L49-115 SW.
Moyie Claims.
St. Eugene Mining Corp. Ltd.
Smith, Alexander: Engineer.

82G/5W

0001

3

1

R E P O R T

on

MOYIE GROUPS 1-6 and the ML55 M.C.

FORT STEELE M. D.

BRITISH COLUMBIA

by

ALEXANDER SMITH

REPORT AND GEOLOGICAL MAPS

SUBMITTED AS ASSESSMENT WORK

ON THE MOYIE GROUPS 1-6 AND THE ML #55 M. C.

MOYIE LAKE, B. C.

NOVEMBER, 1947

The five geological maps submitted:

#1 Barkshanty Creek
#2 Glencairn Creek
#3 Tradedollar
#4 Larsen Creek
#5 Etna Creek
#6 [illegible] 1" = 1500'

All Scale 1"= 200'

show the principal outcrop areas on and adjacent to the Moyie Groups. The relative positions of these maps is shown on the accompanying claim map (scale 1"= 1500') Only a few small isolated outcrops, not yet surveyed in, are not shown. The stratigraphy has been mapped in detail in an attempt to work out the structure of the area.

The area covered by these maps is underlain by the upper third of the Aldridge formation and by the overlying Creston. These sediments are mainly quartzites and argillites. They are folded into a broad open anticline plunging at about 10° to the north. Its axis (Strike N 19° E) underlies Lower Moyie Lake. On the east side of the Lake the beds in general strike northwesterly and on the west side northeasterly.

Superimposed on this relatively simple major structure are a series of rolls and crumples in the strata. In addition there has been considerable block faulting. Stratigraphic displacements of as much as 900 feet were found. The orientations of many of the faults causing these displacements are not known.

The zones of crumpling and rolling of the strata are accompanied by parallel faults. These range from N 30° W to N 20° E in strike. Occasionally fracture cleavage is developed in thin beds involved in second order folds. The cleavage usually strikes between due north and N 10° W.

Another prominent set of fractures strikes N 70° W and dips steeply southwest, i.e. nearly normal to the anticlinal axis. The main and south veins at the old St. Eugene Mine occupy such fractures. The Aurora and Guindon veins have the same orientation and lenses of ore similar to that at the St. Eugene. Elsewhere in the area there are narrow (1"-10") quartz veins with this trend. These have a gangue and wall rock alteration similar to the St. Eugene veins but are either devoid of sulphides or carry only pyrite.

There are no large Purcell sills in this Moyie Group Area. About a mile to the south are the 2 sills shown on the map submitted for the ML 60-71 assessment. A 20 ft. dyke of similar quartz gabbro strikes N 40° E and splits into two N 10° E branches which cross the St. Eugene vein struc-

tures. One or two narrow sills (4'-8') occur on both sides of the Lake in about the same stratigraphic horizon.

There are no known distinctive and persistent horizon markers. Also a large portion of the area is drift covered. To get a more comprehensive picture, it is planned to map a much larger area on a scale 1"= 1000' and submit this as additional assessment work.

Alex C. Smith.

November 13th, 1947

C O S T S T A T E M E N T

TO GEOLOGICAL MAPPING 48 CLAIMS

MOYIE GROUPS 1-6 INCLUSIVE AND ML #55 M. C.

done between January 1 1947 and Nov. 13, 1947

FIELD WORK:

Alexander Smith and J. A. Robertson -

40 days each - $4,000.00

OFFICE WORK:

Alexander Smith and J. A. Robertson -

40 days each - 2,000.00

$6,000.00

DISTRIBUTION:

To Moyie Groups 1-5 inclusive -

$800.00 per group - $4,000.00

To Moyie Group #6 - 700.00

To ML #55 Claim - 100.00

$4,800.00

CERTIFIED CORRECT

Alex C. Smith.

November 13th, 1947

CRESTON FORMATION:

Quartzites - 735 [11] Argillites - 736 [10]

ALDRIDGE FORMATION:

Thick Bedded Quartzites (- 4" Av.beds	Light Blue - 740½	9
" " " banded	Dark Blue - 741	8
Thin " " & Arg. Quartzites	Light Brown - 6239	7
" " " " " banded	Dark Brown - 746½	6
Argillaceous Siltstone	Terra Cotta - 745½	5
Argillites	Violet - 742	4
Rhymmetically Banded Marker Horizons (MAR)	Lavender - 742½	3
Purcell Sills & Dykes	Green - 738½	2
Veins	Scarlet - 744	1

A B B R E V I A T I O N S

ROCK TYPES:

Q - Qyartzites
AQ - Argillaceous Quartzites
S - Siltstone
AS - Argillaceous Siltstone
A - Argillites
MAR - Chubbs banded marker bed

BANDING:

B - Banding
aB - occasional Banding
fB - faint Banding
hB - hairlike Banding as in Argillites
dB - distinct Banding
pB - pronounced Banding
gB - gradational Banding
MAR - Chubbs banded member

ROCK COLOR:

DG - Dark Grey
MG - Medium Grey
SG - Silver Grey
LG - Light Grey
Bl.- Black
T. - Tan
RN.- Rusty Weathering
Gn.- Greenish
Pu.- Purple
Y - Yellowish

SEDIMENTATION FEATURES:

bp.- bedding plane
ib.- interbeds
Rm.- Ripple marked
Rd.- Rain drop casts
Mc.- Mud cracks
C. - Concretions
Gl.- Glistening Crystals
XC - Crystal Casts on bedding plane
Frc.Clv. - Fracture Cleavage

GENERAL:

gr. - grading
cl. - clean
Ma. - Massive
cr. - Crudy (messy)
Thick
Thin
Alt.- Alteration
Simi.- Similar
Sa. - Sandy
Sh. - Shaly
Sl. - Slaty
Bio.- Biotite
V. - VEIN

25' Gn ½"-2" Q, B., Mc.
Creston

10' Gn 1"-2" Q
10' Gn ½"-4" Q
Creston

FAULT DRAW & SWAMP

Gn G ½"-2" Creston

½"-2" Creston

15' SHAFT
7" VEIN

20' Gn G ¼"-14" Q

Gn G ½"-2"
Fe Cl.

25' Gn. G 1"-3"
10' Gn 2"-6" Q

Gn. G. 1"-12" Q, Mc, S Rw.

Gn G 1"-8"

1"-4 VEIN

MG 1"-10" Q

D Gn G 1"-10" Q

PURCELL SILL ?/c ?

M & LG 1"-10" Q

Gn. G. ½"-4" Q.

DG ¼"-½" A, S MAR.

Gn G ¼"-1", Mc, Rm,
Wavy Line Creston

Gn G ½"-4"

20' Gn. G ½"-8" Q., S

VEIN 3"
Gn G 1"-10" Q, B
3500' R.w.

1"-2" B

THICK BEDS

12" VEIN

Gn G ½"-1" Q

M & LG 1"-10" Q

DIS. POST LEAD 16 P

Gn G ½" Q

Gn G 1"-4" 2 S B

LG 6"-10" Q

MAR ½"-1"

¼"-¼" MG A

MG ¼"-½" A.S, S B.

BENCH.

DG A Q

SG. ⅛"-½" A S, S MAR.

¼"-½" MAR

S. G. ½"-1" A.S. S B

10' MG ⅛"-¼" A

30' Gn G. ½"-2" Q, S MAR. B.

D.D.H. 9
270° - 5°

DDH # 9
0'-260' RHYTHMIC BANDED
DG 1/100"-½" A & M & SG ¼"-1" A.S.
44-81' FAULT ZONE, BR. BANDS, ARG.
168' FAULT

S. G & S Gn G ¼"-¼" A.S. Rw.

Gn. G. ½" Q

SYLVESTRE 'S
UPPER FIELD

FLAT

ML 38

ML 37

ML 39

ML 49

ML 43

MOYIE LAKE

ML 50

ML 48

Department of
Mines and Petroleum Resources
ASSESSMENT REPORT
NO. 1 MAP #1

BARKSHANTY CR. AREA 1"=200'

GLENCAIRN CR AREA 1" = 200'

ADEL 2

ST. JOHN FR.
L4414

MENLEK
L4415

PETER
L665

ST. EUGENE
L666

BALTIMORE
L 4413

MOYIE LAKE

ML4

RUSTLER
L6133

KOOTENAY FR.
L6131

ML55

COLUMBIA
L6132

JAMESON
L4416

JUMBO FR.
L6134

ML3

BURTON
L6135

DAILY FR.
L6136

ML19

ML20

ML21

ML2

DOMINION
L6137

ML16

ML17

ML18

LAKE VIEW
L4417

ML15

TRADEDOLLAR
L 4418.

TRADEDOLLAR AREA 1"=200'

Department of
Mines and Petroleum Resources
ASSESSMENT REPORT
NO. 1 MAP #3

No. 1
Map 3

LARSEN Cr. 1"=200'

Department of
Mines and Petroleum Resources
ASSESSMENT REPORT
NO. 1 MAP #4

ML 47
ML 46
ML 53
ML 52
ADEL 4
MABELLE L.9893
AUEOEA L 7017
FOSCO L 6126
GUINDON L6127
SUEPERSE L9805
FERFOLE L9806
HORSE SHOE L 7022
LARSEN TUNNEL
LOWER MOYIE LAKE
ALDERIDGE
CRESTON
CREEK
ML. Posts
Surv. Line
DD.H. #6 -45°, 505'
DD.H. #5 -54°, 950'

ETNA Fr. AREA 1"=200'

SURPRISE L9805

FRISCO L6126

ML 46

FEREOLE L9806

ADEL 4

ROBERTS L2330

TORONTO L2168

DOROTHY L2167

GUINDON L6127

MOYIE LAKE

ADEL1

MAPLE L2169

HORSESHOE L7022

MABELLE Fr. L9393

KRUGER L2331

ML 42

CAMBRIAN L7662

AURORA L7017

DURANGO L7016

ETNA L7015

PORTLAND L7205

ADEL3

ML 41

ML 40

ML 14

ML 9

ETNA Cr. AREA 1"=200'

MAP OF MOYIE MINING CAMP FORT STEELE M.D.

Scale
0' 1500' 3000' 4600' 5280'
ONE MILE

BASED ON M.R.M. 12T 200.

Nov. 1945
C.M.C.

BARKSHANTY CREEK

LIMIT OF FAVORABLE AREA

ANTICLINAL AXIS

M.L.50 M.L.49 M.L.39 M.L.38 M.L. 51 M.L.48 BARKSHANTY M.L. 43 M.L.37 M.L.52 M.L.47 M.L.44 M.L.53 M.L.46 M.L.36 M.L.30 M.L.29 M.L.35 M.L.31 FR. M.L.28 M.L.27 FR. M.L.26 M.L.25 FR. M.L.24 M.L.42 FR. M.L.41 M.L.40 M.L.14 FR. M.L.9 M.L.4 M.L.13 M.L.8 M.L.3 M.L.12 M.L.7 M.L.2 M.L.11 M.L.6 M.L.1 M.L.55 FR. M.L.23 FR. M.L.22 M.L.21 M.L.19 M.L.20 M.L.15 M.L.16 M.L.17 M.L.18

L.9805 SURPRISE C.G.

L.6126 FRISCO C.G.

LARSEN CR.

L.9806 FEREOLE C.G.

L.9807 C.G.

ALICE FR

L.6127 GUINDON C.G

L. 2330 ROBERTS C.G.

L. 2168 TORONTO C.G.

L.2167 C.G.

DORATHY

L. 7022 HORSE SHOE C.G

L. 2169 MAPLE C.G.

L. 2331 KRUGER C.G.

L.7015 Etna Creek

L.7016 DURANGO C.G.

ETNA C.G

L.7205 PORTLAND C.G.

ETNA CR.

L.9393

L.7662 CAMBRIAN C.G.

MABELLE FR

ADEL 1

ADEL 2

ADEL 3

ADEL 4

ADEL 5

ADEL 6

ADEL 7

MOYIE

L.3545 HALF MOON FRACTION C.G

L.7005 DELTA FR

L.756 LAKE SHORE C.G

L.669 MOYIE C.G

HELL TO PAY FR

L.3546

L.668 QUEEN OF THE HILLS C.G.

L.4419 DUDE FR

L.4414 ST. JOHN FR.

L.667 C.G. LORETTA

L.4415 MENLEK C.G.

L.6133 RUSTLER FR C.G.

L.4416 JAMESON C.G

L.6135 C.G. BURTON FR

L.4417 LAKE VIEW C.G.

L.6137 DOMINION C.G.

L.4418 TRADE DOLLAR C.G

GLENCAIRN CR.

GLENCAIRN

L.7004 CLINTON FR.

L.666. ST. EUGENE C.G.

L.1380

ROSE FR. C.G.

L.665 PETER C.G.

L.4413 BALTIMORE C.G

KOOTENAY FR

L.6131

L. 6132 COLUMBIA FR C.G.

JUMBO FR L.6134 C.G.

L.6136 DAILY FR C.G

L.4405 SOCIETY GIRL C.G.

L.4409 BLACKPINE C.G

L. 13827 JOHN D C.G

TRADE DOLLAR

LOWER MOYIE LAKE

ANTICLINAL AXIS

Department of Mines and Petroleum Resources
ASSESSMENT REPORT
NO. 1 MAP #6

Area Controlled Prior to Nov. 1945.
Area Staked in Nov. 1945.
CLAIMS : 1" = 1500'

No. 1
Map 6

LOCATION OF PRINCIPAL OUTCROP AREAS ON 1"=200' GEOL. MAP