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TO MOSQUITO CREEK FILE

DATE AUGUST 30, 1982.

FROM L.P. STARCK

COPIES TO

SUBJECT MISCELLANEOUS NOTES RESULTING FROM
A VISIT ON AUGUST 26TH AND 27TH, 1982
TO MOSQUITO CREEK MINES

- Mosquito Creek had an interest in Wessex which has since been sold.
- Mosquito Creek has recently had dealings with Ralph Kline and V.A. Tanaka (General Manager - Mining) of Asamera.
- Gordon T. Campbell, Nutuna Financial Corporation, is asking for a \$75,000 introduction fee plus a deal on 150,000 of Peregrine shares.
- Mosquito Creek directors:
 - Roger Touregny - Chartered Accountant
 - Ken Blakey -
 - J. Hall - Omega Hydrocarbons representing Sieben
 - R.E. Humphreys - Rico Management Enterprises Ltd. (fine gold recovery process)
- Sierra Nevada Gold Ltd. and Rhyolite Resources Inc. offered to operate the property for 50 to 60% of the revenue with a guaranteed line of credit of \$300,000 after all the accounts were paid. The principles, Jim Stewart and Mark W. Lee, engaged Canadian Geoscience Corporation, Keith Farnie, to do a report on the property, ie:
 - pencil structures which have long linear intent being related to drag folds or crumples in the limestone but which plunge to the NW at 21°.
 - development requirements for a section of the mine of 100 feet of dip between 2 levels (100 feet) and 150 feet of length.

ore development (12.8ft.) 10.2 ft. (150 ft.) / 12 ft. = 1,632 tons

drift	150 ft. at \$80	\$12,000
x cut	100 ft. at \$60	6,000
raise	50 ft. at \$60	3,000
chute		2,000
diamond drill	8 (100 ft.) \$24/ft.	<u>19,200</u>

\$42,200 / 1,632 tons

Or \$25.85 / ton

- requirements for 2,100 tons/mo in 1982 are 386 ft. of drift, raise and x-cut and 1,029 ft. of diamond drilling.
- recycle ball mill oversize.

- Campbell did the recent geophysical and soil sampling on the property.
- Dudas, formerly of United Keno, recently visited the property.
- Dick Lewis, Prince George, is the local Mines Inspector.
- the 1 level audit collared by Home was recommended by Brodie Hicks and Don Cannon. It was driven for 100 feet (10 by 10 feet with timber at 8 centres) before it was abandoned.
- Fry's miners - Joe Flack and Jim ?
- Dwight Polquin, Wesley Mines
- Dave Johnson's father who was the mill superintendent at the Nickel Plate up to 1955 lives in Kamloops.

FINANCIAL

- the Company's staff and hourly employees and Fry's employees presently total 53 of which 4 are on vacation.
- 22 men are employed underground and of these 19 are employees of Fry (this includes Bell, who is Fry's coordinator).
- 4 miners are employed of which 2 are Company employees.
- beneficiation plant employees:
 - crusher - 2 including the loader operator
 - plant - 7 including 1 helper on day shift
 - 1 superintendent
 - 1 foreman
 - 1 helper
 - 1 assayer
- the stope bonus is 80¢/cubic foot less direct wages (the volumes are measured by survey). The average miners bonus is \$9 per shift. The other underground employees are paid half of the miners monthly bonus up to a maximum of \$6 per shift.
- the hoist operator is on bonus.

- dimensional timber is \$300/BM
- the R. F. Fry & Assoc. contact is Aarl Sykorla
- the July Mosquito Creek debts were: (Peregrine has no share of this debt)

Fry	\$600,000 (they will settle for \$360,000)
Bank	\$225,000
Misc.	\$175,000
- Fry was paid for 1,483.3 tons in July and 1,626.6 tons in June.

EQUIPMENT

- shaft:
 - 6 x 17 feet with 2 - 6 x 6 foot hoisting compartments and a 5 x 5 foot manway.
 - the shaft collar is at elevation 4,573 feet.
 - the sump is 46 feet below 4 level.
 - the head frame is 68 feet high with the sheaves at 55 feet which after allowing 8 feet clearance gives 46 feet of workable elevation.
 - the Dorr Oliver skips weigh 1,800 pounds.
 - the 60 x 30 inch Ingersol Rand (ex Mosher) hoist drums will handle 1,800 feet of 1 inch rope for an effective depth of 1,550 feet (the drums are grooved and shells are available for 7/8 inch rope)
 - a recent rope test was 108,000 pounds.
 - the air in the shaft is down cast.
 - the hoist speed is 800 feet/minute.
 - the head frame is heated in the winter.
- all the generators on the property are 580 volts and the voltage is stepped down to 440 volts.
- the main ventilation fan is rated at 35,000 cubic feet per minute.
- 11.8 cubic feet per ton is used for rock in place.
- 16.0 cubic feet per ton is used for broken rock.

FINANCIAL (Cont'd.)

- Mill superintendent (Len Cairns) \$3,250/month
- Geologist (Larry Carlyle) \$3,300/month
- Assayer \$2,400/month
- Surveyor \$2,400/month
- Assistant assayer \$1,925/month
- \$13.47/hour Crusher operator, Ball Mill operator
- \$14.20/hour Auto mechanic, Mine and mill mechanic.
- \$12.15/hour Crusher helper, Mill helper
- \$12.80/hour Loader operator
- \$13.15/hour Surface mechanic
- the Company board allowance to all employees is \$175 every 2 weeks or \$17.50 per shift.
- Fry's labour charges:
 - Labour
 - plus 23% of labour
 - plus vacation pay
 - plus supervision
 - plus a board allowance of \$21/shift/man
 - plus 7% overhead on the above 5 items
- Fry's performance bonus: \$6.98 per ton up to 2,000 tons mine and hoisted per month, however if 2,000 tons is attained the rate is \$9.30 per ton. If the tonnage exceeds 2,000 tons then all tonnage mined and hoisted in excess of 2,000 tons is at \$11.62 per ton.
- Fry's interest on unpaid accounts is 2% per month.
- leased equipment:
 - 920 Caterpillar front end loader (mill) - 48 month lease with 26 months to go at \$920/month
 - D6 Caterpillar tractor (mine) - 60 month lease with 26 mths. to go
 - Atco mine wash trailer (from Fry) - \$450/month
 - 4 crummies (from Fry) - \$1,166/month in total
 - 1 Flygt pump (from Fry) - \$125/month

EQUIPMENT (Cont'd.)

- mine equipment:

- 4 - 12 B mucking machines
- 6 - double drum slushers - 3 Joy (15 hp)
 - 2 Gardner-Denver (10 hp)
 - 1 ? (25 hp)
- 13 - jack legs
- 4 - stopers
- 3 - 10 hp electric fans
- 1 - 35 hp electric fan
- 3 - air fans
- 3 - Mancha mules with 1 spare battery
- 3 - battery chargers
- 1 - 50 hp single stage pump (for the shaft sump)
- 1 - 35 hp single stage pump
- 4 - Flygt pump
- 20 - pound rail
- 25 - 1 ton (36 cubic feet) side dump cars

BENEFICATION PLANT

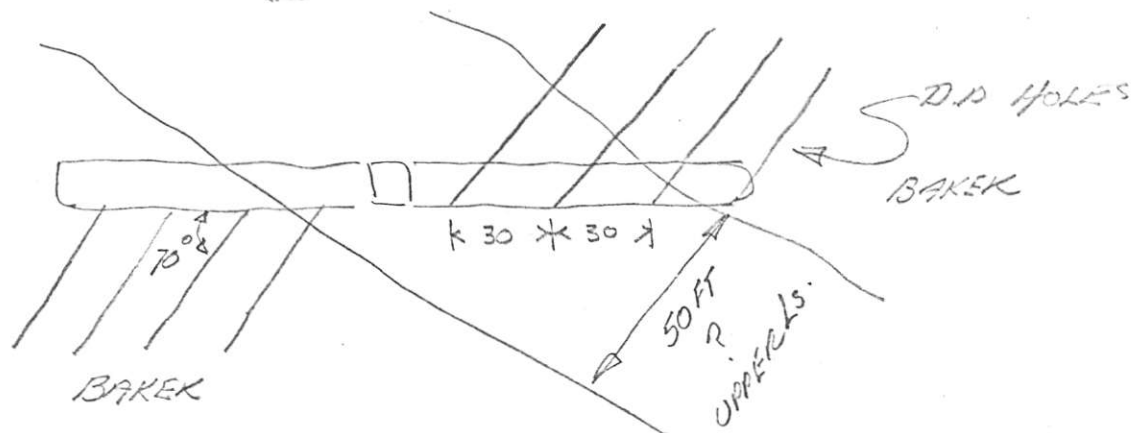
- the process water requirements are 12 gal/minute, however, the Company has a permit for 40 gal/minute .
- the process water is pumped from a 15 foot deep well near the creek with a 7½ hp pump. There is a standby pump.
- the coarse ore bin holds 200 live tons.
- the fine ore bin holds 200 live tons
- their main problems in the crushing plant is with wet muck (3½ to 5% moisture) and the size of the jaw crusher.
- the jaw crusher is apporximately 16 x 24 inches.
- the gyrator crusher is an Allis Chalmers (approximately 18 inches).
- the gyrator discharge is screened by a double deck screen the screen on the top deck has square openings and the screen on the bottom deck has elongated openings.
- the product from the primary crusher is minus 4 inches and from the secondary 3/4 inch.
- the thickener is rated at 70 tons.
- there are 2 gold presses of which one is a spare. The presses are opened every 2 weeks.
- the cyanide is fed automatically.
- the mill has handled up to 140 tons per day but will handle 120 tons without any appreciable recovery problems.

BENEFICATION PLANT (Cont'd.)

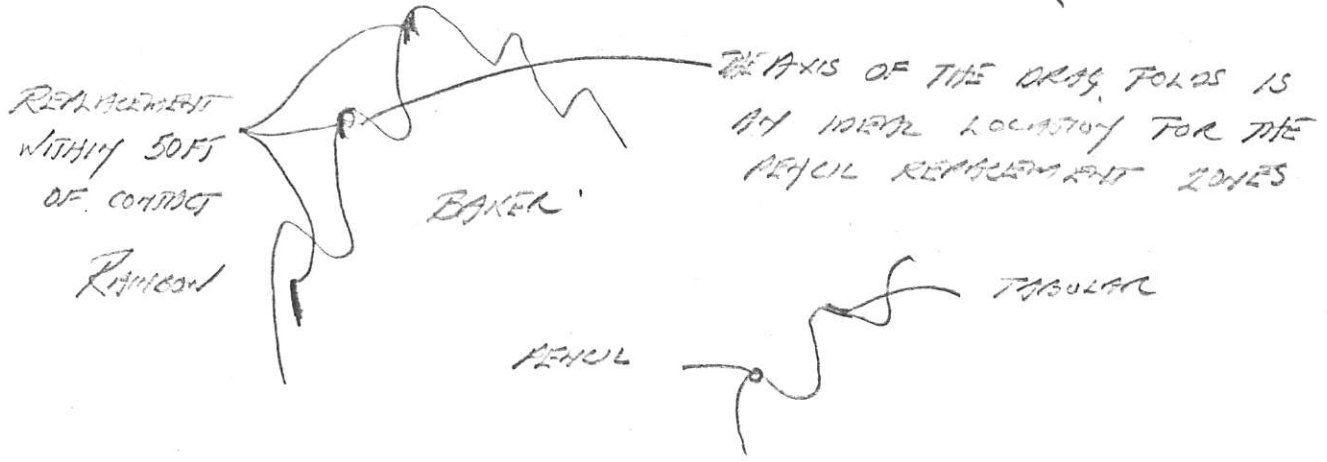
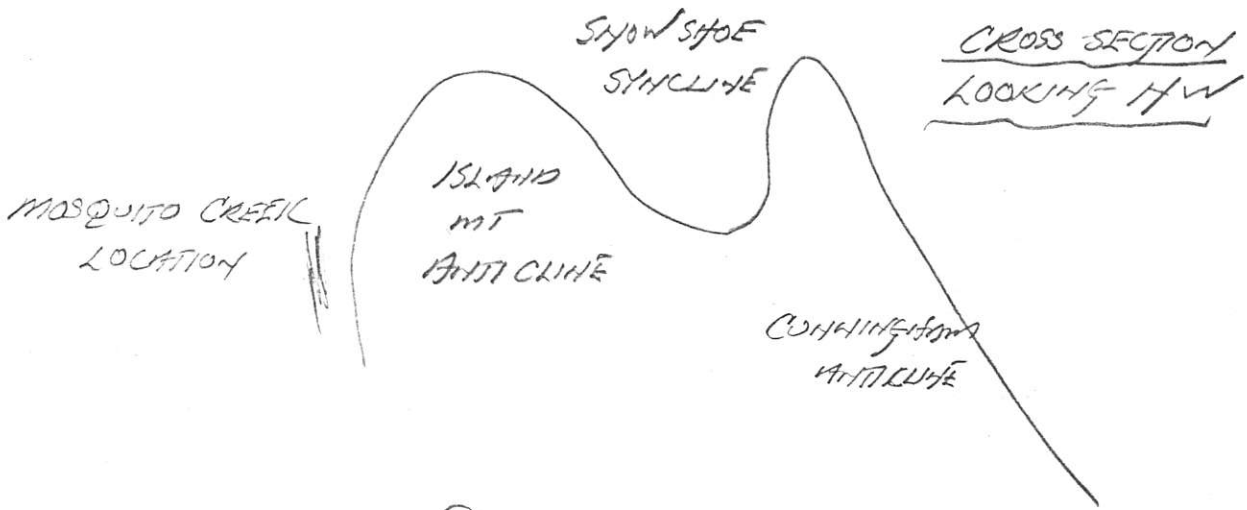
- chlorine rather than SO_2 is used to neutralize the cyanide.
- the 2 agitators have approximately 24 hours retention time.
- the 5 x 6 foot ball mill has straight cut gears.
- clarifier
- the zinc is used to precipitate the gold.
- the grind is maintained at 85 to 90% minus 140 mesh in order to minimize sliming.
- 2½ and 3 inch balls are used in the ball mill.
- 22 inches of vacuum is maintained on the filters by using 2 vacuum pumps.
- there are 2 filters in the plant and fresh water rather than barren solution is used for the wash on the second or last filter.
- the cyanide consumption is 1½ lbs./ton.
- the ph of the tailing is maintained at 11.
- in the future there could be a problem with ferro cyanide in the solid tailings.
- the mine-mill haul is contracted at \$3/ton.
- Priestman & Assoc. test the effluent monthly.
- the agent for the weightmeter checks the unit about every 3 or 4 months.
- lime is occasionally used ahead of the ball mill.
- there are 2 Cummings diesel electric units in the benefication plant of which 1 is a spare. Also, there is a small air compressor.

GEOLOGY

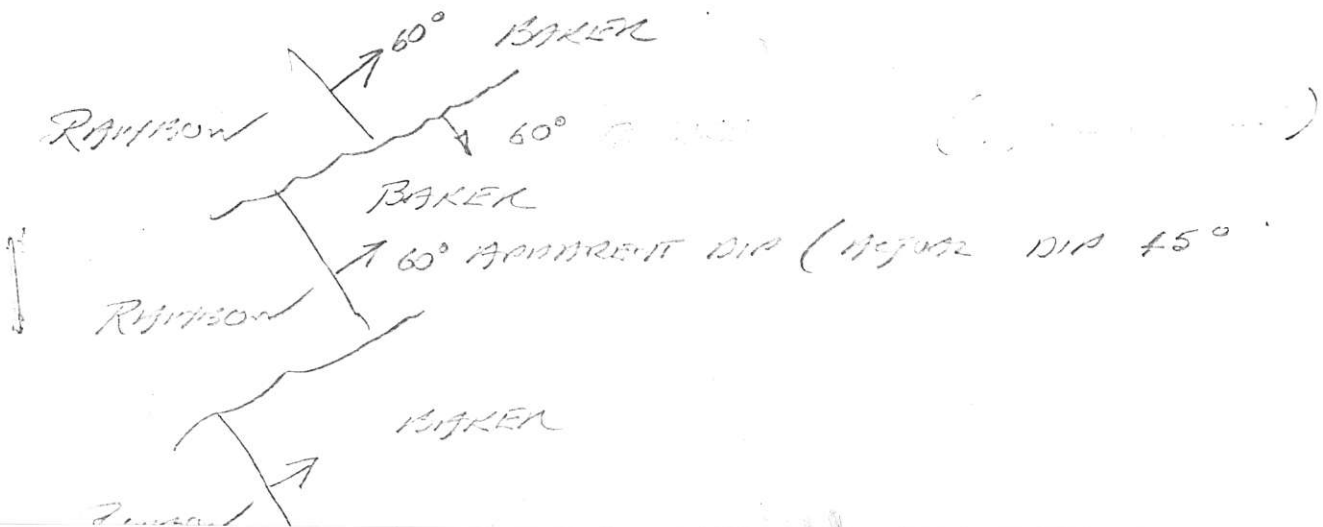
- the light coloured upper limestone on 1 level is considered stratigraphically younger than the dark limestone in the S W end of 2 level.
- the ore bodies are referred to as pencil (12 x 15 feet by 12 to 15 feet) or tabular (30 feet by 10 to 15 feet).
- the contact or in structuring of the Rainbow and Baker formations is apparent in one of the cross cuts on 2 level and in several crosscuts on 3 level.
- the #4 quartz stope at the NW end of 3 level produced 1,900 tons grading 0.3 oz. of gold.
- generally fine pyrite is evident in the core of the replacement orebodies whereas on the fringes the pyrite is coarse and associated with galena and arsenopyrite.
- generally 8 plus and minus 70° holes averaging 110 feet are drilled from the crosscuts which are driven for 100 to 110 feet on either side of the drifts. The hole spacing is at 15, 45, 74 and 105 feet from the walls of the drift.



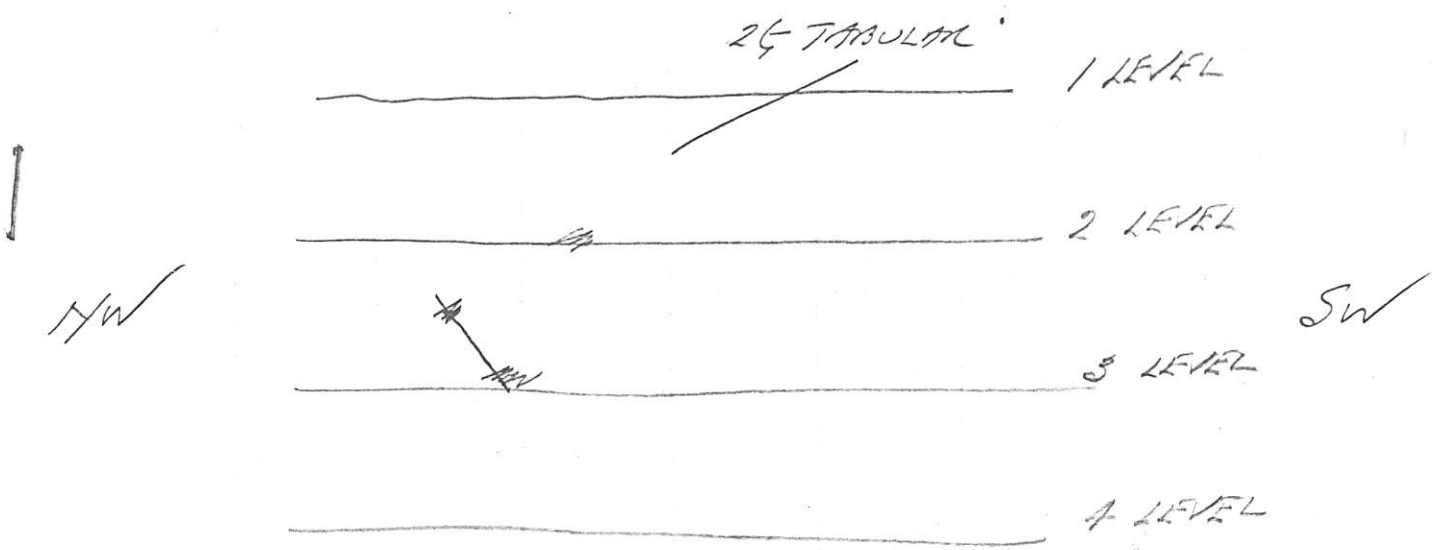
- the orebodies are generally on the foot wall of the limestone beds or within 50 feet of them.
- in 1972, 4 surface diamond drill holes were drilled on induced polarization anomalies. Also some surface diamond drilling was done on the surface outcrops.
- in 1973, 38 percussion holes were drilled on the surface.
- in the aggregate some 85,000 feet of diamond drilling has been done on the property.
- the strike of the orebodies is NW-SE.
- recent geophysical work was done by Campbell using the VLF Ranka 16 unit.
- regionally the structure is metamorphosed sediments of the pre Cambrian age or later the folding is considered to have occurred at the same time as the metamorphism.
- the main geochemical markers are silver, bismuth and arsenic.



- the replacement system is related to N striking crossfaults and possibly quartz veins which one considered to have been the feeders from depth.



- potential reserves: (See W.G. Hainsworth)



Yours truly,

L.P. Starck

LPS:dk