

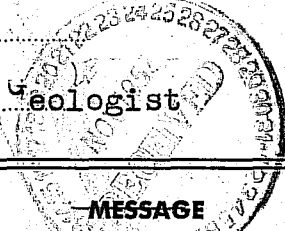
# INTER-OFFICE CORRESPONDENCE

FROM Rod Macrae

DATE Nov 18th, 1957

TO E. O. Chisholm, Chief Geologist

SUBJECT Jake Group M.C.s



A	✓	W.S.R.	✓
	✓	R.I.B.	
	✓	E.O.C.	✓
	✓	H.A.P.	
	✓	R.D.S.	✓
		E.C.B.	
		G.P.P.	
		E.L.D.	
		J.I.K.	
		E.C.J.	

### MESSAGE

(TO BE COMPLETED IN TRIPPLICATE)  
ADDITIONAL REPORT ON JAKE CLAIMS  
BY R. MACRAE

### History:

Sixteen claim group named the Jake claims were staked in September 1956, following the discovery, during reconnaissance prospecting, of a 400 ft long "gossan" zone on the first tributary east of the junction of the Tay River and the Teddy Creek on the south east side of the latter. Preliminary soil sampling indicated several geo-chemical highs and a development programme was planned for the 1957 season. The claims are registered in the name of Prospectors Airways Co Ltd.

### Development- 1957:

In August, following completion of work on the Gal group and the Vangorda Mines area, our combat team commenced work on the Jake group. Claim surveying established a pannel fraction between the two blocks of 8 claims varying from 200 to 500 feet in width; this was staked as the Bonanza fractions and title transferred to the company.

Geological mapping on a scale of 300 ft indicated the claims on the east side of the block are underlain by massive chert cliffs at the north end and by quartzites, chert, calcareous cherts and quartzites, some black chert, and slates on the south end. The gossan was identified as a rusty conglomerate, thin-bedded, dipping flatly to the north. No metallic minerals were found and drilling later established the conglomerate is less than 10 ft thick and overlying unconsolidated gravel. A small outcrop of biotite quartz plagioclase porphyry, not considered important at the time, was mapped on Jake No 3. The western block of claims cover the flats of Teddy Creek valley and very few outcrops were seen.

The only structure identified with any degree of certainty is a siltstone bed (later identified as a calcite-rich quartzite bed) that outcrops on Jake 1, 3, and 6 MCs and appears, from two major outcrops, to trend 145 degrees. Later work outside the Jake 7 & 8 on the east side of the block suggests this quartzite bed may outcrop in the form of the top of a tight fold.

Mineralization finds on the surface during mapping were minor and sparse. The two large areas of siltstone (altered quartzite) and shale contains some disseminated pyrite and minor pyrrhotite. Iron oxide stain is seen in a number of places on the southern half of the block and flocculent iron exudes in two creeks, tributary to Teddy Creek and in three places in Teddy Creek itself.

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FROM .....

DATE .....

TO .....

SUBJECT Jake (cont.) .....

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## MESSAGE

(TO BE COMPLETED IN TRIPLICATE)

Quartz and pyrite fill narrow fissures in the calcareous quartzite. The 400 ft conglomerate is limonitic, but the amount of iron sulphides in the quartzites does not appear to be sufficient to account for the limonitic matrix, here.

Drill cores, examined showed sparse brassy crystalline pyrite less than 2%; some splashes of fine grained pyrrhotite, less than 1% and one 1/2 inch piece of copper carbonate. Detailed prospecting of the claims, late in the season, located more copper carbonates on Jake 14 in the form of one piece of float and a shattered outcrop on Jake #1 of a mixture of quartz and epidote. Grab samples examined by Dr Robert Thompson at UBC showed brown sphalerite in a matrix of pyrrhotite. Thompson also examined the drill core samples in the same general area and stated the zinc mineral bearing rock could have resulted from the alteration of the rock in the drill core. Assays of the grab samples gave 2.7% Zn and 0.10% Cd with nil Pb.

A geo-chemical survey was completed over that part of the claim block between the creek flats and the chert cliffs. Soil samples were taken at intervals of 300 feet on lines at 400 ft spacing. The background base metal content averaged 75 ppm and in the original interpretation of the results two fan-shaped anomalies were plotted, one having its point source at the head of the rusty conglomerate, the other at the base of steep-tightly folded chert cliffs on the Jake 13 & 16 boundary. Further study of the survey, (your letter Sept 23rd refers) suggest the geo-chemical anomalies are not significant.

A magnetometer survey conducted over the same area indicated an anomaly on Jake 1, 3, & 6 M.Cs. of about 1000 gammas above background with background at 900 gammas. Within the boundary of the anomaly, rock samples from surface specimens did not show appreciable occurrence of magnetite or pyrrhotite. Core from one of the two 85 ft plus holes drilled within anomaly showed on examination, in thin section, 14 to 15% pyrrhotite in 4 arbitrarily selected samples. The mag anomaly is therefore due, probably to the pyrrhotite content in the quartzite.

(SEE SPECIMEN'S IN TORONTO OFFICE FROM JAKE DRILLING 203)

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TO.....

SUBJECT Jake (con't)

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A ground electro-~~metric~~ magnetic field survey over the general areas where the mag anomaly (major) and the minor anomaly had been located was attempted at the end of the season. The results of the survey were inconclusive; the survey is incomplete.

Six PDH were attempted on the block; one on Jake #4 established that the rusty conglomerate was approx 10 feet thick and underlain by unconsolidated gravel. The other five holes were attempted on or near the crest of the mag. anomaly. Two holes reached depths (core lengths) of better than 80 feet. Very minor chalcopyrite was seen in the deepest hole PDH No 4. Mineralogical examinations of core in one of the deepest holes, of four arbitrarily taken sections showed that pyrrhotite occurred as fine grained concentrations, from 5 to 15%. ( see R.M. Thompson's Oct 28th letter)

Factors affecting an assessment of the Jake development:

There is little similarity between the soil sampling results obtained by Paxton in 1956 and Papezik in 1957, except that the highest concentrations of base metal ions seem to occur down-slope from the rusty cong. Papezik's work is judged to be the more accurate.

The magnetic anomaly secured on Jake #1, 3, 4, & 6 appears to stand up as the most useful piece of information secured from the geophysical work even under the most critical examination. Originally, the pyrrhotite content of the underlying rocks was not considered sufficient to cause the anomaly; later work, suggests there is up to 15% concentrations of Pyrrhotite in the area of the anomaly. The work of the mag crew is considered reliable; As an E.M. team their work should be judged with caution since they were not experienced and unfamiliar with the Ronka Loop, the instrument used.

Surface prospecting and examinations of drill cores established that zinc and cadmium minerals occur associated with pyrrhotite, where intense alteration of the of what was probably a calcareous quartzite bed occurs.

Studies of the geological mapping of the claims indicate that the sediments which outcrop on the northeast corner of the block are cherty quartzites, tightly folded, whereas the south block is possibly underlain by one long fold having an axial plane striking 145 deg Az and extending for at least three claim lengths.

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# INTER-OFFICE CORRESPONDENCE

FROM Rod Macrae DATE Nov. 18th, 1957

TO E. O. Chisholm, Chief Geologist SUBJECT Jake Group Development



A	N
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R.J.B.	
E.O.C.	
H.A.P.	
R.D.S.	
G.C.B.	
G.P.R.	
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J.L.K.	
E.C.J.	

(TO BE COMPLETED IN TRIPLICATE)

Conclusions:

Work done to date on the Jake group of 19 mineral claims indicates that there is erratic distribution of base metal ions in the surface overburden on Jake 1,2,3,4, & 12, 13, 14 mineral claims. The spread is such that it does not point to one or more concentrations of sulphides on the claims.

A magnetometer survey, coupled with mapping of the area encompassed by Jake 1-8 M.Cs. indicates there is a calcareous quartzite bed some 400-600 feet wide that apparently owes its magnetic qualities to concentrations of pyrrhotite up to 15%. Alteration of this quartzite is intense in one location, so much so that the pyrrhotite concentration is increased to 35%; the rock becomes an epidote skarn. Associated with this concentration of skarn there is sphalerite and a calcium mineral.

The magnetic anomaly is not supported by the results of the E. M. survey; the value of the latter results is doubtful.

Pack-sack drilling was of a test nature and establishes that the quartzites can be drilled, -core recovery is excellent, -to depths of 100 feet

Recommendation:

It is recommended that the area of the magnetic anomaly be investigated by stripping and pack-sack drilling to establish the ~~nature~~ identity of the cause of the anomaly and the type of sulphides associated with the pyrrhotite.

If it can be established that the sulphides occur as narrow shears or bands, it is recommended that development be ceased. If encouraging widths and grades of sulphide mineralization are encountered, then, it is recommended that the E.M. survey be completed and, depending on the results of this programme, a heavy drill programme be instituted.

Respectfully submitted,  
*Roderick Macrae*  
Roderick Macrae

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