2154

GEOLOGICAL REPORT ON STAR CLAIMS

50 Miles South 50° East of Dease Lake
58°, 129 S.E.

By D. Mann

and
N.W. Reynolds

Claim Owner: GREAT PLAINS DEVELOPMENT COMPANY OF CANADA, LTD.

June 23, 1969 to July 17, 1969

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INTRODUCTION

Location and Access

The Star Group of mineral claims is located in the Liard Mining Division, 50 miles South 50° East from the small settlement of Dease Lake, B.C. Precisely, they are situated at 58°01' North and 129° 05' West.

Access to the property is by helicopter which can be chartered at Dease Lake, B.C.

Size of Area

The Star Group of 150 mineral claims covers approximately 6,000 acres.

GEOGRAPHY

The claims lie within the Cassiar Mountains, which in this area are generally steep-sided and rise to elevations of 6,000 feet with relief being approximately 2,000 feet.

Treeline is at about 5,000 feet elevation below which large amounts of overburden cover most of the bedrock. Thus outcrop exposures are only good above treeline and in the cirques.

Method of Investigation

A program of geological mapping and prospecting was conducted on the property from June 23, 1969 to July 17, 1969,

by seven men. The mapping was done, with the aid of air photos on a scale of 1" = 1,000'. Also during this time several copper showings were found and several days trenching was done to evaluate the occurrences. The steep terrain combined with the very wet and unpredictable weather made work difficult.

GEOLOGY

Regional Geology

Regionally the property lies in a belt of Triassic volcanics between the Hotailuh batholith and the main Cassiar batholith. The Cassiar batholith intrudes mainly sediments and meta-sediments of Upper Devonian and Lower Mississipian age whereas the Hotailuh batholith to the southwest of the Cassiar batholith intrudes mainly Triassic volcanics and minor Triassic sedimentary rocks.

The property lies in a belt of basic Triassic volcanics between the two batholiths. This belt is dotted with intrusive stocks which are probably outliers of the Hotailuh batholith.

Geology of the Star Claims

The Star claims are underlain mainly by Triassic basic volcanics which are intruded from the west by a small tongue of fine grained pink syenite from the Hotailuh Batholith. These volcanics dip slightly to the east and have been divided into dacite, dacite porphyry, andesite, red volcanics and an undifferentiated area of basic volcanics. These units

are not always well defined, especially among the dacite, dacite porphyry and red volcanics, as they tend to grade into one another.

The composition of the volcanics has not been determined exactly by thin section work, however the present terminology was used to simplify the mapping.

The dacite is a purple-reddish aphanitic rock which in certain flows contains feldspar crystals as phenocrysts and locally was termed a dacite porphyry. The "red volcanics" are a deep reddish brown aphanitic rock usually occuring as pods within the other units or as separate thin flows. The red colouring is probably due to minor amounts of hematite as an accessory mineral. The andesites are generally very dark green in colour and occur mainly as dykes. The basic volcanics comprise an area of volcanics ranging in composition from an andesite to a basalt. The individual flows have not been mapped separately.

Structure

The main structural feature on the claims is an anticlinal fold, plunging slightly to the south. In the vicinity of the axis of the anticline, numerous faults occur. The fault zone containing the No. 1 showing has cut the fold and displaced one of the limbs. An andesite dyke has been intruded along this fault zone.

Economic Mineralization

Copper in the form of chalcocite and malachite occur along probalbe whear zones and in nearby andesite dykes. The shear zones range in strike from N to N 30° E and dip steeply to the west. Assays as high as 4.5% Cu have been obtained from these zones. Showing No.1, which is the largest, is approximately 200 feet long and up to 25 feet wide, however, the mineralization was concentrated in fractures along the walls of the andesite dyke. Minor amounts of chalcocite was found disseminated in the wall for several inches on either side of the fractures. Five trenches were blasted out across the No. 1 showing which revealed mineralization only on the walls of the fault zone. Other showings of copper mineralization were found and the assay results follow. Generally the mineralization does not appear to occur consistently in large quantities, although there are numerous showings over a large area.

CONCLUSIONS AND RECOMMENDATIONS

Although numerous copper occurrences were found, no areas containing economic concentrations of copper were recognized.

Nov 27/69

N.W. Reynolds
and
D. M. Mann

December 1, 1969

QUALIFICATIONS OF NORMAN W. REYNOLDS

I, Norman W. Reynolds, with business and residential addresses in Calgary, Alberta, do certify that:

1. I am a geologist employed with Great Plains Development Company of Canada Ltd.

2. I am a graduate of the University of Alberta, Edmonton, Alberta. (B.Sc. in Mathematics and Geology).

3. I have been engaged in mineral exploration since 1965, and have worked in Western Canada, and Alaska.

4. I personally was on the property and supervised the work on the property.

Respectfully submitted

N. W. Reynolds, B.Sc.

QUALIFICATIONS OF DONALD M. MANN

I, Donald M. Mann, with business and residential addresses in Calgary, Alberta, do certify that:

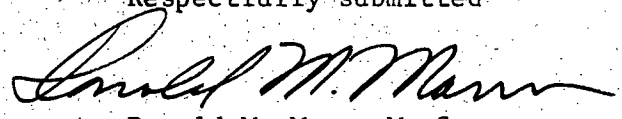
1. I am a geologist employed with Great Plains Development Comapny of Canada Ltd.

2. I am a graduate of the University of Colorado, Boulder Colorado (B.A. M.S. in Geology).

3. I have been engaged in mineral exploration since 1957, and have worked in the United States and British Columbia.

4. I personally was on the property and supervised the work on the property.

Respectfully submitted



Donald M. Mann, M. S.

A P P E N D I X

ASSAY CERTIFICATE

DATE July 18, 1969

FILE NO. 5476-8

WHITEHORSE ASSAY OFFICE

P.O. BOX 346. WHITEHORSE. YUKON

RECEIVED FROM

SAMPLE NO.	GOLD Oz. PER TON	SILVER Oz. PER TON	Copper	Molybdenum				
5476-8					Showing			
A001	0	0	.05	0		#1		
A002	0	0	.25	0	Showing	#1		
A003	0	0	.22	0	Showing	#1		
A004	0	0	4.5	0	Showing	#2		
A005	0	0	.42	0	Showing	#4		
A006	TR	.58	1.0	TR	Showing	#4		
A007	0	0	.65	0	Showing	#7		
A008	TR	0	.21	0	Showing	#8		

ASSAYER Geo. Spallin

NOTE The showings are numbered and located on the accompany map.

TIME DISTRIBUTION

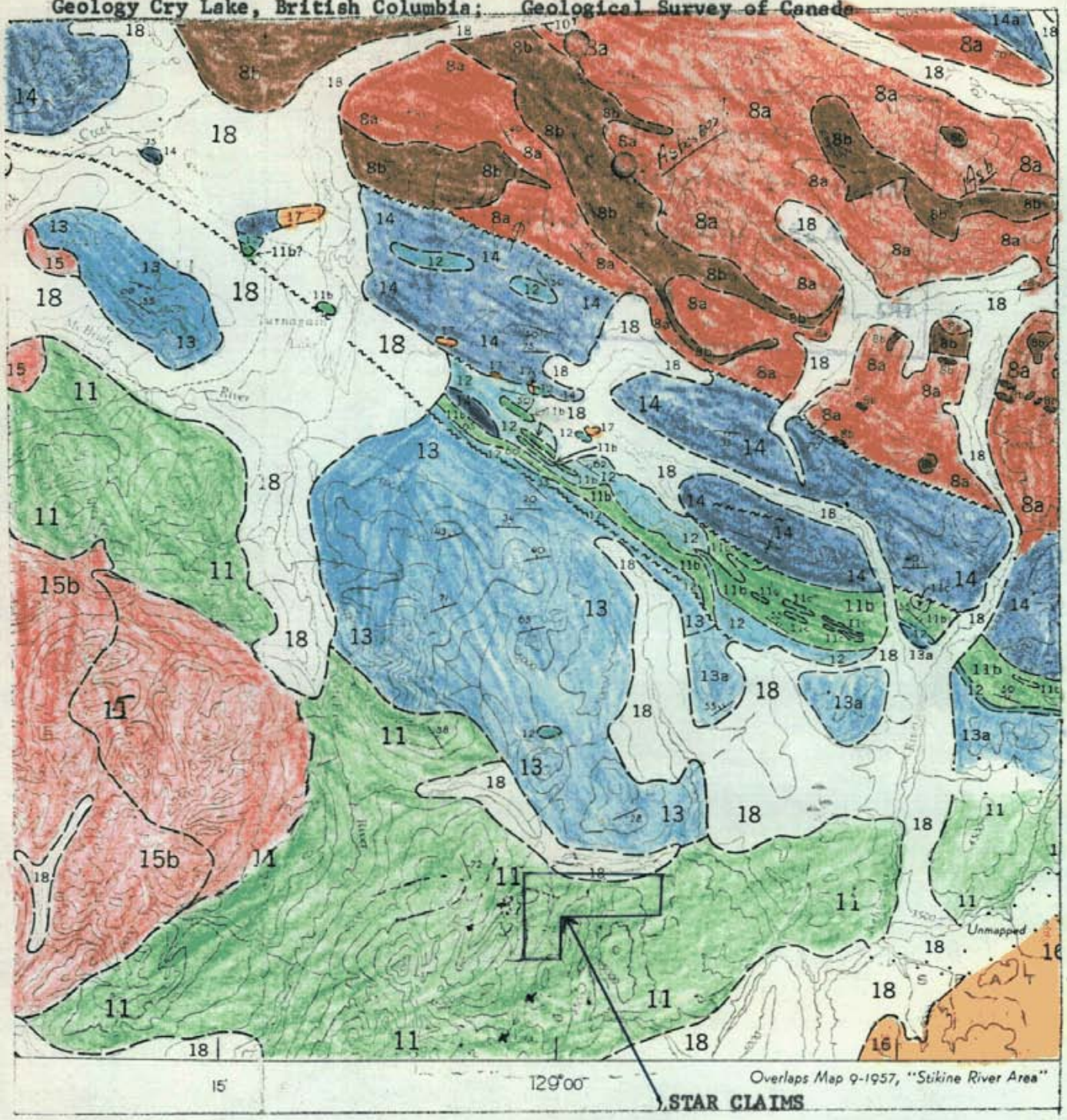
Geological Mapping & Prospecting

NAME	DATES (Inclusive) 1969	TOTAL DAYS	RATE/DAY	TOTAL
C.J. Gilders	July 2	1	$ 65.00	$ 65.00
D. Mann	July 10	1	$ 65.00	$ 65.00
N. Reynolds	June 23-25 July 2, 4-7 July 10-11	10	$ 65.00	$650.00
G. Abbott	June 24-30 July 1-11 July 12-14	21	$ 18.00	$378.00
B. Watts	June 24-30 July 11-16	13	$ 14.50	$188.50
	Total Man Days	46	Total Cost	$1346.50

TRENCHING

NAME	DATES (Inclusive)	TOTAL DAYS	RATE/DAY	TOTAL
C.J.D. MacDonald	June 24-30 July 1-16	23	$ 15.00	$345.00
A.Wienard	July 4-14	11	$ 16.00	$176.00
B. Watts	July 1-10	10	$ 14.50	$145.00
	Total Man Days	44	Total Cost	$666.00

from: Gabrielse, H.; Map 29-1962
Geology Cry Lake, British Columbia; Geological Survey of Canada



LEGEND

18. Quaternary: fluviatile gravel, sand and silt, till and alpine moraine.
17. Tertiary and Quaternary: Basalt, olivine basalt.
16. Upper Cretaceous and Paleocene: conglomerate, sandstone, shale
15. Jurassic and/or Cretaceous: Undifferentiated granitic rocks, mainly quartz monzonite.
14. Jurassic: greywacke, phyllitic slate, conglomerate
13. Jurassic: greywacke, sandstone, siltstone, shale.
12. Upper Triassic: Limestone
11. Upper Triassic: Basic volcanics mainly andesite and basalt.
8a Devonian and Mississippian: chert, argillite, argillaceous quartzite, greenstone, diorite, meta-diorite, conglomerate, limestone.
8b Devonian and Mississippian: serpentiinized peridotite

Department of
Mines and Petroleum Resources
ASSESSMENT REPORT

NO. 2154 MAP #1

REFERENCES CITED

Gabrielse, H., Cry Lake, British Columbia;
Geological Survey of Canada
Map 29-1962; 1962.

Souther, J.G. and Armstrong, J.E.;
"North Central Belt of the Cordillera of British Columbia."
The Canadian Institute of Mining and Metallurgy, Special
Volume No. 8, 1966.

29°00'
58°05'
BV
AP
DP
AV
D
RV
AND
L
SY
AREA OF TRENCHING
STAR 61
STAR 62
STAR 101
STAR 102
BV AND
RV D AND
Department of
Mines and Petroleum Resources
ASSESSMENT REPORT
NO. 2154 MAP #2
2154
To accompany geological report by N. Reynolds & D. Mann on Star Group Liard Mining Div. Nov 27-1969
N Reynolds
December 1, 1969
LEGEND
AV ACIDIC VOLCANICS
L LATITE
RV RED VOLCANICS
D DACITE
DP DACITE PORPHYRY
BV BASIC VOLCANICS
OUTCROP
PLUNGING ANTICLINE
AND ANDESITE
SY SYENITE
AP APLITE
CU SHOWING
CLAIM POST
CLAIM GROUP BOUNDARY
CONTACT (assumed)
FAULT
GREAT PLAINS
DEVELOPMENT COMPANY
OF CANADA, LTD.
GEOLOGY
OF
STAR CLAIMS
1000 0 1000 2000
FEET
JULY, 1969