl	heck) :
Individ	ual
X Partner	ship
Company	or Corporation
Joint V	enture
Project Geologist/Engineer	None at present
Field Telephone # or Radio	Call Sign <u>summer rental</u> , <u>number</u> tehen
Advance Requested(available	for prospectors only) Yes/No
DECLARATION. I hereby appl	y to the Yukon Mining Incentives
	<u>CREEK PROJEC7</u> project, and
(projec declare the information sub	mitted to be true and accurate.
L T. M.	4 lima l
Name <u>A(. Approximation</u> Signa	ture DateDate
MIP90A:\MASTERS\YMIPAPPL.DO	C Page 1 of 2

915S

KELLIE PROPERTY Lat 61' 33'N, Long 139' 37'W Yukon quantz claim sheet 115-G-12 43 quantz claims <u>Ownens</u> Percentage of ownership

> Dannel Duensing Bunwash Landing Yukon 43% (claims negistered in his name) Lanny Tremblay Haines Junction Yukon 43% Main contact 634-2357 John Gantnen Lander Wyoming U.S.A. 14%

CONTENTS

History Kelli property Exploration Pre 1989 1989 geology (outdated) Photos Formations trenching nock samples Reports annayn Марл Location Claims air photo identification Application Tanget evaluation grant

			NO. OF		
	CLAIM	NAME	UNITS	CLAIM NUMBER	
	Kelli	1	1	YA93845	
·	Kelli	2	1	YA93846	
	Kelli	3	1	YA93847	
	Kelli	4	1	YA93848	
	Kelli	5	1	YA93849	
	Kelli		1	YA93850	
	Kelli	7	-1	YA93851	
	Kelli	8	1	YA93852	
	Kelli	9	1	YA95337	
		10	1	YA95338	
	Kelli		ī	YA95339	
		12	1	YA95340	
	Kelli		ī	YA95341	
		14	ĺ	YA95342	
		15		YA95343	
		16	1	YA95344	
		17	1	YA95345	
		18	1	YA95346	
		19	1	YA96352	
	Kelli		1	YA96353	
	Kelli	21	1	YA96354	
	Kelli	22	1	YA96355	
		23	1	YA96356	
	Kelli		1	YA96357	
	Kelli	25	1	YA96358	
	Kelli	26	1	YA96359	
	Josie	1	1		
				YA96350	
	Josie	2	1	YA96351	
	Grace	1	1	YA97463	
	Grace	2	1	YA97464	
	Grace	3	1	YA97465	
	Grace	4 5	1	YA97466	
	Grace			YA97467	
	Grace.		1	YA97468	· ·
	Grace	7	1	YA97469	
	Reno	1	1	YA97470	
	Reno	2 1	1	YA97471 YA95976	
	Rose Rose	2	1		
		3	1	YA95977 YA95978	
	Rose				
	Rose	4 5	1	YA95979	
	Rose Rose	5 6	1	YA95979	
	RUSE	U	Ŧ	YA95981	

kelli - REED CREEK PROJECT

The owners have 43 quartz claxims situated on a left bank tributary of Reed Creek, a tributary of the Donjek River.

While placen mining has been oun main objective, the nature of the placen gold indicated that the sounce was very close and in a number of areas as we progressed up creek. Active prospecting for the source basically did not begin with any planned effort untill late 1987. Since that date considerable cost has been expended to trace the source, good results were obtained in 1989 which provided us with the necessary clues to the possible model and the potential of a number of areas we had uncovered in past years.

The summer program will begin as eary in May 1990 as weather permits with the completion no later then August 1, 1990.

Most of the work will consist of drilling and blasting, Gat and hoe trenching, washing down canyon wall with pump and moniter, there will be some hand trenching.most of the sampling will be by a propler geologist, mapping and report prepared by same.

The maijn objective is to prepare the property to an extent whereby maxium benifit can be obtained for the work we have cannied out over the years and the value of the property.

Scheduling of each phase of the work as to begin and completion time is impossible at this time, ice and thawing conditions will dictate each phase, Priority will be given to the two proven aneas, Lower and Middle canyon, the diorite dikes can be worked early due to their location high on the canyon wall/.

Hopefully this property will be optioned/joint ventured no later then August 1 1990.

Assessment work has been negistered each year with the Whitehorse mine recorders office.

1990 Preposed work program required to further appraise the property in preperaTION to joint venture or opltion

Where as the 1989 season provided excellant results, we reconize the importance of expanding those results to enable a reasonable return on our investment and years of work, concentration will be on tangets known to have good potentigal. and will consits of: Lower canyon Kelli claim no 17

To daTE 92 feet of quantz canbonate graphite has been exposed, assays are good, considerable cleanup of thes exposure is required for good evaluation, there is also strong evidence that this shear system carries on for some distance beyond what has been exposed.

Further exposure will require;

- a) remopal of overbunder and old timers tailings by washing the canyon wall using a 6 in pump and 2 in moniter
- b) drilling and blasting of overburden and tailings
- c) removal of waste material by D8 cat and 1 yd. backhoe
- d) drill and blast face of bedrock to provide a clean face for veiwing and sampling

<u>Costs</u> based on frozen material requiring the process to be repeated a number of times

pump rental	\$ 70.00	hr	20 hrs				
dnill nental	55.00	day	5 days				
cat D8	125.00	hr	15 hrs				
hoe	100.00	hr	20 "				
Loaden (front end)	60.00	//	10 "				
Labour	10.00	:	90″				
Estimated cost of project							

\$7,050.00

Middle canyon Kelli # 2

Approx. 90 ft of quartz carbonate, slicified schist shear zone has been exposed. More work will be required then at Lower Canyon to provide a presentable exposure and evaluate the potential, placer results indicate that this area hags the best potential in the Lower valley. Work will be simular as Lower Canyon but will require considwerable more cat, hoe and loader work to dispose of waste from the canyon wall.

pump	70.00 hr	20 hrs	
dnill	55.00 day	10 days	
cat D8	125.00 hr	20 hrs	
hoe	100.00	25 ″)
Loaden	60.00 "	15	,
Labour	10.00 "	100	

Estimated cost of project

\$7,350.00

Upper valley Kelli # 3

Evidence of valley fracture/shear along right bank, surface stripping has been carried out over the past two years to facilitate thawing, extensive workings of old timers along this Inacture indicate excellent potential. a side cut over 200 ft long x 18 ft wide x 16 ft deep is required to expose the bedrock in this area. Extreme alteration, large limestone intrusion, phorphyry dikes silicified green schist

cat D8	125. hr	18 hrs	
hoe	100."	15 "	
Drill	55. day	2 days	
Estimated cost			\$ 4,055.00

Estimated cost

Upper valley Kelli # 4

Two trenches (cat) were dug here in 1987-88. to test placer values one exposed extensive sulfides, the other 110 ft above exposed a large area of gaantz canbonate graphite, while some assays were taken, samples were only taken from bedrock surface. Flooding in 1988 filled in these trenches. Present knowledge indicates excellant potential. Both trenches require reoplening, bedrock trenched for veiwing and sampling.

cat D8	125. hr	15 hrs
hoe	100. "	8 "

Estimated costs

Upper Forks Kelli # 8

Trenching by cat in this area 1986 for placer and handrock values reveiled estenaive quartz sulfide veining, sunface samples were acceptable, built only one of .6 oz ton were of good value. Flooding filled in the trench and no further exploration took place. There is also strong evidence through placer testing that this area supplies creek placer gold. A area of 200 ft long x 16 ft wide x 10 ft deep will be reoplere3d and extended if indications warrent.

cat D8	125. hr	14 hrs
hoe	100. "	10 "

Estimated cost

\$ 2,750.00

\$ 2,200.00

Intrusion Upper Valley Kelli # 9

There is adequate evidence that a large intrusion cross cuts the upper valley just above the upper forks, placer testing indicate fine to small course gold originates from this area, one soil 'sample of 3200 ppb appears to confirm this, A number of silicified schist outcropings occure along the right bank adjacient to the creek bed, hand trenching between these outcropings reveal what appears to be major quartz veining 🥧

Intrusion cont, d

with considerable sulfides, free fine gold can be panned from this area, late season investigation prevented adequate investigation. It appears that the width of this intrusion could exceed 400 feet across a major part of the valley. side cutting the bank across the strike would expose most if not all of the intrusion. approx 400 ft long x 15 ft wide x 15 ft high.

cat D8	125. hr.	30 hrs
hoe	100 hr.	10 hrs

Estimated cost

\$ 4,750.00

Dionite Dikes Kelli # 17

Three highly mineralized dikes have been identified as possibly diorite on the right bank canyon wall, surface sampling were not satisfactory, probly due to leaching. As the dikes are closly spaced there is a possibility this may be one dike 60 + feet wide. Hand trenching and drilling, blasting is required to uncover a large cross section to facilitate exploration and evaluation, poaaibly up to 80 ft mide x 6 ft deep. there is a strong possibility most of the material is quartz carbonate with extensive sulfides.

Hand trenching	10.00 hr	. 80 hrs
dnill	55. day	5 days
a 1		

Estimated cost

Misc. Expenses

Fuels, oils	5,000.00
blasting powden etc	1,000.00
Helicopter support	700.00

Estimated cost

\$ 6,700.00

\$ 1,075.00

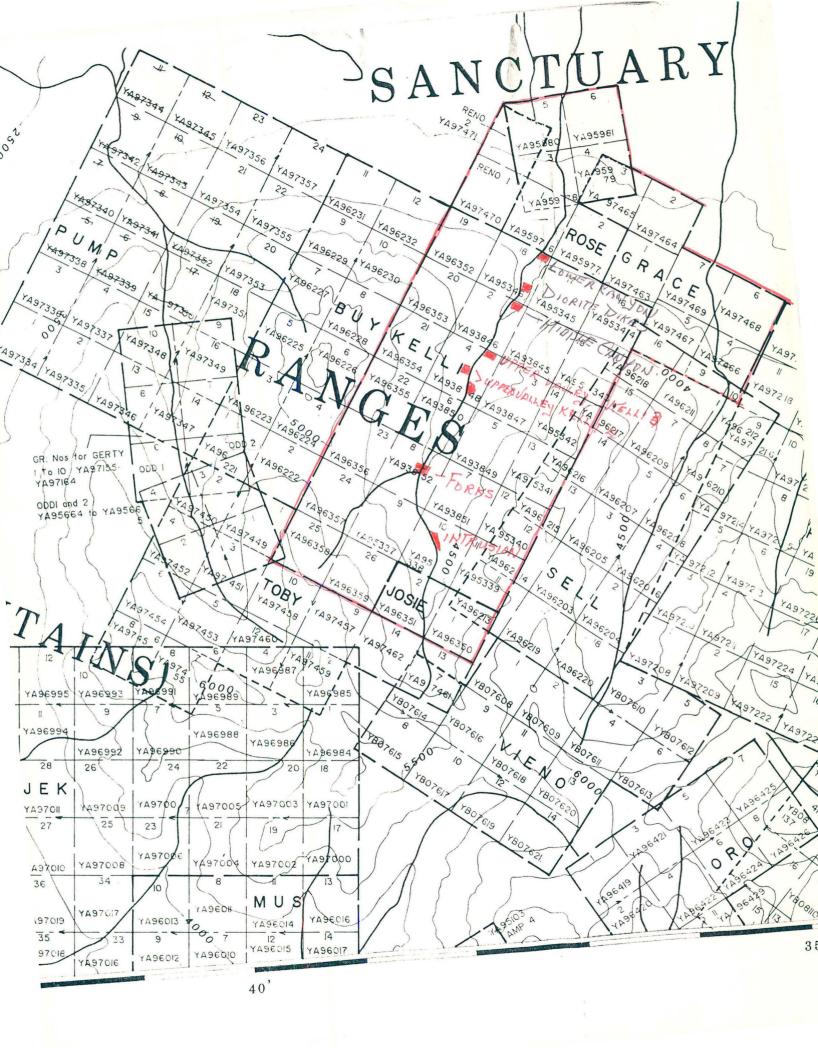
Geological consultant

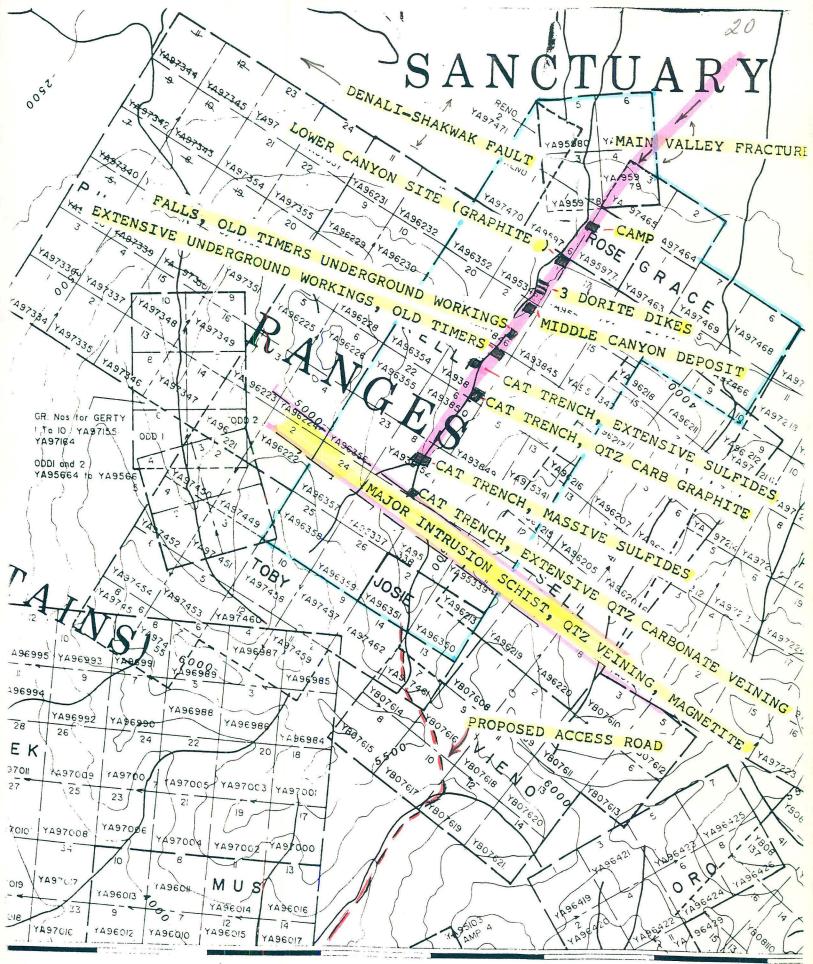
Evaluate, advise and prepare report, including transportation. maintenance, materials. \$ 7,000.00

Sampling assays (most will be metallic seive at \$ 27.00 per assay due to the freee gold) \$ 2,000.00

Total budget for 1990

\$ 44,920.00





40'

35'

HISTORY THE KELLI PROPERTY

Old workings and miners cabins date miners on the tributary of Reed Creek during the years of 1904 to 1915. Extensive old workings, cabins and communication with old timers date a number of miners here from about 1930 to 1941. Harry Frome who has lived in the Yukon since the early 30's mined in the Kluane area on Squaw, Sheep and Arch Creeks from 1934 to 1941. Remembers the activity on this (Kelli) Creek during that time. He states: Two Swedes were the major mine owners on this creek, they mined open placer during the summer months and mined underground in the Believe they came to the creek in 1929 or 30, left in winter. 1941 or early 42. They hired four to six men for the summer months, but mined alone during the winter. He states: They worked hard for their gold, but must have been doing well as they were one of the few miners in the District who could afford to hire help. Food and other supplies were high priced. Wagon and pack horse transportation from Whitehorse to the mine was very costly. Each man hired, cost the miner about \$4.00 wages and \$4 - 5.00 maintenance per day.

During the war and the following 30 years the property lay unstaked except for one year in 1954. Locals sniped for nuggets whenever they were in the area, especially after heavy rains when some heavy nuggets could be found in the canyon. After learning of this L. Tremblay staked a number of placer claims on the creek and mined below the canyon in 1982 - 83. Then by option Dublin Gulsh mining systematically, mined the creek gravels up stream from below the canyon to the first right limit put above the canyon between 1984 - 87.

The creek was successfully mined these four years using D8 - D9 bulldozers, 966 -988 front end loaders, steel sluce box, etc. Depth to bedrock averaged 8 feet. By far the best values were obtained in areas directly down creek from where the Old Timers

had gone underground. Indicating feeder veins in at least four areas, possibly six. There also was a distinct difference in the composition of the quartz that was associated with the gold in each location. Over 3000 oz. of gold was taken from this steep narrow canyon. About 97% was course, with nuggets 1 to 3 oz. very common. A large percentage of the gold is highly angular with a wiry texture 37 occurs as a foul partially wrapped around P30any iron quartz or quartz feldspar granules. One three and one quarter oz. nugget is concave with clay altered monzonite porphyry adhering to the inside. Platinum nuggets 1 to 4 grams and large native copper nuggets are common in the sluce box, along with unusually high concentrations of course magnetite and pyirhotite.

GEOLOGY

The claims are located on the north flank of a southeast-trending mountain range which forms the southwest margin of the Shakwak Trench, a major physiographic feature which extends across southeast Yukon into Alaska.

Elevations range from 900 m (3000 feet) along the northeast edge of the claim block to 1980 m (6500 feet) in the southwest part of the project area. Vegetation cover varies from dense black spruce and willow forest at lower elevations to grasses, moss and black birch scrub interspersed with lichen-covered scree slopes at higher levels. Permafrost is continuous and the annual active zone retreat is less than one metre in vegetated areas.

Areas between 1100 m (3500 feet) and 1925 m (6500 feet) elevations were lightly glaciated by the Nisling Ice-Sheet. Marginal channel deposits from this glaciation form intermittent terraces at the 1675 m (5500 feet) elevation along the southwest edge of the claims. Very little lodgement till was deposited by this glacial event and only minor erosion was apparently carried out as sulphide mineralization on the Wellgreen property at similar elevations is oxidized up to 20 m depth from surface.

The project area is transected by northeast-flowing creeks spaced at relatively regular intervals. These were occupied by minor cirque glaciers of the younger Ruby Range Glaciation and have near vertical headwalls, steep talus slopes on both flanks and variably thick deposits of till, morainal material and reworked glacial deposits on their floors.

Regional bedrock geology shown on Figures 3 and 4 is taken from GSC Open File 381. Stratigraphy is summarized on Table II. The northwest edge of the Reed Creek area is bounded by the Shakwak Fault, a major structure which forms the inboard edge of the

Wrangellia Terrane. All presently known nickel-copper-PGE mineralization in southwest Yukon and adjacent British Columbia and Alaska occurs within 10 km of the Shakwak Fault. The project area is underlain by a layered sequence of sedimentary and volcanic rocks which form the northwest limb of a broad syncline. This sequence is modified by northwest- and northeast-trending faults with uncertain displacement. The oldest rocks exposed belong to the Pennsylvanian and Permian Station Creek Formation and include thin-bedded argillite, chloritic phyllite, carbonaceous limestone and andesite to basalt flows (Unit Psv). These are conformably overlain by buff limestone (Unit Psc) and classic sedimentary rocks (Unit Psp) of the Lower Permian Hasen Creek Formation. All are unconformably overlain by amygdaloidal andesite and basalt flows of the Upper Triassic Nikolai Group (Unit utrnv).

The Quill Creek Ultramafic complex is a 20 km long layered maficultramafic sill that intrudes the upper part of the Station Creek Formation of the opposite southwest limb of the syncline. Nickel-copper-PGE mineralization the Wellgreen and adjacent properties is particularly associated with contact zones of the complex.

The Reed Creek area claims were staked to cover an aeromagnetic anomaly which coincides with the extrapolated stratigraphic position of the Quill Creek Ultramafic Complex. A high grade nickel-copper occurrence was discovered by a placer miner in 1986 and its location plots close to the stratigraphic position of the nearby ultramafic sill. Results of reconnaissance-scale prospecting and geological mapping demonstrate, however, that the aeromagnetic anomaly reflects distribution of metabasalts within the Station Creek Formation and not an unmapped ultramafic body. The high grade nickel-copper showing was relocated by prospectors in 1987 and it proved to be a large (1 by 2 m), well-rounded glacial float boulder of pyrrhotite-chalcopyrite mineralization

in a brecciated clinopyroxene-rich peridotite or wehrlite. A number of other specimens of glacially-derived ultramafic or gabbro float were also sampled from other drainages in the Reed Creek area.

Gold from the Reed Creek placer operation is unique for the district. Nuggets greater than one-half ounce are common and about 60 to 70% of the placer gold is angular or crystalline with P30 white quartz-calcite or quartz carbonate graphite vein material adhering. Quartz-calcite vein float containing coarse visible gold has been recovered from the creek gravels along the entire 3 km length of the placer workings. The float is generally angular and pieces range from fist-sized to about a metre across. Minor chalcopyrite, pyrite and arsenopyrite occur in narrow bands within the vein material but assays of sulphide-rich sections generally return values less that 0.2 oz/ton gold.

Despite a concerted effort during 1987 by the owners of the quartz and placer claims covering the drainage, no bedrock source was located for the gold-bearing float. Geochemical sampling has been carried out an apparently returns discontinuous moderate-strength anomalies (60 to 350 ppb Au in soils) along the lower valley slopes $b_{Z}^{e_{1}}$ these do not appear to continue up the valley walls. Source of the mineralized float in the creek gravels in from veins which parallel the creek in the valley bottom. A sulphide-rich quartz-carbonate vein occurs along the edge of a felsic dyke intruding metabasalts near the upper limit of placer workings, of this material for gold are encouraging .

EXPLORATION PRE 1989

The owners recognized that due to the nature of the gold found in the placer, the source would have to be near. It was also evident that there was more than one source along the mile of creek gravels that was placered. As the placer operation moved up creek the gold would become more angular, larger nuggets, a larger percentage of gangue adhering to the gold and the values would increase. At certain points values would drop off and as we moved on the same condition would apply for the next section. Thus we now know of at least four distinct potential source areas and the real possibility of five. Placer testing has proven there are more above where the placer operation ended.

Due to lack of sound geological knowledge combined with a successful placer operation, a planned exploration was not initiated until 1986⁷ and then only on a very limited basis. Where as we had some option offers during past years we were not in favour of any agreement that would interfere with placer operation.

Recognizing that a in depth exploration could develop at a later date. A strip of bed rock was left exposed in the creek bottom as the placer operation moved up creek, all tailings were stacked along the north wall of the canyon, leaving a strip of bed rock ten to twenty feet wide exposed for about 1 1/2 miles up creek.

1986-87 considerable trenching was carried out in the upper valley to check placer values and for potential hard rock gold. Numerous rock samples were taken and some creditable returns were obtained, six ranged from .1 to .6, most were from .002 to .09 (all oz/t) many of the best were from quartz veining in chlorite schist. No doubt the lack of knowledge of where and how to sample dictated some of the returns, we had found the leaders but failed to follow up. Three cat trenches in the upper valley are

of special interest, two revealed extensive sulfides, the other of large area of quartz carbonate graphite very similar to the $\rho 22$ exposure in the lower canyon. Other trenches revealed big quartz veins in excess of six feet wide, one a large calsite vein cutting through limestone. All revealed evidence of medium to extensive alteration.

The summer of 1987 rough float gold was discovered in eluvium in three areas along the east wall of the canyon. A monitor was used to wash overburden and expose bedrock. Overburden averaged four feet covered by a thick layer of moss and alder, an area of perma frost. Limited exposure in the two areas revealed a large clay like alteration paralling the creek.

R. Rogers, Chief Geologist, Noranda prospected the area in 1982-83. Recommended we stake when Noranda did not. Of considerable interest to him was the moderate to high soil samples and especially a large intrusion cross cutting the upper valley averaging over four hundred feet wide as indicated on the mag. Limited hand trenching carried out in 1980 indicate that part of this intrusion is massive quartz carbonate veining and silicified quartz schist. Surface assays: Schist .02 - .07, Qtz: .009 -.05, chunks of magnetite float up to ten lbs. are found direct down creek and on the lower portion of this intrusion.

Soil and silt samples have also been taken by: Hudsons Bay, Chief Geologist, G. Bidwell. All North The property owners

Most samples ranged from 30 to 400 ppb. Four others 1210, 1460, 2680, 2300.

1988 OPTION

In 1988 the property was optioned to a group from the Vancouver area. A geologist and one technician spent a month on the property mapping, prospecting, sampling, etc. Problems within their organization developed early in the summer and they failed to meet even the basic requirements of the option.

While the owners paid most of the bills for this failure, we never received any of the information that was gathered, plus we lost all the information we had gathered previous to the option. No information was ever returned. Sob stories galare to

As per the agreement a number of trenches were reopened in the upper valley to allow sampling, results unknown.

Late in the fall after we become aware that the option had failed, we were able to open up a small exposure of the quartz carbonate graphite in the lower canyon, two grab samples over six feet assayed 5.257 and 7.421 oz/t. P29

The creek had always produced a large amount of pyrite (sulfides) one sample washed and screened to plus 40 mesh was sent for assay, result 99.235 oz/t.

1989 EXPLORATION

The plan was to spend about equal time on the placer operation and the hard rock exploration, utilizing the same equipment and manpower.

Exploration would be concentrated on the canyon wall to follow up on findings of 1988. The major objective was to identify the type and potential of the deposit.

Due to abnormal icing conditions, equipment could not be utilized in the canyon until the second week of July. Had we chosen to do so, blasting of the ice would have advanced access by a month.

Using a one and one half inch monitor powered by a six inch pump, large sections of the wall was washed in two areas, the lower and middle canyon where there was extensive workings by the Old $\rho 20$ Timers. Washing was carried out as time allowed and natural thawing of the perma-frost.

By the end of August an area of approx. 100 feet wide X 70 feet high had been cleaned to bed rock in the middle canyon. This 2^3 exposed a large highly altered zone of clays, breccia, quartz 2^5 stockworks, etc. Paralleling the creek approximately seventy verticle feet above the creek on the canyon wall. Two verticle similar alteration zones began at the horizontal zone and continues some distance up the canyon wall, whereas the horizontal zone is from two to six feet wide, the verticle zones appear to exceed twelve feet in width and one could be much larger.

This is an area of greenstone and green chlorite schist, numerous porphyry dikes and some andesite dikes. The alteration is a later stage as all dikes have been altered within the contact zone. There is extensive quartz carbonate veining, minor graphite. Numerous sulfide lens and small veins, some copper, clay zones, one three foot wide vein of quartz schist assayed .546 au, 6.39 ag oz/t. Free gold was washed by panning from some of the clays and highly alternated breccia/schist zones, one $\frac{23}{24}$ nugget over five grams. Two hydro-thermal flues have been identified. By far the richest placer ground was below and shortly down creek from this zone, most $\frac{1}{2}$ of the gold was highly angular, the gangue adhering to the nuggets is similar to the alteration zone, seventy five percent of the gold averaged over one half oz., the largest three and one half.

LOWER CANYON (GRAPHITE HILL) PAGES 26-31

Work progressed slowly in this area as approx. 20 feet of the Old Timers tailing had to be removed to expose the bed rock, all frozen ground, this required the use of a D8 cat, large hoe. Monitoring and drilling and blasting.

A very complex zone was uncovered, generally recognized as mostly quartz carbonate with extensive graphite, large areas of hydrothermal brecciation, clays.

Paralleling the creek is a ninety two foot long alteration zone (drawing att.) consisting of a clay type alteration, bleached white in some area, others black or white/black banded. Three vents are spaced along this alteration, one on each end and the other near centre. The alteration averages about three feet wide, the vents to eight feet. Numerous veins of breccia appears to originate from these vents, narrow where they curl out from the vent and becoming much wider immediately after leaving the vent.

Considerable alteration is evident on the west side of the zone, but generally the veining structure is fairly consistent, quartz carbonate veining, schists, banded graphite, altered phorpyry dikes.

Extreme alteration has taken place on the east side of the zone, this extends the full length of the altered zone and three is evidence it continues up creek where it has not been exposed yet. General classification for the total area is quartz carbonate graphite veining. Possibly thirty percent is brecciated, ranging from a dense metrix to a non-metrix breccia. At the present time it is difficult to identify individual breccia veins, but in places they appear to be in excess of eight feet. There is many area of graphite layering, numerous evidence of shearing. Α number of the breccia has been altered and realtered a number of Number of clay zones. Stock work veining throughout. times. The northern portion of this system trends eastward under a massive porphyry dike, to date it appears that the base of this dike has been completely altered consistent with the southern portion.

At the southern most section of this zone a massive verticle clay alteration zone approx. twenty feet wide extends up the canyon 26wall, appearing to originate approx. 30 verticle feet above the canyon floor where the vent is. It is also at this point above the valley floor that gold values become almost non existent, from this point down to the floor free gold to three grams has been panned from the extremely altered breccia clay veins. Assay results from above are poor, but some excellent results have been obtained from below this point, i.e. grab samples of 5.257 and 7.421 oz/t gold. Three course chip type samples resulted in: two feet - .002, two and one half feet section - 5.078, four foot 27vein - 13.148. Frozen material was a problem when investigating this vein system as it was late in the fall and little or no thawing took place during the day.

While the 1989 season exploration program was limited due to the placer operation, late spring and the lack of sound geological

knowledge, we view it as a very successful season. It provided us with the necessary key factors, combined with past exploration strongly supports the following:

Identified as mesozoic/hydro thermal.

A major fracture system closely follows the valley floor for at least two miles, associated with this fracture are:

- A number of fairly massive quartz veins and at least one big classite vein, numerous areas of stockwork quartz veining.
- Two known and a probable third area of massive quartz carbonate graphite veining.
- Number of large dorite dikes, andesite dikes.
- Large areas of extensive alteration, solid evidence that this pattern of alteration is continuous most of the two miles.
- At least two areas of large sulfide beds, leaching indicate fairly extensive and possibly more than two.
- Silicified schist (QTZ) with acceptable values.
- Bonanza type free gold in two areas, strong evidence of at least three more areas, indicators point to more.
- Copper, silver, mercury, arsenic, zinc, cobalt, nickel, iron.

Placer recovery identifies a number of areas that possibly supplied gold to the creek.

Geology is favourable, volcanics with lime stone intrusions, situated in the greestone belt, andesite and phorphyry dikes.

Large intrusion at head of valley is a very favourable factor, most thermal systems appear to be associated with a major mineralized intrusion.

The Shakwak Fault now appears to be far larger and dominate then suspected, placer operating below the canyon show major alteration geologists credit to the Shakwak, this is two miles from what $\frac{1}{2}$ considered the centre. This area of the fault has been subjected to intense heat, almost no solid rock remains.

The owners have invested about \$300,000 in this hardrock show. As of this date we do not wish to continue investing our placer profits to further exploration. Big mining concers are interested, <u>but</u> as we wish to remain involved for at least one more year, outside investment is required.

The identification of the model, type of deposit and the associated factors have provided us with a good understanding of what we have overlooked in past exploration. We now know that we can quickly expand the present discoveries with a minimum of manpower and dollars compared to other ventures of this nature. Not only will we increase the value of the property, there is a strong drive personally to carry the program on to a higher degree.



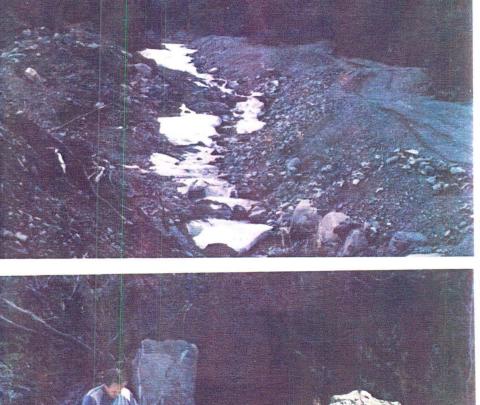
Placer tailings and camp below canyon

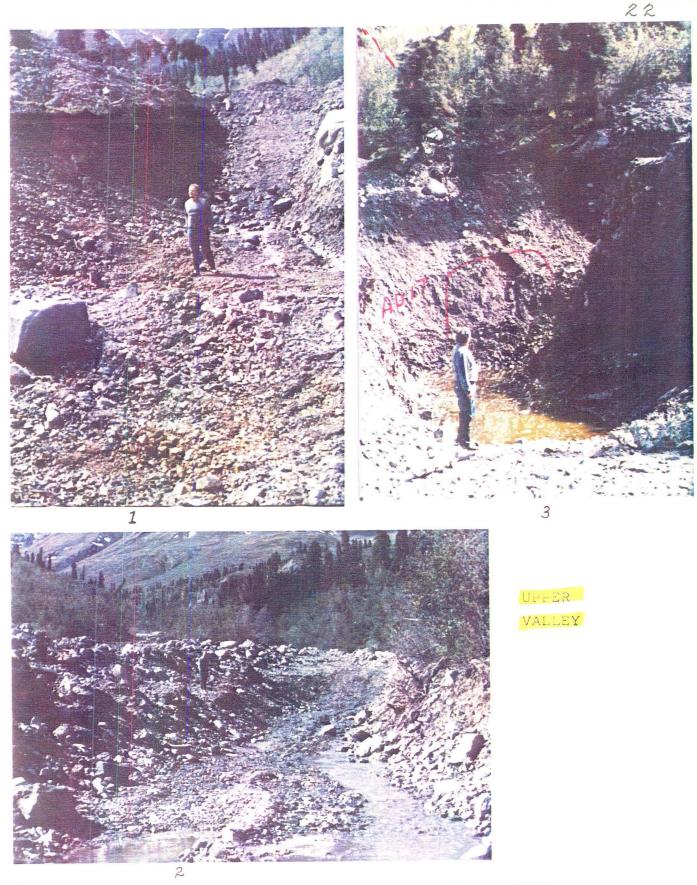
21

Alaska highway located at white buildings in far background

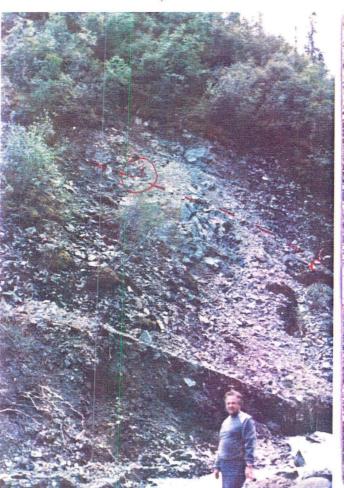
Over one mile of exposed bedrock and access road up canyon and upper valley

> Qtz carbonate block from major qtz vein that appears to be the main component of the main valley fracture in this section





- 1. Nassive sulfides, intense alteration, 100'L X 20'W.
- # 2. Qtz. carbonate graphite veining, 80'L X 18'W. extensive brecciation, qtz. stockwork veining, sulfides.
- # 3. Extensive Old Timers workings, valley fracture below water in foreground, Over 100 ft of slumping identifies underground tunnling along vein system





2

23

MIDDLE CANYON

East wall of canyon, 90 ft exposure of thermal fracture/ shear system

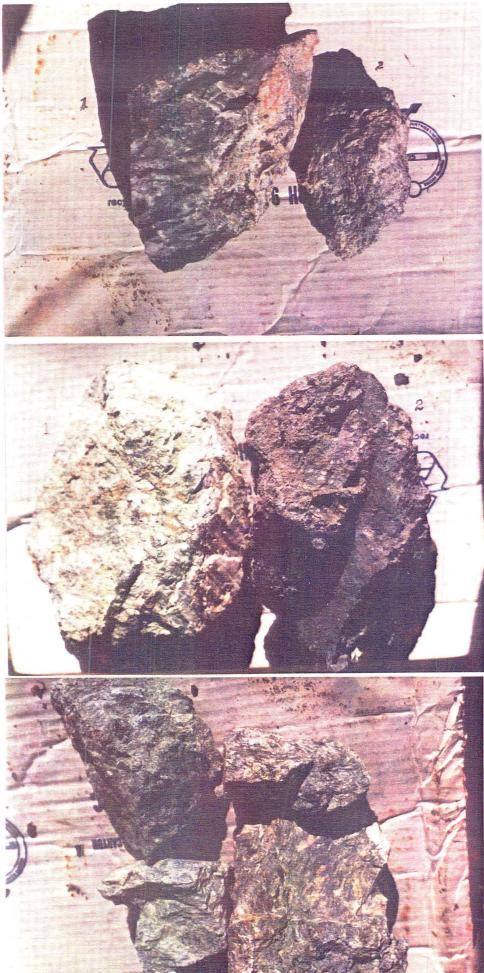
#2

1

Thermal vents #s 1 -2, 70 ft fracture line between to 4 ft wide, extensive brecciation, clay alteration, qtz veining, 3 indicates qtz schist 3 ft w vein assay .546 au - 6.39 ag oz/t. alteration color ranges from white to green,

#3

Large area directly below #2 vent, shearing , folding, qtz veining, discoloration,



MIDDLE CANYON

14 extremly hard metri qtz carbonate breccia veins to 3 ft wide

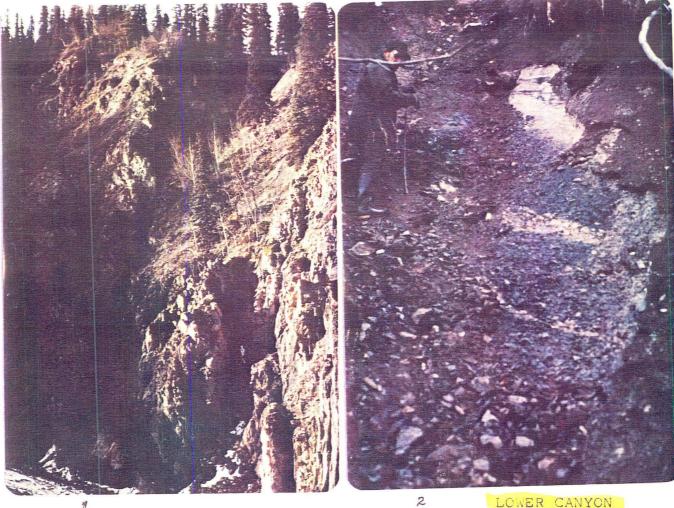
2- fine grained brecci cemented with a clay like material (clay altered monzonite) identified as quartz carbonate weathers qickly, produces free gold to nugget size

1- breccia veining altered a number of times, vein widths to 3 ft.

2- extremly altered graphite/quartz breccia from <u>lower</u> <u>canyon</u>

altered silicified qtz green schist with beecciation near flue. assays .546 au - 6.39 ag oz/t over 3 ft.W.

BULL QTZ VEIN. DIPPING APPROX 70° (804'-WIDE. 4-8' THICK. Ħ ANDRSITE VERT HIDDLE (BIG VENT JERT JENT 60' VER DIPS APPROX 70° W Dire QAUYON QTZ) OTZ SHIST VISIDLE VISI BAE 546 su. 6.39 A 4. GOLD CLAY - Bouge ALTERATION 220 05 -> VENT. QTZ CARBONATE VEINING. GREEN STONE. Sense JULFIDE VEINING - LENS. Storty & Port and a series of the serie · 3 BRECCIATION Property 6 2 H d ChAYS. CREEK BOTTOM λì. S.





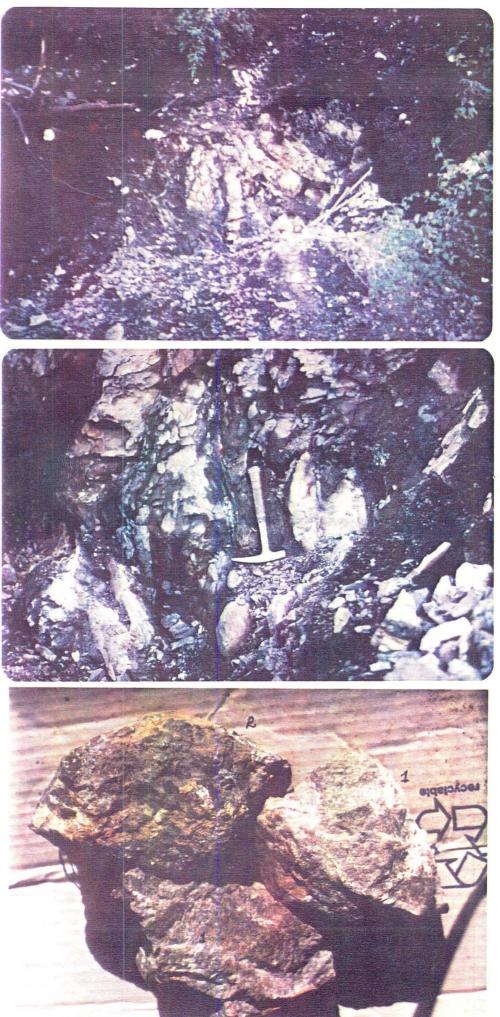


1- Phorphyry dikes directly across from large qtz carbonate thermal system, (next photos)

26

2 - 3 bydrothermal flue rising near verticle on canyon wall above zone of qtz carbonate vein system approx. 20 ft wide exposed over 60 ft high





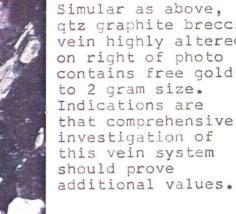
LOWER CANYON (graphite hill)

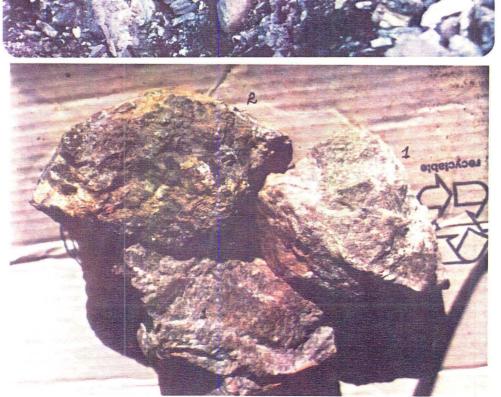
20'WX10'H exposure of hydrothermal qtz carbonate graphite vein system, shearing folding adjacient to large verticle thermal flue

Simular as above, qtz graphite breccia vein highly altered on right of photo contains free gold to 2 gram size. Indications are that comprehensive investigation of this vein system should prove

1- phorphyry altered to qtz carbonate, indications are that most porphyry dikes in the valley has undergone such alteration when contacting the valley fracture, also this alteration continues considerable distanc from the contact.

2- breccia from the qtz carbonate zone, graphite, minor copper,



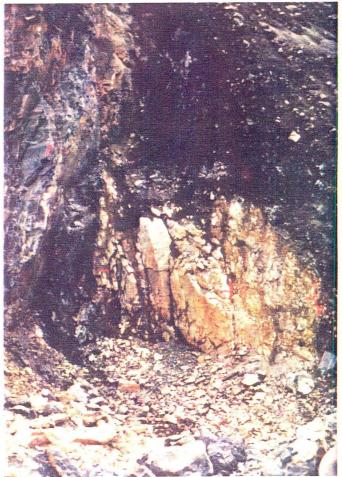


LOWER CANYON

Altered base of large phorphyry dike. note veining continues under the dike. thermal flue centered just beyond lower left corner of photo (#1 flue) extensive brecciation, graphite, qtz stockwork veining, clays



Thermal altered zone paralleling base of canyon wall, photo covers approx 60 ft. #2 flue lower right hand corner, #3 far end of alteration

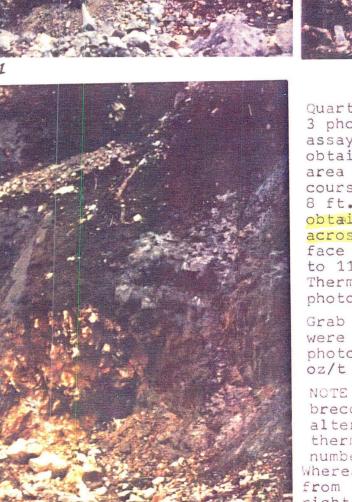


Veining continues under porphyry dike which completly alters the porphyry, #2 flue directly right of lower right corner. free gold panned from both graphite breccia veins seperated by a narrow band of schist like material



2





LOWER CANYON

Quartz carbonate graphite veining 3 photos cover approx, 30 ft. assays of 5.078 and 13.148 were obtained from extremly brecciated area (lower left) in photo #1. course chip samples over about 8 ft. Course free gold was obtained from a number of areas across the face. squared off face measures 6 ft high in #1 to 11 ft at right in #3 Thermal flue located bottom of photo #3 (#3 flue)

Grab samples collected late 1988 were obtained from area top of photo #2, assayed 5.257 - 7.421oz/t

NOTE a large percentage of the breccia veins are extremly altered indidating that the thermal action was active a number of times. Whereas free gold was obtained from the breccia zones on the right of the face, proper assaying was not carried out as on the left.



LOWER CANYON

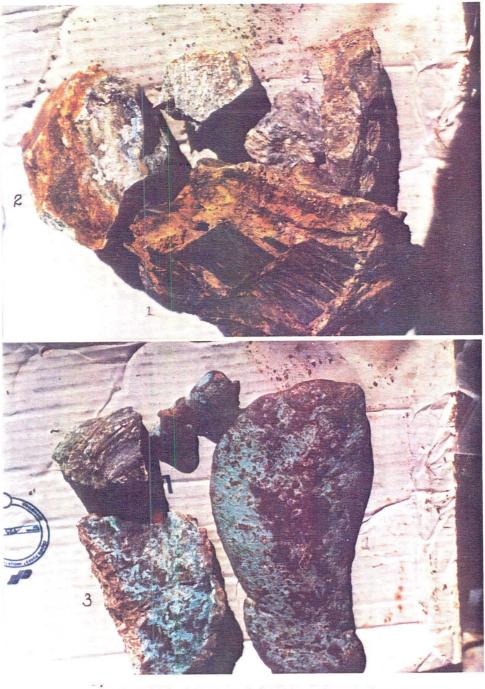
qtz carbonate graphit
veining, radical
flow pattern created
by hydrothermal
action



black/grey quartz carbonate banding, extreme folding of the banded rock and what appears to be altered porphyry

breccia from various veins across the exposed face, a large percentage of the breccia veins are highly altered, in many areas almost clay like. veins of graphite exceeding 4 ins. are not uncommon.

VERTICHE VENT. ALTERNITION DIPS APPROX 70°W. 22005 GRAB SAMPLES 206 PORPHYRY. X X 5.257 7.421 DWER 2/2 0 VERT VERTICLE FT 9 GRAFFITE CANY ON VENT. 20'WX 60'H QTZ. CARBONATE GRAPHITE. 220' 5 -EXTENSIVE ARECCIATION Arit PEPOSIT 5.078 13.14 3/2 0 L 2/2 IL wi VENTS ANTERATION ZONE 22005-VEINING 1-+46' -46'+ Ň 200 CREEK CREE-780 S



1- Float material
welded togeathes by
zinc, collected in
old timers workings
above canyon
2- copper stained
sample collected from
d'orite dike in canyon

3- qtz veining, 60% sulfidesm mostly pyrite, collected from veins to 3 ft wide in upper valley.

1- Native copper nugget 41bs, small one came from graphite breccia in lower canyon

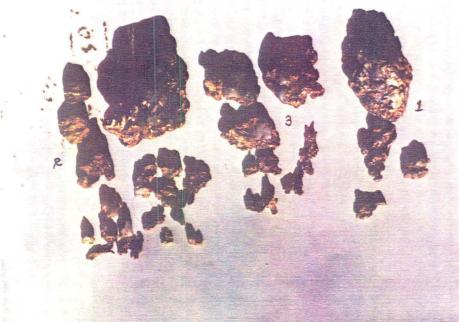
2- shearing, qtz carb sulfide vein in middle canyon

3- Copper from vein/ sill in upper valley

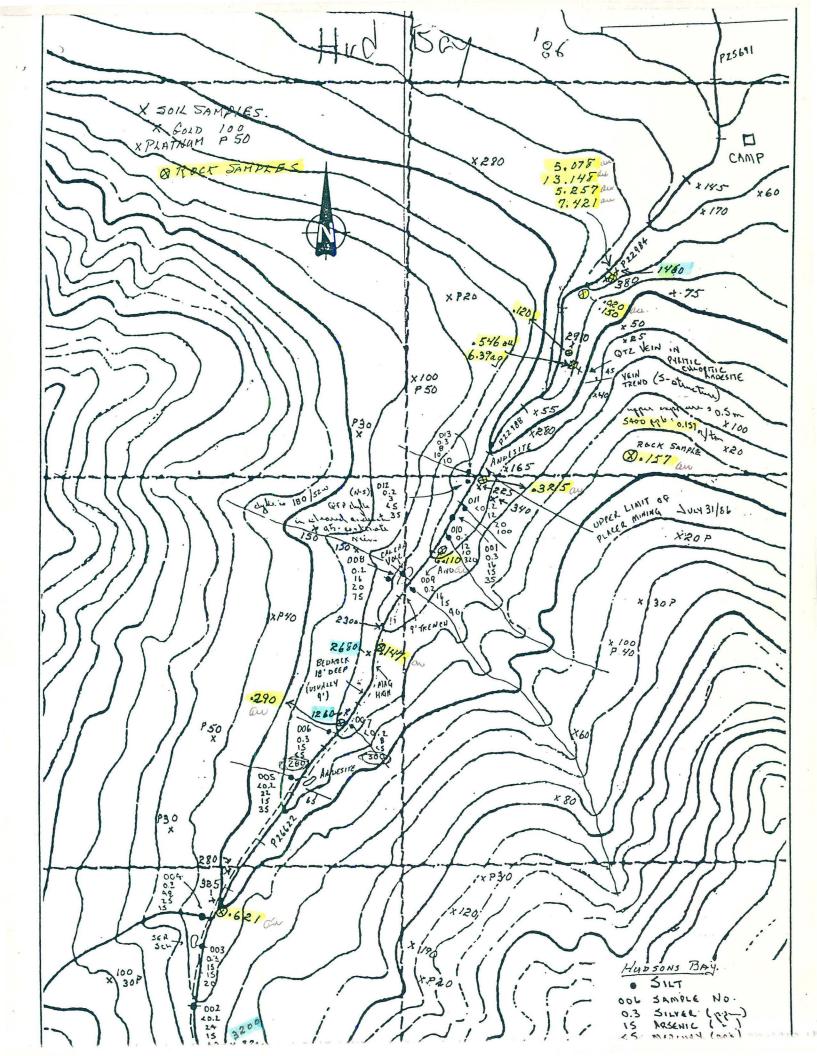
1- From placer above canyon, calcite, qtz carbonate.

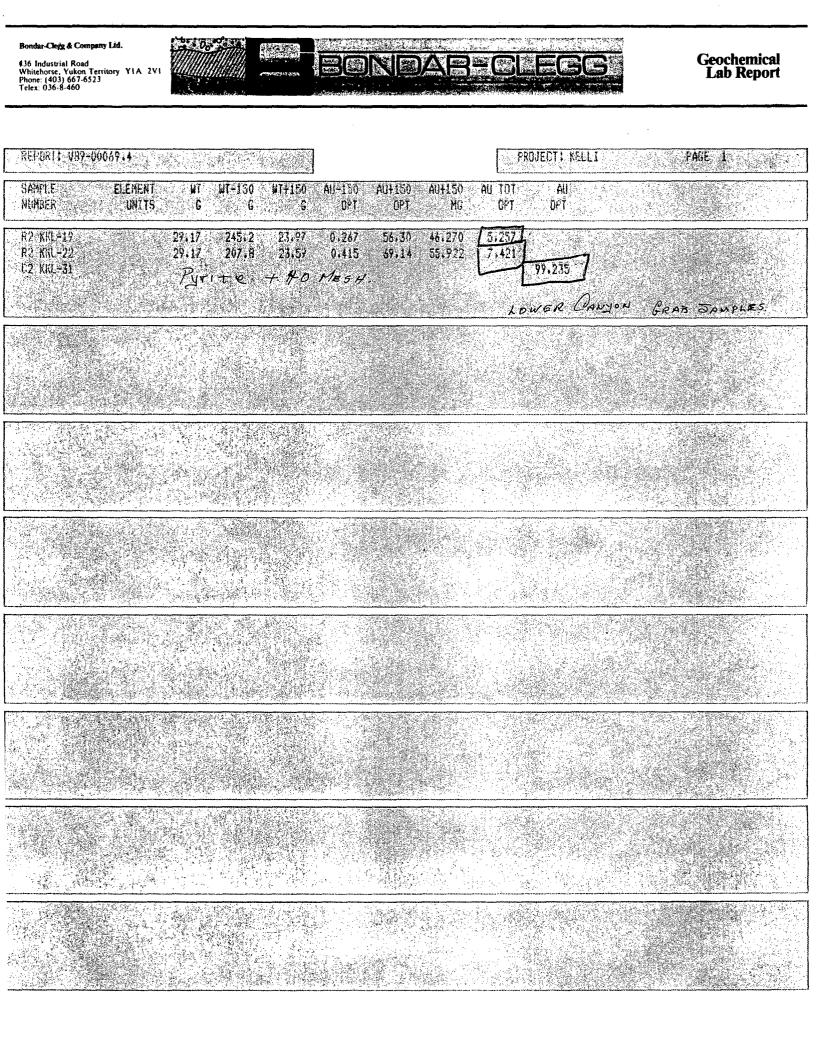
2- Nuggets from lower canyon deposit, largest 2½ oz. gangue is qtz carb. graphite, most small pieces came from extremly altered breccia.

3. From deposit in middle canyon. gangue clay altered monzonite qtz carbonite, and qtz feldspar granules largest 2 oz. note calcite crystals adhearing to nugget obtained from alteratio area, small nuggets obtained from altered clay breccia









Bondar-Clegg & Company Ltd. 130 Pemberton Ave. North Vancouver, B.C. V7P 2R5 (604) 985-0681 Telex 04-352667



Certificate of Analysis

REPORT: V89-079	946.4							ATE PRIN ROJECT: N		₩¥÷07	PAGE 1	
SAMPLE Number	ELEMENT UNITS	Au Opt	Ag Opt	WT G	WT-150 G	WT+150 G	Au-150 Opt	Au+150 Opt	Au+150 MG	AU TOT OPT		<u>.</u>
R2 KKL-BQ-32 R2 KKL-GH-51 R2 KKL-GH-52 R2 KKL-GH-53		0.006	<0.02	29.17 29.17 29.17	322.1 290.3 308.4	6.63 8.26 7.39		<0.01 154.01 351.90	0.002 43.617 89.164	0.002 5.078 13.148	F,	
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August 31, 1989

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Larry Tremblay Reed Creek Placers Haines Jct., Yukon

ASSAY CERTIFICATE FOR SAMPLES PROVIDED

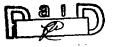
WORK ORDER # 29155

Sample	oz/t Au	oz/t Ag		6992 C
KKL-BQ-22 KKL-BQ-23 KKL-BQ-24 KKL-BQ-25 KKL-BQ-26	<0.546 <0.002 0.006 0.012 <0.002		MIDDLE CANYON. QTZ JCHIST	S MALD F. HAYES S A.Sc.T. 904700 USINB

INVOICE FOR ANALYTICAL SERVICES

Sample Preparation	5 x \$ 3.75	=	\$ 18.75
Au 1AT Fire Assay/Grav	5 x \$ 9.75	=	\$ 48.75
Total due on receipt of inv	Dice		\$ 67.50

Thank you for using Northern Analytical Laboratories Ltd.



105 Copper Road, Whitehorse, TY, Y1A 2Z7 Ph: (403) 668-4968 Fax: (403) 668-4890



SPECIALISTS IN MINERAL ENVIRONMENTS CHEMISTS • ASSAYERS • ANALYSTS • GEOCHEMISTS

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TIMMINS OFFICE: 33 EAST IROQUOIS ROAD P.O. BOX 867 TIMMINS, ONTARIO CANADA P4N 7G7 TELEPHONE: (705) 264-9996

<u>Certificate of GEOCHEM</u>

Company:VANGUARD CONSULTANTS Project:KELLY Attention:D.COFFIN File:8-1122/P1 Date:AUG 19788 Type:ROCK GEOCHEM

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o

He hereby certify the following results for samples submitted.

| 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1 |             |                                             |   |
|------------------------------------------|-------------|---------------------------------------------|---|
| Sample                                   | AU-WET      | HG                                          |   |
| Number                                   | PPB         | PPB                                         |   |
| 27/07#2                                  | 112007      | MIDDLE CANYON.<br>Que CARIS SUNFIDE VEINING |   |
| 27/07#3                                  |             | MIDDLE CANJON.                              |   |
| 27/07#4                                  | . 60        | ADA SUNFIDE VEINING                         |   |
| 28/07#1                                  | 4000        | Que LANIS                                   |   |
| 28/07#5                                  | 20          |                                             |   |
|                                          | ,           |                                             | - |
| 29/07#1                                  | 1 O         | 35                                          |   |
| 29/07#2                                  | 10          | 45                                          |   |
| 29/07#3                                  | 10          | 10                                          |   |
| 29/07#4                                  | 20          |                                             |   |
| 29/07#5                                  | 50          |                                             |   |
| 29/07#6                                  | * **        |                                             | • |
|                                          | 10          |                                             |   |
| 30/07#1                                  | 5           |                                             |   |
| 30/07#2                                  | 5           |                                             |   |
| 30/07#3                                  | ZINC. TILOO |                                             |   |
| VIENO ZN                                 | 2/NC. 1100  | 2.631 % Zh )                                |   |
|                                          |             |                                             |   |

Certified by

MIN-EL LABORATORIES LTD.



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2.1.2 BROOKSBANK AVE .. NORTH VANCOUVER . BRITISH COLUMBIA, CANADA V7J-2C1

PHONE (604) 984-0221

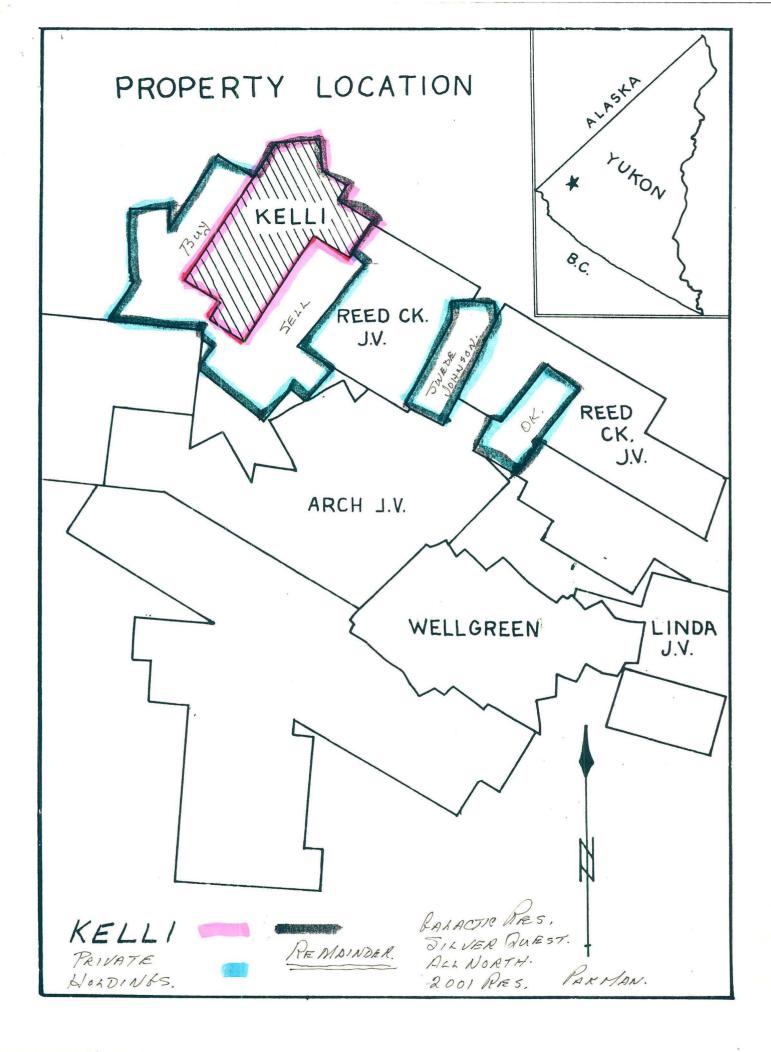
To : REED CREEK PLACERS

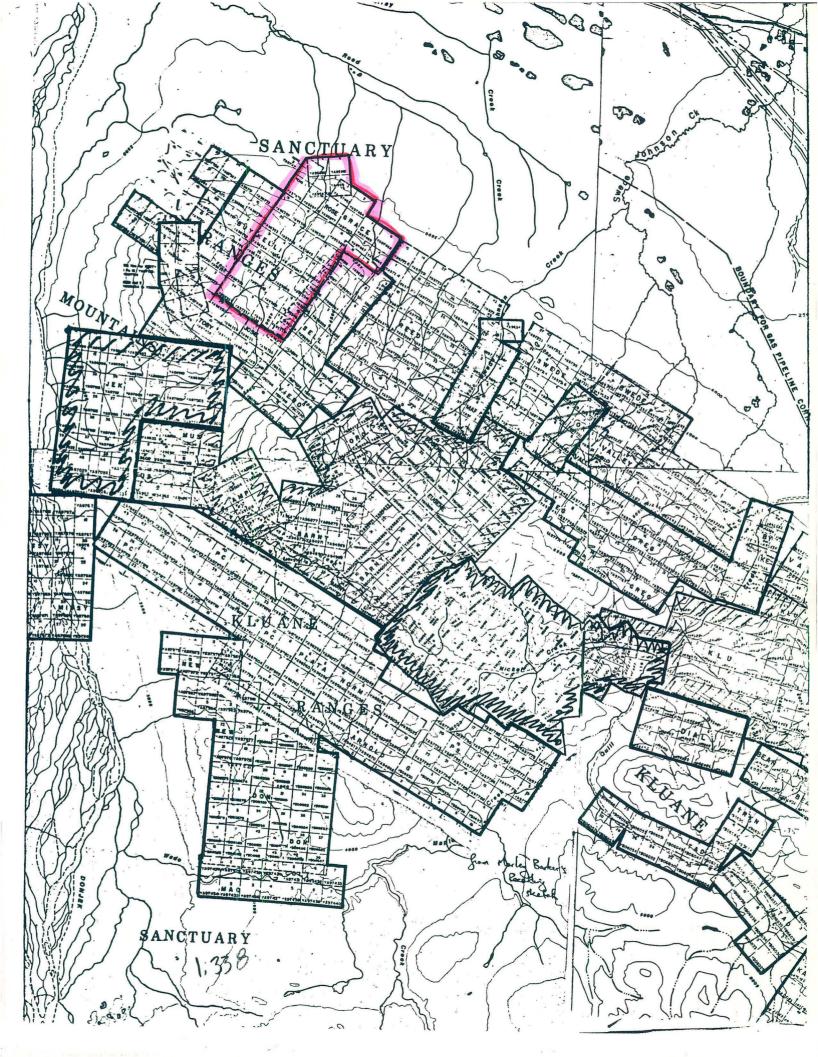
BOX 5389 HAINES JUNCTION, YUKON YOB ILO Project : KELLI CREEK Comments: CC: LARRY TREMBLAY

٠ Page No. :1 Tot. Pages: 1 Date : 2-NOV-88 Invoice # : I-8826411# P.O. # :NONE

#### CERTIFICATE OF ANALYSIS A8826411

| SAMPLE<br>DESCRIPTION                          | PREP<br>CODE                                                                   | Au FA<br>oz/T                                          |     |        |         |         |                 |       |       |
|------------------------------------------------|--------------------------------------------------------------------------------|--------------------------------------------------------|-----|--------|---------|---------|-----------------|-------|-------|
| KKL-01<br>KKL-10<br>KKL-11<br>KKL-12<br>KKL-13 | 207            207            207            207            207            207 | < 0.002<br>0.020<br>0.150<br>< 0.002<br>0.002<br>0.002 | Low | R PANY | ION OTA | CARB- A | JERED BRORPHYRY | D11×5 |       |
| KKL-14<br>KKL-15<br>KKL-17                     | 207<br>207<br>207                                                              | < 0.002<br>< 0.002<br>< 0.002                          |     |        |         |         |                 |       |       |
|                                                |                                                                                |                                                        |     |        |         |         |                 |       |       |
|                                                |                                                                                |                                                        |     |        |         |         |                 |       |       |
|                                                |                                                                                |                                                        |     | ÷      |         |         |                 |       |       |
| -                                              | N.,                                                                            |                                                        |     |        |         |         |                 | Bli   | retes |







MAJESTY THE QUEEN IN RIGHT OF CANADA, DEPARTMENT OF ENERGY, MINES AND RESOURCES



#4

# Northwest Prospector

Corp explored oundary faults Skukum mine al mapping, ics. Four new alization were e Watusi vein, in 200 m long red with values 9.7 ppm silver rillholes tested iously known ins.

e Mt Skukum al Consultants ierty for Northe adjoining otal Energold uartz-sulphide es are localizwest-trending n 1989 includ-; on both proid mapping of ton property. )n vein in the gold and 59.4 0.48 m and a

l reported the sting on the vein at their Macauley Creek property. Chip samples taken across the 1.8 m vein at four places averaged 3120.2 g/t silver and 6.0 g/t gold. Preliminary flotation tests gave recoveries of 95% of the silver and 90% of the gold from a lead-zinc concentrate.

On the south flank of Pugh Peak, Graham Davidson discovered several epithermal arsenopyrite-fluorite-quartz veins up to 2 m wide associated with a small rhyolite stock.

Following an extensive geochemical sampling program, United Keno Hill Mines Ltd drilled two large anomalies on the Joe Petty property on Montana Mountain, where gold and silver occur in a brecciated quartz vein cutting bleached and altered volcanic rocks. Narrow bands containing 25 to 30 per cent tetrahedrite were encountered near the vein margin. Drilling was abandoned when a violent windstorm demolished the camp.

Northeast of Whitehorse, geological mapping was carried out on Larry Carlyle's Mt. Byng property, where gold and copper occur in brecciated quartz-carbonate veins associated with wide rhyolite dykes and small stocks cutting older intermediate to mafic intrusive and volcanic rocks. Grab samples of the vein material have returned values as high as 68.6 g/t gold.

Near Squanga Lake south of

Off Road Buggy Drill Mineral Sampling to 800 ft Easily Transportable Angle Drilling in Three Directions Sullair 600 cfm @ 350 psi Compressor

ULATION DRILL

**Enviromentally Sensitive** 

Whitehorse, **Dunvegan Explorations Ltd** explored the Tog property, where visible gold occurs with graphite, galena, sphalerite and chalcopyrite in a 1.2 - 3.7 m wide grey quartz-sulphide vein along the faulted contact between ultramafic and metavolcanic rocks of the Cache Creek Group. Visible gold occurs sporadically over a 9.1-m strike length, adjacent to shears bounding the quartz vein. The shears are believed to be conjugate fractures in a north-trending zone of extension along a major strike slip fault.

At Reed Creek in the Kluane Range, Reed Creek Placers exposed a large zone ) of quartz-carbonate-graphite associated with a large feldspar porphyry dyke. The alteration is similar to the gangue adhering! to coarse gold nuggets found in the canyon? and returns sporadic assays? Similar mineralization could occur on the Nathan Minerals Ltd Glen property on the Burwash uplands, where 600 m of diamond drilling is in progress, following extensive geophysical surveys. Near Haines Junction, Harjay Exploration Ltd obtained more than 17.1 g/t gold from a sample of quartz vein material cutting a gabbro sill on the Colton claims.

In the Ruby Range, United Keno Hill Mines Ltd soil sampled and mapped three claim blocks which comprise the Ruby property. Anomalous gold and arsenic values are associated with scorodite-stained breccia along a north-striking thrust fault.

In the Rancheria area, **Oropex** Minerals Inc trenched and sampled on the Matthew property where a small high-level rhyolite intrudes Lower Cambrian phyllite and dolomite. The intrusion is cut by an east-trending fault zone containing one metre of brecciated rhyolite and quartz vein material with a silicified rock-flour matrix assaying up to 6 g/t gold.

Trevor Bremner is a staff geologist with the Geology Section, Northern Affairs Program, Whitehorse.

Canada Tungsten

Corporation

Mining

#### Jan./Feb. 1990