

April, 1991

29 million Tonnes

0.9% Cu

0.03 oz Au

- hosted Brooklyn
Sharpstone

- 3 stages of
skarnification

1)

2) ep chl

3) garnet hem

Stemwinder Limestone

Angular clasts

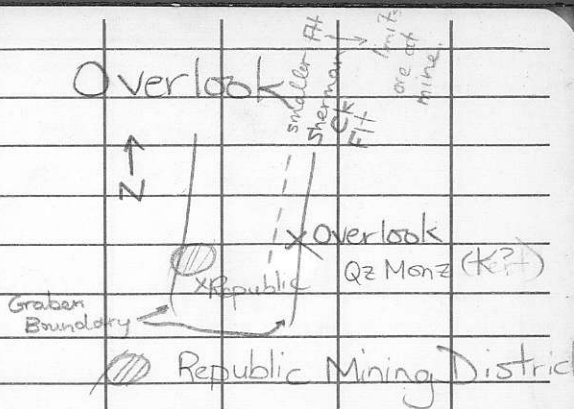
Quite variable in size

up to ~20cm.

825604

1991 Field Notes

Athelstan-Jackpot



Tertiary Volc.

E. edge graben, Permian Seds, some
assoc. volcanics

seds: - siltites, gztites
- tightly folded

rhyodacite dykes

Permian Imst (base of
deposit)

low \angle flt zn cutting
seds + Imst

tensional + compressional
textures in veins

mineraliz

most tons, lower grades -
in Perm sed + thrusts

(vns-sheet)

better grade, increase
vning near Imst (become more
sx rich - assoc cpy, aspy, w Au)

4 zones:

- 1) Qz sheeted stck wtk
mt + mssx \rightarrow replacement
bodies
- 2) Smallest
2nd lowest grade
0.12
Sheeted qz vns, mssx,
sometimes massive mt
- 3) Mssx or massive
mt
0.16
- 4) 45% of tons, 55% of oz
1/4 oz avg

predom. mt.

mylonite w qz vn sheeting

avg 50-60' thick

500-600' strike
250-300' along dip

5 oz assays at interface → ?

drilled 100' centres

bulk mining - in zone 4

Today's Tour: FW 4A

lmst

Flt

mssv mt

- no skarnification

- banded Fe formation?

probably more replacement



bleached mylonite

(scatterck.)

dyke-unmineralized
clastics

sharpstone cong

(Scattercreek)
dykes - rhyodacite
- in place along
thrust, contemporaneous,
hydrothermal fluids
- several different
ages

Scattercreek 2
oldest

Scattercreek 1
younger (xenoliths of
Scatter. 2 in it); chloritic
alt (wk)

thrusts - late Cret, early
Tertiary

felsic tuff - protolith for
mylonites

discovered → mag
anomaly
(Key W., Key E. - original
anomalies - stronger, the

overlook anomaly much weaker)

Overlook 1600-1800 tons/day
Kettle 500 tons/day

Mill - 1900 tons/day

Overlook Au: 0.17-0.18 oz/ton
Kettle Au: 0.21 oz/ton
⇒ 1.5 oz/ton Ag

Overlook → Reserves: 2.9 million tons
at 0.14 Au

Carbon + Pulp - Mill
Circuit

high 80's - recovery

Tailings 0.02 Au

Costs Mining \$15/tons

April 28, 1991

(666)

Sunny, few high clouds; chilly this morning.

left house ~ 8:00 am,
filled trucks up, arrived
on prop ~ 8:45, parked
trucks at 'triple junction' at
~ 0+75W, 1+25N

looked, with Cam, at
listwanites, gabbro,
serpentinite, pyroxenite
(xenolith in gabbro)

Grabbed hand samples, except
for listwanite.

Plan:

Drive "main rd", map rxs,
see if agree with what is already
mapped; next check out
access + rd geology of
remainder of unmapped grid;
next, try + determine andesite/
listwanite (or serp.) contact \Rightarrow
thrust \Rightarrow to determine drill
targets.

meet at house ~ 5:00 pm

Cam off to Rainbow for
day to walk lines that are to
be IP'd. Left AJ ~ 9:45 am.

⇒ 2+30E, 0+30N ←

H5001

o/c.

Weathered Surface: Brown
rusty appearance

Fresh Surface: Mottled
Whitish, pale greenish, black specks and
brownish pink in colour

Fg-mg
Altered

Listwanite

Not magnetic

Pinkish Colour: Fe Carb

(doesn't effervesce, but wouldn't expect
it to, easily)

Trace green specks → fuchsite
→ causing greenish colouring.

Black specks - biotite or sx?

(No hand lens - check later)

LISTWANITE

⇒ 2+35E | 0+25N ⇐

HS002

o/c may be slightly displaced

Weathered Surface same as

HS001

Fresh Surface - similar to

HS001 except less, if any green tint overall, however, ~1cm x 0.5cm

bleb of green material → massive,

fg fichtsite. As well, several fsp^{calc} xtals, 0.5cm in length (soft)

Few blebs carbonate

LISTWANITE

Breaked for lunch at

noon.

⇒ 0+04N 2+68E ⇐

BCS 15251

Fault? 300/020 N

F1 280/80 S

208/45 E

Foliation different on either side - looks like frac, 20.5cm in width.



o/c - Brown, weathered, and foliated. Fresh surface similar to HS001 + HS002. Sample to be geochemed

⇒ 2+82E

1+00S ⇐

BCS15252

Sheared Serp?

highly foliated / fractured

max 0.5m width

appears to be ^(Fe)carb alt -

however little to no effervescence

o/c weathered surface is

brownish / rusty in colour

Fresher surface: mottled greenish;

dark green, yellow ^{pinkish} brown.

⇒ 2+84E

0+96S ⇐

BCS15253

Weathered surface: brown / rusty
coloured ⇒ Fe carb.

Fresh surface - grey, with
pods of green Flecks (serpentine)

f.g.

Very magnetic

no visible sx

⇒ BLO + 00N, ~3 + 00E ←

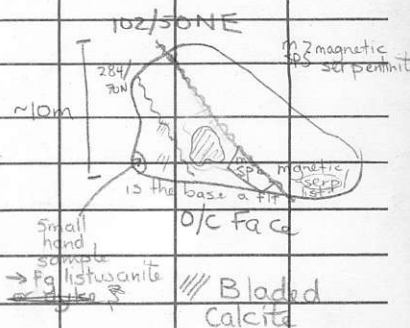
indications of epithermal activity → bladed calcite xtals

o/c weathered surface is brown/rusty coloured

float, off wall? - banded vein

Fault ~ 102/50NE
(Slicks on surface)

Reading from distance as against magnetic serpentinite.



04/29/91

2nd Fault 284/70N
(Left)

April 29, 1991 (666)

Phoned Gail at 8:00, →

things to get Mary + John to bring up

Phoned NCI ~8:25

left house ~8:30am

9 - 9:45 Back Rd elsewhere

looking for
Andesite

⇒ 7+58E 3+17N ←

BCS15254

Weathered Surface - is rusty,
most areas, with zones of chalky
white

Fresh surface - Grey to Black
to Grey-Brown in colour

Very Fine grained

1 - 2% po

Hand Samples

Weak Carbonate

CHERT (or silicified ands ???)

Gut feeling

⇒ 7+56E | 3+38N ←

BCS15255

Weathered Surface - Lichen

covered, occasionally rusty

Fresh surface - grey

Fine grained

2-5% Po

some siliceous blebs

rusty fractures

rx very hard, similar to

sample BCS15254 except not

as fine grained or siliceous

SILICIFIED ANDESITE? or
→ CHERT? ~~but~~ but feeling

⇒ 7+33E | 2+50N ←

BCS15256

Weathered surface - lichen covered,

some serpentine patches of green.

Fresh surface - grey to green

Fg - vfg

magnetic

Fracture planes ~

034/80E 134/80

⇒ 7+75E

2+29N

←

BCS15257

Weath Surface - is mottled
rusty, blackish-purple colour
with rough 'pitted' surface

Fresh surface - yellowish
brassy colour (py) with
occasional white blebs (qz)

MSSX

- wkly - mod magnetic

→ mainly py / some po; mt?

aspy?

↘ weathering →
large % of cpy.

⇒ 7+72E

2+31N

←

BCS15258

Weath Surface - dark
grey with white chalky
carbonate

Fresh Surface - Grey, Grey-Brown
with green areas

Rx appears finely banded?

Silicified (very hard) / Cherty

Fg

inlets of quartz

tr vnlt of po

rusty fractures

? CHERT or (SIL ?)

7+65E, 2+80N

o/c

Weath Surface: lichen covered,
some rusty patchesFresh surface: Black, grey + grey
brown mottled

Fg

Clasts (lighter grey brown) in Fg
black - dk gry matrix (angular)

Not calcareous

SLST BX

(such a rx type.)

⇒ 7+82E, 2+50N ⇐
o/c

Weath Surface - Pinkish White,
Rusty

Fresh Surface - Green (light), +
pinkish white with black specks

LISTWANITE
(Fg-mg)

* ⇒ ~0+02S, 3+10E ⇐ *

LCP: Wolfhard Claim

Locator: Ed Carson, for
self

Date Commenced 04/29/91
7:00am

Date Finished 04/29/91
12:00pm

5S, 4E

⇒ 2+94E , 1+25N ←

Weathered Surface - Rusty,
yellowish, white and dark brown/rusty
patches - strongly fractured

Fresh Surface - grey w black
specks

f.g.

Took Hand Sample
seeds?

Joints

025/90

320/60S

324/38NE

254/64N

Fault (Zn) 316/62W



April 30, 1991

Sunshine

By myself again - Athelstan
Jackpot

Beginning day at 4+00E,
4+75N - finishing rd geology.


conclusion - fault trends
 $\sim 190^\circ$




\Rightarrow Area of 4+00E, 4+75N \Leftarrow


Foliated magnetic serp.


(Serp shear) Fault 270/50N 

Slicks 50 \rightarrow 020 

Fault 010/90 

w/ slicks
(orientation?)

Fault/contact 048/40N 

Fault? 245/90 

⇒ 3+95E , 4+46N ←

BCS15260


Weath Surface - Grey

Fresh Surface - Grey-green,
mottled with whitish patches

fg - mg

massive, but jointed

DYKE - ESP PORPH

Dominant Joint 260/685  68

⇒ 4+00E , 4+12N ←

Contact / Shear Zn check

~25 cm wide

highly sheared ✓

Fault 270/40N 40

⇒ 2+48E 3+29N ←

BCS15261

Weath Surface - Grey + lichen Covered

Fresh Surface - Grey-green with

Rust covered fractures

fg

not magnetic

HAND LENS
NEED

appears crystalline

E.G. INTRUSIVE? /

wk chlorite alt.

FLOW

⇒ 1+78E, 3+40N ⇐

Weath Surface: Grey w
lichens and few rusty patches

Fresh Surface - Grey

Fg

Magnetic - Weak - Mod.

No carbonate (does not effervesce)

ANDs & (dolomite?)

(possibly Fg intrusive)

⇒ 2+00E 3+25N ⇐

o/c

Weath Surface - Grey to brown
with Lichen

Fresh Surface - Grey, some
areas with greenish hue + carbonate
(listwanite)

magnetic

⇒ 0+88E, 5+80N ←

BCS15262

Weath Surface is grey brown +
some lichens

Fresh Surface is grey, some
greenish grey areas (serpentine)

F.g.

strongly magnetic

MAGNETIC SERP

⇒ 4+62E 6+18N ←

BCS15263

Weath Surface - Brownish
green to brownish

Fresh Surface - Grey with green
tint

Fg

magnetic

Joint ~280/52S

52

MAGNETIC SERPENTINITE

Finished mapping roads
back to house ~4:50pm

May 1, 1991

up early
5:30

Weather - Sunshine

Companion - Cam

1st - Grand Forks

→ Cam to use fax

→ Overwaiter -

Grocery Shopping

TO SOUTH GRID:

- Ingram Ck Rd

(on Right off Highway, past
"big corner" out of Midway,
before bridge)

- go for 4.8 km, junction,
take rd to RIGHT

- 1.6 km, junction, take
rd to RIGHT

- stay on 'main rd', at 1 km,
small rd to LEFT

- 1.7 km cattleguard,
go RIGHT

- 2.5 km, junction, to left in
pink flagging (12E) go RIGHT, 2.9 km

to landing, the take 'Cam's Rd'
(orange flagging)
N. Grid Main Rd
at km 7, go left over ck
lower main rd as go
around ck.
another small
rd to right - don't
take it, stay on
main rd

Mid-Late Afternoon:

looked at Pav (andesite)
at showing on/near Phoenix
rd, then to A-J to
show Cam MSSX +
shear zone

For the Geophys. Folks:

ID Survey Lines

South Grid (Rain 91 Grid)

L12E - 28E, 2200N to 2900N
(700m ea)

lines are 200m spacing
(ie 12E, 14E)

n = 1..5

Tam 91 Grid (N. Rainbow)

s. section

Lines 05-45 BLO+00 to 6+00E

65-85 BLO+00 to 8+00E

n = 1.8

n. section

Lines 12N-18N BLO+00 to 9+00E

n = 1.8

Lines 24N-28N BLO+00 to 9+00E

n = 1.5

Burt

~~Ken~~ Muir

→ Scott Geophysics.

May 2, 1991

Weather - Sunshine

Companions - Mary
McDowell, John James

3+15N

A+BOE



Fault (?)

286/65 N

Surface looks similar
to listwanite

Rx Surface is Fe
cab w darker clasts within
↓
wkly magnetic.

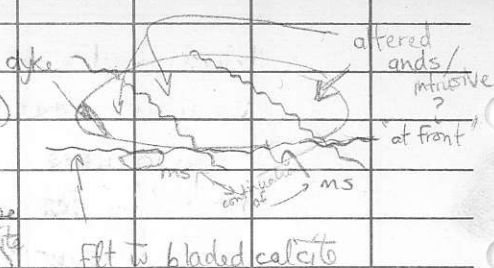
Fault (Base of o/c) 290/HON

✓h(Bladed
Calcit)

018/68W + Fault
Surface ?

(wk fuchsite)

↓
can
thought
might be
listwanite
from Hs)



Mapping

⇒ 3+55E, 2+25N ⇐

BCS15264

Weath Surface - Pinkish,
Lichen covered

Fresh Surface - Pinkish
Brown w/ Black 'zns'
no effervescence
not magnetic
K-alt?

⇒ 4+15E

0+88N ⇐

BCS15265

Weath Surface - Brownish,
with green + blue (malachite, azurite)

Fresh surface - Whitish w
black 'wiggly lines' (vnlts?)

3-5% cpy

fr - 1% ga

host similar to sample

64 but not pink

SE

125-275 N

Hill up to N

May 3, 1991

For Mary:

E end of Grid

+

- +L3 + 0DE 225N - 5+75N

- +L4 + 0DE 500N - 625N

(if other part of grid done).

Bottom
rd + hwy

970m

	E	N	elev (m)	
	5+00	⁵⁺⁵⁰ 5+00	1111	
	5+00	⁵⁺²⁵ 4+75	1113	
	"	⁵⁺⁰⁰ 4+50	1115	
	"	⁷ 4+25	1122	
	"	4+25	1130	
	"	4+00	1130	
	"	3+75	1132	
	"	3+50	1135	
	"	3+25	1136	
	4+50E	3+25	1145	
	4	3+50	1145	
	4+00E	3+25	1150	
	"	4+25	1152	
	"	4+00	1149	
	4	3+75	1150	
	3+50	2+75	1151	
	[3+50	2+50	1150]
	3+00	1+75	1151	
	"	1+25	1155	
	325	BL 00	1150	
	3+00	0+50S	1153	
	"	0+75S	1150	
	2+50	1+50S	1150	
	0+50W	1+75S	1221	

	E	N	elev(m)
	0+00	1+25S	1222
	0+25E	BL000	1227
	40+00	0+50	1233
Rd's "Triple Junction"			1255
	1+00W	2+50S	1195
	3+80E	4+10	1169
	2+50	3+25	1173
	2+00	3+50	1192
	2+00	5+25	1208
	1+50	4+70	1221
	3+50	3+50	1166

11:00 at rd+hwy
altimeter - 973m

Into GF → bank machine
Groceries
Hardware Store

(arrived ~12:20)
Back to house - office work

May 7 (Tues)

6:30 - 9

Grand Forks

Curling

Clubs

→ Forestry
Meeting

May 4, 1991

to Mary

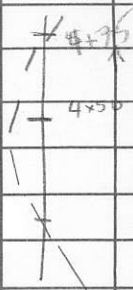
060/50N

3+80E 4+10N

Magnetic Serpentine

above "shear ϵ_h ". This appears
to be a continuation of the zone
below. Trend foliation/fault 060/50N

3+50E 4+50N



0+50E 1+75-2+00S

0+75E 1+50S

Pyroxenite ? -HS

d/c

Weath Surface - Dark Grey

Fresh Surface - Dark Grey

1+00E , 0+50S end of 2nd rd.

7+00E 4+50N

May 5 - Office - mapped 3
lines to Mary midday.

May 6, 1991

Weather - Clouds, Rain Afternoon
occasional thunder

Companion: Mary

Proposed Drill Hole
Locations:

1 - 0+00W
1+25S

(on rd - main to triple junction)

2 - 2+10E
0+05N

(on side rd from rd to pits,
near cabin, above o/c w calcite
xtals)

3 - 0+40W
0+75S

(above pits on rd to triple
junction, except get on to middle
rd). -will have to build rd -

(H)

0+90E

0+75S

on small side rd
between Athelstan + Jackpot.

Sampling:

- 1W 5N (2 samples?)

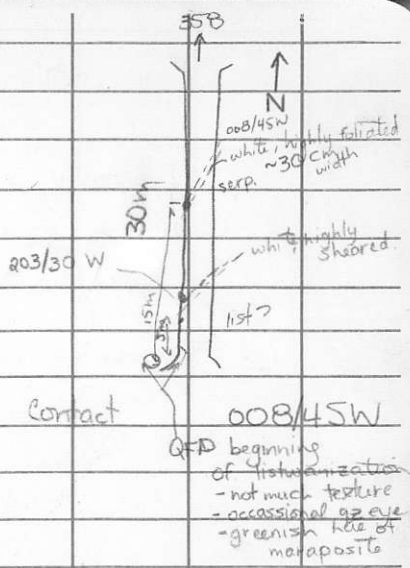
dior/gabbro

- 4W 6N (1 sample)

on rd

- BL 0+50S 1W - 0+50E

List - 2 samples



⇒ 1+60S 0+10E ⇐

BCS15230

Weather Surface is Rusty

Brown with up to 1cm weathering (rusty) rind

Fresh Surface is greenish grey mottled

Qz eyes - ~1% (-tr)

Does not effervesce; not magnetic

3% py

Qz stringers ~ 2%

→

P1

DD+87-02

at ~ same location

Trench Behind, and
in front of

→

P3

0+50W 0+50S

Potential Pad.

looks like old pad

- can build rd straight up

hill from ~0+00W, 0+75S

OR back rd (old) but
much longer. ^{last bit}

Bcs 13995 ~ 1+50W

0+25S

→

P2

210E 005N

Can get near on

preexisting rd (200E, ~050S)

May 18, 1991

Weather - Clouds (when will train - probably any time now)

Companion - Mary McDowell

Today, Mary is mapping, I'm keeping the notes

⇒ 4+00W, 4+82N ⇐

Jts: (strong) 128/82

(strong) 031/83

(wk jt) 226/22

⇒ 450W, 5-12N ⇐

Strong Jt 198/62
(determines face of o/c)

104/88

⇒ 445W, 4+98N ⇐

Fault Plane 137/73 (145/74)

Slicks 77 → 230
(*71 → 224)

⇒ 444W, 4+98N ⇐

Jt 220/74

Jt 262/25

3+45W, 4+26N

Wk Foliation 172/90

✓ $\Rightarrow 3+75W, \sim 5+00N \leftarrow$

Jt 052/88

Jt 147/90

$\Rightarrow 0+98W, 4+00N \leftarrow$

Jt 086/86

✓ $\Rightarrow 1+52E, 1+74N \leftarrow$ Pyroxenite

Jt 199/68

✓ $\Rightarrow 0+00E, 0+90S \leftarrow$

Jt 084/66

Jt 170/48

Fol? 178/70

✓ $0+50S, 2+45W$

Jt 332/74

Jt 017/85

Jt 053/80