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Report for 1971

on

SOUP GROUP

Kliyul Creek

10 claims

(Verbal agreement with W. H. White
and K. C. McTaggart)

Lat. 56°27', Long. 126°03'

Introduction

A verbal agreement was reached with W. H. White and K. C. McTaggart of the University of British Columbia with a possibility to option the often-discussed property. A few pack-sack holes were drilled on their Soup property in order to test the grade and the amount of possible leaching of a magnetite-chalcopyrite skarn. The geology of the property has been interpreted thoroughly by the owners and was only briefly investigated.

Location and Access (see location map ref. 133-71-13)

The Soup mineral claims, about 12 miles northwest of Aiken Lake, are situated northeast of the deep valley of Kliyul

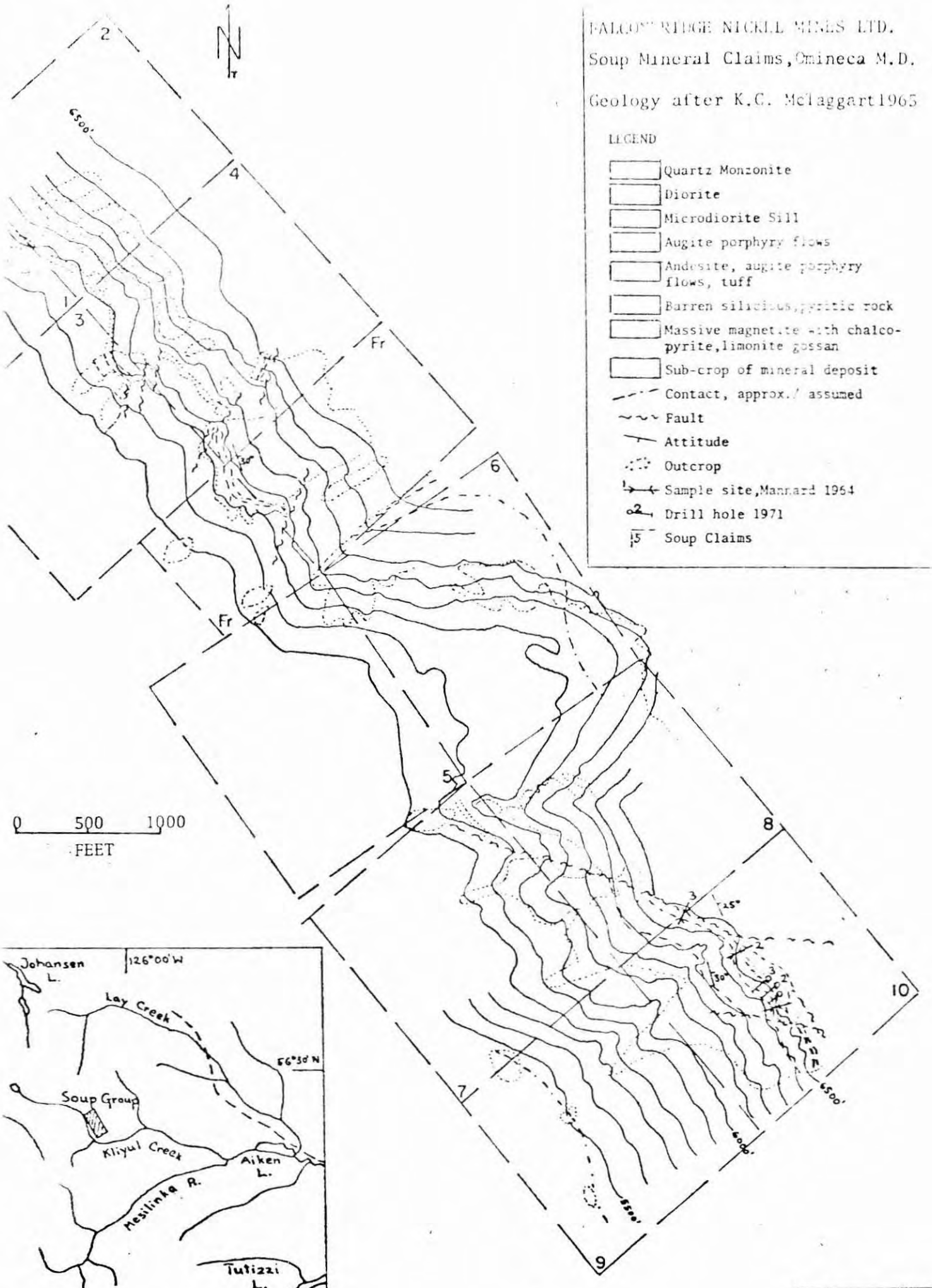
FALCON RIDGE NICKEL MINES LTD.

Soup Mineral Claims, Omineca M.D.

Geology after K.C. McTaggart 1965

LEGEND

- Quartz Monzonite
- Diorite
- Microdiorite Sill
- Augite porphyry flows
- Andesite, augite porphyry flows, tuff
- Barren siliceous, pyritic rock
- Massive magnetite with chalcopyrite, limonite gossan
- Sub-crop of mineral deposit
- Contact, approx./ assumed
- Fault
- Attitude
- Outcrop
- Sample site, Mannard 1964
- Drill hole 1971
- Soup Claims



N.T.S. 94-D-8

Creek. Elevations range from 4000 feet in the valley bottom to 7000 feet at the crest of the ridge.

The property can be reached by pack-trail from Aiken Lake via the valley of Kliyul Creek. Helicopter landings on the claim group are somewhat hazardous and dependent on the wind conditions.

For the 1971 drilling work the company's helicopter was used exclusively, and R. Heaworth's skill in toe-in landings was once again greatly appreciated.

Property and History

The ten Soup claims are part of the original Shell Group staked for Leitch Gold Mines in 1947 by P. E. Olsen. This part of the claim group was later allowed to lapse and no work has been carried out until 1964 when W. H. White staked the present ten Soup claims.

In August 1964 G. W. Mannard, on behalf of S.W. Potash, examined and sampled the property (ref. 1), and in July 1965 K. C. McTaggart mapped the claim group geologically (ref. 2). During 1970 El Paso briefly re-examined and mapped part of the property.

Work in 1971

From July 11-14 a fly camp was maintained in the bottom of the Kliyul Creek Valley. The two drillers and their equipment were toe'd-in daily at the drill site on the steep slope. Water supply was very limited, dripping from a few snow remnants. Apart from the local skarn horizon, the claim group was only briefly examined by the writer.

General Geology (see map ref. 133-71-13)

The Soup claims are underlain largely by andesitic volcanic rocks of the Upper Triassic Takla group. These rocks have been intruded by diorite and quartz monzonite related to the middle-late Jurassic Omineca intrusions.

The Takla lavas strike northerly and dip moderately eastwards into the mountain slope. Several northwesterly and north to northeasterly striking faults offset the lava horizons.

A copper-gold-magnetite skarn band appears to lie parallel to the lava layers and constitutes the main deposit.

A. Takla Group

The Takla Group rocks can be subdivided into two groups on the property: (1) A stratigraphically lower group of grey to greenish lavas with minor small feldspar phenocrysts, and (2) an overlying group with augite porphyry flows and flow breccias. Most rocks of this upper division are strongly altered where augite has been converted to hornblende and chlorite, and plagioclase to saussurite. Veinlets of calcite, epidote and quartz are common. The upper division contains the presumably conformable mineralized skarn horizon.

B. Omineca Intrusions

Diorites occur in the most eastern part of the claim group and were only examined in float. They are medium-grained hornblende diorites where hornblende is partly altered to chlorite. Close to the valley bottom in the southwestern part of the claim group, quartz monzonites intrude the Takla andesites.

This rock type compares well with the medium- to coarse-grained biotite quartz monzonites of the Hogem Batholith. The volcanics show a slight increase in pyrite towards the contact.

Structures

The lavas of the Takla Group strike northerly and dip about 30° to the east. Layering is hard to recognize and measurements are based on general appearance of rock stratification from a distance as well as by the position of the mineralized bed which seems to be conformable. Limited flow layering has been observed.

A major fault striking approximately N70°W cuts the mineralized horizon and offsets it left lateral for approximately 1200 feet. In the northern part of the property, several northerly striking faults with apparently opposing movements offset the mineralized horizon in both directions.

Mineralization

The mineralization on the Soup claims is restricted to horizons of magnetite-rich skarn which appear to be conformable within the upper division of the Takla Volcanics. Wallrocks are slightly silicified and slightly pyritized augite porphyries.

The best outcrop of the mineralized horizon is found in the southern part of the claim group on Soup claims #8 and #10. Here, a 10 to 50 feet thick magnetite horizon outcrops continuously for more than 1500 feet length. To the north this same horizon is offset 1200 feet by the N70°W striking fault and outcrops are discontinuous. On claims #2 and #4, two mineralized horizons occur 100 feet stratigraphically apart.

The skarn rocks consist largely of magnetite with scattered aggregates of pyrite and finely disseminated chalcopyrite. Volcanic inclusions (generally 5-20 Vol. %) contain actinolite, garnet, epidote and calcite.

A striking feature of all mineralized outcrops is their state of oxidation. Much of the material exposed is a porous aggregate of magnetite and limonite, and only intensive pickwork will reveal the original sulphides. Surface leaching seems to have affected the copper sulphides strongest, since copper staining is generally found in the volcanics underlying the mineral deposit, whereas iron staining is restricted to the mineralized horizon.

Previous surface sampling across the mineral horizon on Soup claim #10 by G. W. Mannard assayed:

	Outcrop Width	Au.	Cu.
Site 1	20'	$0.09 oz/t.	0.91%
Site 2 (500 ft. north of site 1)	35'	$0.06 oz/t.	0.46%
Site 3 (1000 ft. north of site 1)	30'	$0.10 oz/t.	0.44%

Diamond Drilling

Three packsack holes were drilled (plus one abandoned) to test the grade of the mineralized horizon at hoped for unweathered depth. The drill sites, dictated by topography and water supply, were all on Soup claim #10, close to Mannard's sample sites. The included map ref. 133-71-13 shows the position and direction of the respective holes.

The first hole (DDH-1A) had no core recovery and was abandoned after 15 feet. The other three holes were started above the mineralized horizon and intersected the mineralization in the best case at 20 feet true distance from the surface. Because of broken ground the core recovery was extremely poor (average approx. 50%) in all holes, and logging as well as sampling was done somewhat arbitrarily. The core was logged (Appendix 1) and split for assays, and is presently stored at the Falconbridge warehouse. The drilling costs were applied for two years' assessment as per original verbal agreement.

Results

The concluded drilling intersected partly unleached material at depth which contained scattered chalcopyrite and pyrite. The sulphide content remained generally low (below 2%), except in DDH-3 where 2-5% disseminated chalcopyrite was noticed over approximately 3 feet.

The core was split and assayed for gold and copper, in five-foot sections.

	Footage	Au.oz/t.	Cu.%	
DDH #1	0-5'	tr.	0.07	Average 5-15':
	5-10	0.02	0.32	10' - 0.37% Cu.
	10-15	0.03	0.43	
DDH #2	0-5'	0.03	0.26	
	5-10	0.01	0.15	Average 0-20':
	10-15	0.01	0.09	20' - 0.16% Cu.
	15-20	0.01	0.13	
	20-25	tr.	0.05	
DDH #3	0-5'	0.02	0.33	
	5-10	0.02	0.52	Average 0-25':
	10-15	0.02	0.10	25' - 0.28% Cu.
	15-20	0.01	0.26	
	20-25	tr.	0.18	

Soluble iron assays showed an average of 35% Fe.

Conclusions

The obtained copper and gold values are generally lower than Mannard's surface values and there is no indication locally of any required grade improvement at these shallow depths. Leaching seems to be predominant within the first five to fifteen feet from the surface. However, judging from sections of good core which were recovered, grades do not improve underneath this leaching zone. No further work by FNML is recommended on this claim group unless a good case can be shown to expect at least 2-3% sulphide copper.

T. Gyr

FNML
Vancouver, B.C.
March 1972

TH For location see STARTED July 12, 1971

map ref. 133-71-13 COMPLETED July 12, 1971

6500' LENGTH 26 ft.

NG 225°

-85°

FALCONBRIDGE

DIAMOND DRILL RECORD

PROPERTY

SOUP MINERAL CLAIMS

PURPOSE Test grade and amount of leaching in Cu-Fe-Skarn

LOGGED BY D. Bell, F. Gyr

HOLE No. 1

CLAIM Soup #10

SECTION

OFFSET

PLOTTED

FOOTAGE	DESCRIPTION	SAMPLE	FOOTAGE	C. L.	Au. oz/t	Cu. %		
0-15'	Magnetite-chalcopyrite-skarn		0-5'		tr.	0.07		
	with 5-10% volcanic or tuff inclusions;		5-10		0.02	0.32		
	5-15% pyrite and chalcopyrite in blebs;		10-15		0.03	0.43		
	limited malachite and limonite on fractures.							
	Core extremely broken, recovery approx. 60-70%.							
	Fractures at 45°, 60° and 90° to core axis.		Average:	5-15'				
15-26'	Same as above, but ground core recovery approximately 10%.		10' - 0.37% Cu.					
26'	End of Hole.							

FALCONBRIDGE
DIAMOND DRILL RECORD

PROPERTY: SOUP MINERAL CLAIMS

NORTH: For location see map ref. 133-71-13 | STARTED: July 13, 1971 | COMPLETED: July 13, 1971
ELEV.: 6500' | LENGTH: 26 ft.
BEARING: 235°
DIP: -72°

PURPOSE: Test grade and amount of leaching in Cu-Fe-Skarn
LOGGED BY: D. Bell, T. Gyr

HOLE No.: 2
CLAIM: Soup #10
SECTION:
OFFSET:
PLOTTED:

FOOTAGE	DESCRIPTION	SAMPLE	FOOTAGE	C. L.	Au. oz/t	Cu. %
0-26'	Magnetite-chalcopyrite skarn		0-5'		0.03	0.26
	50-75% magnetite;		5-10		0.01	0.15
	10-20% disseminated pyrite;		10-15		0.01	0.09
	1-2% chalcopyrite.		15-20		0.01	0.13
	Inclusions of fine-grained volcanics (chlorite, plagioclase).		20-25		tr.	0.05
	Limited malachite.		Average: 0-20':			
	Core badly broken. Recovery approximately 60-70%.		20' - 0.16% Cu.			
26'	End of hole.					

ORTH For location see STARTED July 14, 1971

AST map ref. 133-71-13 COMPLETED July 14, 1971

LEV. 6500' LENGTH 33 ft.

BEARING 225°

DIP -75°

FALCONBRIDGE

DIAMOND DRILL RECORD

PROPERTY

SOUP MINERAL CLAIMS

PURPOSE Test grade and amount of leaching in Cu-Fe-Skarn.

HOLE No. 3

CLAIM Soup #10

SECTION

LOGGED BY D.Bell, T. Gyr

OFFSET

PLOTTED

FOOTAGE	DESCRIPTION	SAMPLE	FOOTAGE	C. L.	Au. oz/t	Cu. %
0-25'	Magnetite-chalcopyrite-skarn		0-5'		0.02	0.33
	30-40% magnetite;		5-10		0.02	0.52
	10% pyrite;		10-15		0.02	0.10
	2-5% chalcopyrite,		15-20		0.01	0.26
	approx. 50% andesite (amphibole, chlorite,		20-25		tr.	0.18
	plagioclase).					
	Sulphides finely disseminated in magnetite.		Average: 0-25':			
	Malachite and azurite in upper 10 feet.					
	Core badly broken, recovery approx. 60-70%.		25' - 0.28% Cu.			
25-33'	Same as above but core completely ground.					
	Recovery approximately 10%.					
33'	End of hole.					