018607

COATES

31/MAY/68 HEINÄNEN

Traverse on west side of Mountain - North of Swan Lake

Camp: Air Photo 12346-380

P.M. 1:45

#1 Helicopter Drop of ½ mile west of peak.

Rock: Green-gray, pyritic slates. - pyrite altered to limonite

slaty parting strong 1 30/105

~<5 mm. spacing

3% "pyrite" cubes (rust spots) altered TC-68-4

80 040

Qtz filled tension frac.

#2 Gray & Green slates as before - (minor gray bands)

120 / 120

#3 Some graphitic slates dark grey to black. in Talus TC-68-6

#4 Float lying Black graphitic slate directly below (TC-68-12 Geochem West Bank)

TC-68-7

TC-2 #COATES

JUNE 2/68 ← HEIKIANEN

TRAVERSE 2 North of Pleasant Lake. A12231-239

The rock series consists of interbedded black and grey-green slates striking 30 I 100 NEO and dipping at moderate angles to the north.

Ridge tops are characteristically ~~top~~ barren of soil cover and are generally composed of v.f.g. TC-11 glyde or tightly folded and ~~gty~~ fractured banded chert (1mm. to 5 cm.) TC-13 to 15 Many gty. veinlets form stockworks in this brittle unit and ~~it~~ several ~~contain~~ mafic dikes striking approx N-S and up to 20' wide

were seen. TC-12

The weathering resistance of the banded chert unit coupled with its distinctive appearance may make it a useful regional marker horizon.

(The chert formation bears a strong resemblance to the chert horizon outcropping to the west of Enid Lake (Fortin Lake Area.)

Stop # 1 is shale (slate)

& qtz.

50

154

* Spec

TC-68-17

166

15 ?

28

\# Pre-Cambrian phyllite
qtzite

80

116

5/6/68 COATES
SANFORD

12:00 (NOON) A-12346-370

\#1 Largely qtz grains fine to m.g.
10% rust specks (after pyrite?)
qtz eyes ~3mm bluish.
Tough. flaggy in places
// to Bg 3-5cm. spacings
No visible feldspar. few qtz
veins or stringers

Well foliated 1 - 2 mm.
parting normal. W.S. Gray br
F.S. Rusty br.

TC - 68 - 19 (3 Spec.)

Largely talus covered.

#2 F.g. Rusty weathering pyritic
quartzite F.S. med. to dark
gray. Visible pyrite cubes
largely rusted finely foliated
Biotite quartzite? TC-20

#3 Quartzite 55 104
no-feldspar. F.g.
as at locality 1 TC-21
Spec.
one contains 2% ± Feld.

#4 Shaley sandstone 75 110
TC- 22 065 80

Shaley bands ~ 10' wide
form interbedded with the
#zite - weathered out to form valleys

#5 Fault zone in shaley quartzite - rusty qtz & c.g. carbonate Cavities filled

" " " 100

118 Seds

#6

m. to coarse grained quartzite ridge has pebbles up to 2cm. in diam of white quartz.

60 098

#7 Quartzite m. to c.g. as before -

TC-23

80 108

#8

Quartz in slate 55 120

-0° C zero

#9 Qtzite v. f. g. 48 056

#10 F. g. Qtzite 54 144

11/ Slaty qtzite 180 120

12/ 11 170

13/ M. to c.g. white qtz S.S.
trace amount of Feld. only.

F.S. rusty. 130

Qtz-Slaty band 100' wide 140

#14 TC-68-25 micaceous qtzite

M.G. 60 146

15/ Green slate
TC-68-26 032 68
75° 136

16/ Slaty qtzite - F.S. rusty
W.S. buff - well foliated
TC-27 170

17/ Sericitic qtzite 62 150
TC-68-28

A12344-445

2:05 JUNE 7

COATES

WAUGH

#1 Green slate fairly uniform 1-2mm. banding low pyrite content (almost nil) 45 100

small amt. of rust on sheen surfs.

#2 Limy looking silty argillite

Sample 2 - 3 specimens

#3 Dike of muscovite-qtz porphyry "Aplite" stands as high ridge massive - buff - W & F.S. some pyrite.

Rain and Snow visibility 50 ft. Shut down mapping

COATES

June 12, 68 A12346-357

#1 Rusty gray brown
feldspathic quartzite. TC-68-30
Qtz filled tension fractures F to M.g.

#2 50
Conglomeratic feldspathic 160
qtzite, foliate frags of cherty
argillite? qtz. mica along
foliation planes (buff-gray)
W.S. Med. gray. TC-68-31

#3 Graywacke with rhythmic
graded bedding - tops south
series of three 30 150
Varved layers seen T
18" to 2' in thickness TC-68-35
Three photographs

#4 W.S. light gray.
F.S. black, blocky — 45
bedded carbonaceous — 160
impure feldspathic
quartzite

TC-68-36

#5 end of o.c. see ridge
of carbonaceous siltstone
debris. West of the crest
of the ridge can safely
be assumed to be the
Phyllite Creek → argillite contact

#6 Limey argillite rubble in
valley on crossing

TC-68-37-39

#7 6° C 302 70 124

Gray argillite
blocky slightly limey

#8 35 104

Gray & Black argillite, blocky
weathering, some cherty beds
and some calcareous and grey siltite
beds. Qtz vein filled
tension fractures

#9 Gray and green 40 090
slates highly fissile

#10 Graywacke - chert pebble
conglomerate 36 104
similar to cgl in the
Vole creek area.
fissile - rusty shear surfaces.

#11 Gray slate

$\frac{30}{1}$ 080

#12 Rain streaked

purply slate $\frac{30}{1}$ 085

TC-68-42

#13 Black chert and sub-

black argillite

TC-68-43

AIR PHOTO A12245 - 241

June 24

FAIR

#1 Fairly massive Gray

(leucocratic) medium grained

amphibole 15% Bi 5%

Qtz ~ 35% Feld 45%

TC- 68-50.

Granodiorite throughout to station #2 - uniformly medium grained 15 - 20% mafics in central parts Bi up to 10%

TC - 68-51

#2

Rusty, occasionally micaceous, 140/85

gray to white quartzite - laminated non feldspathic fine grained. Folded and contorted at many places 130/85

TC- 68 - 52, 53, 54 Hole up.

rusty alteration around
the intrusion contact
observed.

3. Folded gray to 140 66
white impure quartzite
small % of Feldspar 2%-4%
W.S. Rusty - prox of the
intrusion F.S. light gray to
medium gray (Bi rich varieties)
some re x'talization

4. Slaty quartzite 148 24
prominent parting - earthy
weathered S. (Buff-rust)
W.S. - gray [TC-56]

5. slaty quartzit 149 18°

#6 Quartzite rusty W.S.
massive thickly bedded
members with slaty interbeds
not so highly folded as
previously

#7 Same 150 070 22 ~~82~~

#8 Phyllite
TC-68-57 88 130
micaceous sheen on
slippage surfs. W.S. Brange
F5 dark gray

#9 Proterozoic quartzite 132 8°
#10 "

#10 contact material — more phyllitic lightly folded

11 Quartzite - folded — 55 / 130

very little phyllitic layering

AIR PHOTO A12346-365

III Coates & Claridge

June. 28/68

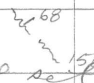
#1 M.g. quartzite

rusty W.S. Buff. to grey.

F.S. rusty. brown. Blocky.

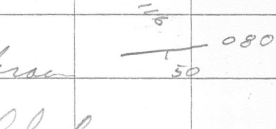
weathering some schistose to

phyllitic bands.



Prominent fracture set

#2



Fine grained

qtzite W.S.

somewhat earthy brown

F.S. grey. - folded

laminae of shale - much variation

in attitude - Boudinage of

qtz sand - several m.m. to 2 cm.

width of resistant members up to 2 ft

3 Shaley silty argillite
W.S. brown-gray.
F.S. dark-gray to black.
weak to moderately developed
slaty parting

#4 Finely laminated gray limestone
W.S. light gray. F.S. 82 121
medium to dark gray.
finely crystaline to argillaceous
only 50' visible (faulted off
succeeded by qtzite
5/ slaty quartzite - depression
in ridge with much talus

6/ Prot. qtzite m.g. 85 140

7/ F.g. limey? cemented siltstone
W.S. medium gray. F.S. m. gray.
fine grained. TC-6-28-3

8/ Prot. quartzite M.g.

140
85

#9 red and green slates

#10 gray to black chert
and cherty argillite Unit
3

#11 Gray slates
fine parting 64 150
with graywacke-chert pebble
cgl. unit as part. - forms
ridge tops
#12
Gray chert

#13 Gray. slates. - somewhat
blocky weathering not too
fissile

#13 Gray slate 155 40

#14 Gray slate not too fissile mod. well dev slaty cleavage 132 36

#15 Black argillite with 5% narrow qtz. Veinlets 36 154

#16 Black chert and some argillite outcrop 300' across 142 85

#17 Gray-green slate 120 78

#18 White-grey Ord-Dev. qtzite 62 120

#19 Banded chert on hilltops

TC-28-6-5

Limestone & slate not more than 20' wide

120
85

21/ Green slate

101
49

22/ Clerty mbl + gray slate

TC-28-6-6E-7

23/ Clerty beds.

24/ Green slate -

090
37

25/ Gray-green slate

40
72

26/ "

27/ Green slate, gray slate & phyllite

28/

July 1 /68
COATES

TRAVERSE SOUTHWEST OF PLEASANT

LAKE: 105-N-6

AIR PHOTOS A-12245-113

12186-198

12328-75

#1/ 36/012

Fine grained W.S. gray
to brown F.S. has greenish
tinge in places. probably about
15-20% Bi some chlorite
some bands have feldspar
grains up to 3 mm. across
F to M-G. Biotite phyllite
finely laminated TC-1-7-1&2

Greenish lustre on
many of the surfaces.
micaceous sheen

N 3 330

#2 Fine grained B. Qtzite   34° 01 328   36 053

#3 Phyllitic Bi qtzite   34 030

#4 Phyllite - granular   30 015
cs before. strong lineation
microcorrugations   28° c 309

#5 Microcross quartzite some phyllite, phyllite contains beds of red qtzite up to 1" thick   TC-1-7-12

18° c 320   25 030

#6/ Gray Bi qtzite — 30 / 015; 20 ← C 329

#7 Biotite qtzite — 5° ← S 335; 000, 11

many boulders
of buff, blue
qtz-eye quartzite in the
holes along hillside (see 15)

TC-1-7-13, 14, 15

#8 320° micaceous qtzite
40 and m.g. buff
330 qtzite TC-1-7-16

#9 white micaceous — 32 / 040
qtzite interbedded with
phyllite and Biotite qtzite
5% small feldspar grains

#10 Interbedded black slate [9] and feldspathic qtzite beds of slate about 4" wide layers of qtzite ~ 6" thick

18/1030

#11/ Feldspathic quartzite as to cgl. as in the Mt Beak area

#12 Blue quartzose feldspathic intra-formational cgl. in the quartzite 1a (foot of peak)

#13 Phyllitic slate 08/042

Dark gray to black N 8° E 32° SE

#14 Quartzite feldspathic .15 075

M.q. granitic sills

1' & 2 ft wide

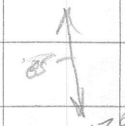
see TC-1-721

#15 Buff Brown Qtzyte .14/012

Short Traverse along Discovery creek NE Salvas Area. CORTES ARTEAGA

Schistose slaty gneiss

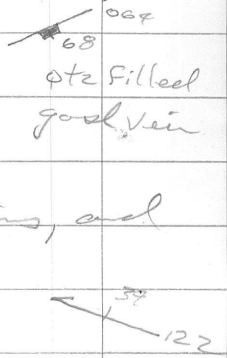
Coarsely bedded quartzite



Greenish gneiss (chloritic)

AIR Photo A-12346 378 # Coals 19/7/68

Outcrop in the vicinity of the waterfall consists of black argillite cut by many qtz-veins, and black slates.



Many of the qtz veins are intruded by pegmatite into the slates and bear moderate amounts of granite and traces of pyrrhotite and chalcopyrite. Samples.

19-7-68 - 1, 2, 3, 4, 5, 6, 7

8 & 9 are samples of country rock

COATES

29/7/68

Reece - Spot Traverse
Coates & Hamner.

Topo Sheet
Lansing
105-N-7

Air Photo A42346-363

#1 Interbedded Gray chert
& and black argillite
small closely spaced wrinkles
of qtz. (folded) See page #1
bases of argillite boudinaged
in chert. (Unit 3a)

40 → 120

060
50

& Sheared and sheared
chert (gray) #5
& green slate & chert
#6

080
22

Cherty textured
gray-green slates #7

080
18

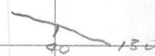
COATES

Recce Spot Traverse
Between Hess R. & Fido Creek
AIR PHOTO A12344-337 29/7/68

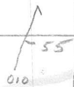
Site 2 105-N-8

2/

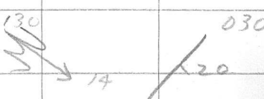
a/ slaty black argillite
small rubbly O.C.



b/ Same. #2
sulphurous encrustations

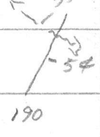


c/ Same.
folded graphitic argillite



d/ Argillite with Bx'ic zones: intra F

e/



#7
Tray slate