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Prospector Assistance Program

1989

May 16, 1989

partly sunny / rain / snow

Objective: check out Au showing reported in "Au Occurrences in YT" NAP report.

105D/10 6 miles E of Cowley L.K.

(A) rose qtz w/ magnetite pyrite in a green basalt float

(B) granite outcrop thru out - no sulphides

(C) float - granite - shale etc no sulphides

(D) shale outcrop - S-E/W Dip 80° N with very rust on all joints - also contact with equigranular green rx / aphanitic purple

(E) shale w/ rust - greenish (light) "tuff" literally 1000's of crocuses - at least 1/ft² float of many types

(F) at survey marker - shale w/ parallel veins of milky quartz - 2-5 mm no metals

(G) 3' quartz vein Strk - N-S Dip E 60° in shale - quartz is milky white - like limestone almost with ~~no~~ peppering of "dirty" - not quite rust in color - inclusions - some rust in qtz in places sample D-10-1 - has some glass inclusions (calcite)

Topo map of features at <<4292>> & Au don't seem quite right

(H) 100's ft of rock - mostly shales - E-W
strike D - 45° to S - toward bottom
black equigranular - plutonic rx.
"frosting" of qtz in layers within
shale, across face 1st appears to
be sulfide vein - not - good R[illegible]
outcrop on E-N side of crocus mtn
- some shale w/ lots of rust on all breaks
(I) again rust stained rock - not shale
but a ~~[illegible]~~ flakey "purple" rx
w/ metal - very slightly magnetic
pyrite ^(may) or argeno-pyrette ~ 2-5% of rx
other outcrp rx is equi dim black/green
plutonic - more sheet
D-10-2 - purple rx w/ sulphide
D-10-3 - breccia - 6" strike E-W
dip 60° N
Dead moose - out at 4k hwy - follow
old - untagged but [illegible] [illegible]
directly south - snow [illegible]
Dark

May 24 - 25

Obj. try + delineate size of Cu/Au skarn near Fry Pan creek

trip in much slower than w/ ice on Beaver New land claim block has covered much area along trail in - must make certain this doesn't affect 'commercial access' to claims. 11/30 claims on gold (cash) creek w/ Cu showing now gone - not updated on last summers map - too bad, now Crown Land

Cannot locate skarn - in key trees / fog when first located Fry last. DAMN

- Some metals in rx zoning search - granites, and 'greenstone' (andesite? Basalt?) with later predominate - very little to no limestone. With I brough map - shows skarn (?) as a low grade high - within ± 1½ x 1½ km area - how in hell did found it the first time is beyond me. Camp up wintered well - one recent bear kill (caribou 'cow') at top of gold creek where Fry creek trail hits creek - luckily no bear - very narrow (glacier ice still) canyon - slow level - spotty at 4,800' on E W + S slopes at 5,500 mostly snow except steep south facing slopes. Fry Pan

creek flood (today) into lake - only two
diverg yr - should make environmental
problems for placer minimal.

May 26 - Brothers birthday

again look for skarn & other evidence
that might indicate strike of calcs/intrusion
in area

Directly east of 'two little' lake at 'A'
rx on horse trail - limestone 1'x2' & mag.
black aphanitic rx - directly below gorge
on Plum ck ridge

Magnetic granitic float - lots magnetite ~3700 232°/8
from this point head southerly to try to
locate "creek" I panned after discovering
skarn - then backtract - no luck - Do
systematic search of hill above pond (e)
500 m x 50 meters each swath - 2-3
other mag granite float - no outcrops
Rx - 'tuff (black) purple green basalt -
andesite - all float - some granite -
most all contained large x-tals of
magnetite. May have to run
magnetometer over area to find this
damn thing.

May 27 - concentrate between gorge &
yesterdays traverse - same approach
- walk lots - try to cover everything

outcrop + ASJ. boulders over 100' x 150'
I believe - not certain of anything but
sore feet now. Today will be the
last.
magnetite granite below 4th bump - float
~3500' 300° to top of large orange "green"
on 115K2 212° to middle bump (Ian map)
to flaky - almost schist like magnetite
buy, grey sugary rx. - magnetite throughout
- lots of magnetite boulders (several ft dia)
sticking out of a soil slump 89-F15-1. Flagged
- 50 m above these rx more rx -
black to gray aphanitic to fine grain - ~~one~~
some magnetite some, like in appearance not -
all float 1' x 2" size. in one piece of
fractured tan qtz w minor silver metal.
(can see fry pan creek delta directly down
hill (~250°) Continue uphill - ? 200' elev ?
(need altimeter) minor malachite in
mag sugary - flaky text rx - some metal
(mag) x-tals as well - flagged.
(Amygdaloidal basalt w/ $CaCO_3$ filled vacuoles
- green/purple chunk- breccia like - non mag.
- just south 20m of minor malachite)
Agent at ~3500' 260° ~~from~~ to point (peninsula
into too little Lake) First SKMN Rx
mag x-tals, garnet, qtz - float 2' x 1' x 2'

Same rx as in outcrop found last Aug - getting close - 1 tape flagged.

VOILA - traced float up

100 yds - the OUTCROP

(sigh of relief) Very dynamite an outcrop - rx not glacial at all.

flagged - missed 200-300 m yesterday. Outcrop not all "in place" - gross strike of 120° - follows strike southerly ~ 2-300 m limestone float - big xtals - white to gray - all other rx mag. - basalt? at ravine + up ravine to cliffs float 'green stone' - mag w/ fine-lined chalcopyrite pyrite etc. veins in place - bedrx black aphanitic - arg. like? stockwork 3± 2mm veins. 89-F15-2 4/50 in ravine strain float - well rooted - no pyrite - mag xtals garnet epidote, also minor malachite on bedrock - breccia float (malachite 'stain' at cliff - just below trail line) "All" rx mag water to some degree - green stone w/ pink-"garnet color" intrusions. These I believe connected to skarn

Samples to consult geol. with x-l

also some well rnded limestone float, if skarn where is limestone ?

May 28 obj - set up grid, take soil samples - try to determine strike. Take tools up mtn. check w/ local outfitter to see if I can use his track to fly in potential backer.

X Y coordinate grid set up ~~at~~ 30 m X-axis below outcrop @ 120°. Soil samples taken from (-60,0) to (60,0) @ 10 m intervals
Outcrop 12' high X 65' long
permission to use track etc to fly in potn backer / buyer
Some samples taken just into permafrost zone - / organic layer - maybe worthless
more samples of rx types w/in outcrop for skarn - malachite, mag/garnet, pyrite/cp
May 29 After looking at geol map it appears possible that skarn "line up with "argillite etc / volcanic contact" about 1 mile + southerly walk @ 130° (not 120 as though yesterday) from skarn to "hump with creek" then investigate it for contact.
260 m SE skarn - 1st gully rx

are the standard grey basalt - magnetic
@ 625 m SE. compass seems to
be "dipping into mtn - steep ~40°
(optical illusion on steep incline)
rx are grey volcanics non
magnetic - Fe stains on joints
little float in between
pass over ravine w/ water
at ravine - below 130° line
grey flecky - fine green - volcanic w/
~~black~~ inclusions - "biotite" hornblende?
Strike 70° "northerly" dip 85°
S. seal sample #3 below where H_2O
gave undergd. Rx S of this
area less magnetic - eg granites -
granite float below is magnetic.
May 30, collect samples for
assay, take pictures of site +
possible landing site on TL Lake
Samples
9F153 - malachite + hvy Fe matrix · xtalline
9F154 · pyrite / chalcopyrite
9F155 - matrix · xtaline garnet Fe silicate etc
9F156 chalcopyrite / pyrite 20%
Fe / ilmenite 50%
malachite 5%
matrix 25%

Pack majority of samples etc out along beaver - some 'sulfides' float but comes from new R-block near mouth of Tchawsohlin.
Manage to get by bear hill w/o incident (fired one shot) 7-8' grizzly - headed down gold & up beaver - yearling cub in area also.

June 18 Sunny
objective check out anomalous gold copper silver etc on G-1 near south end Kluane LK
@ a) sample 9G1.1 - mag. hvy rx w/ lots of cleavage - very dirty, difficult to tell minerals.
Main rx granite (granodiorite on geolog map) in lower reaches greenstone float, $CaCO_3$ float, rx w/ 1" qtz veins,
@ b granite porphyry w/ 1"+ feldspar (K) phenocrysts. also S-260° biotite schist granite contact, verticle dip
beautiful contact - some granite in area almost red. On contact within schist tan sugary qtz lenses - biotite not pushed aside by intrusions

granite below and near "tree line" appears to strike N-S and Dip 80° to West. Nice mix of outcrop / brush on west side of hills.

P.C sample of soil slump - sed. sample 9612. Slump exposes westerly strike biotite schist - most depressions on hill are these steeply dipping schists - some 50m+ wide all with yellow to reddish quartz "globs" associated with them - especially near granodiorite intrusions - 90+% of granite is phorphyry - phenocrysts of feldspar (white K-spar) in places the K-spar phenocrysts form dikes w/in the phorphyry - from an inch to a foot + wide - run in all directions - lots of hornblend in some rx No outcrop found but granite / schist. Granitic rx must have intruded schist? Off outcrops brush very thick - alot high. Some recent grizzly digging, robins rain + wind + bugs

June 19 - collect 'stm' samples in Hayden Lk basin.

on Hayden creek at d - gold in bank moss + in sand in bank

take concentrate sample 9G13
- at pipeline cut Strm Sed Sample 9G14
gold in all more - very fine - no
showed to attempt bedrx + plastic pan.
at e strm sed sample 9G15 - gold
in more at same location
f. big hornblende / feldspar xtls in rx
grading into a "hornblendite" w/
minute inclusions of qtz, green rx etc
a black more of xtal faces.
Most float feldspar phorphyry
white black sand in pans (but some)
also red garnet; sun - rain on way
boys down a bit
bald eagle nest w/ one young - 4 other nests -
orange lichen patches (large) under each nest -
eagles seem to prefer south facing cliffs -
can use orange lichen (first by birds?) to identify
possible nesting sites at distance.
Rx same as other side of creek (4910' pk)
but Strike E/W. The phenocryst k-spar 70°
"veins" cross cut - (Strk - N-S) dip steeply to West
g) gold - in gravel - one speck + more - 3 specks.
6" grizzly track / moose
Strm sed sample #7 (9G17) at sharp bend in creek
no sample possible (muck) for drainage of
rest there 1K. four ounces of float

again mostly ~~grey~~ feld porphyry granitic some "sericite" (less biotite). syenite dikes w/ no dark minerals at all.
sample 8 - whole 'creek' a mud slide - many thru out whole area - god it was wet last summer. panned - no gold. bad rx biotite schist - dipp to sw but appeared NW ~~dip strike~~ NE strike?
samples 9, 10, 11 ~~12~~ taken at slumps - no H_2O off ridge now. lots of ptarmigan - mated pairs w/ young - just hatched - cute little birds - parents quite protective - go crazy w/ broken wing routine - only 2 chicks seen / pair brown w/ 'black' stripes - could touch them w/. them moving.
wonderful bouquet of flowers - forget me not, shooting star - at least 12 varieties, cariboo rake near sample ("stream") #12 - shot thru horn.
whole valley fairly level with poor drainage - makes STRM sampling difficult - not certain value of "soil slumps" samples or of gossit sample w/ good Cu Ag 10ppb Au etc as it is in a swamp - will try & reproduce results - All float - feld porphyry biotite granite (granodiorite) bugs bad - no rain but thunder lake large enough for float plane. O trees, increasable flowers

6/20 - look around Hayden Lk - get stream sed samples - hope gold in creek means something & extends to samples. Encouraging that good gov't values are on opp. side of lake

. at 13 - sample & pan a seep - no hvys.

at 14 - skarn rx - fine grn mag w/ epidote & garnet (same color - pink to purple as has shown up in all pans (including at 13) - sample 14 st

15 rusty float - 2' x 1' - almost breccia like - fair amount of 'skarn' rx between 14-15 - all float - rx 15 contains mag (little) limonite, vugs, hornblend(?) (long black/greenish xtals) - generally grey w. fine grain rx - just above very thick blue bell patch - crocuses (flower) must be incredible here in spring - tons of butterflys - yellow sulpher, swallowtails, caterpillers, cocoons, bees - & birds, & gophers (young just out) busier than downtown whole. Hopefully large skarn - #15 is somewhat like the small float #9G11 taken north 1km. - also high gov't value on other side of ridge - looks good - but no sulphides seen - Sunny - great to be alive - think this damn rx hammer is destroying my hearing though

at h - grains - biotite - ogun St. ke
westerly (260°) + near vert dips - ypea
trends to the south - ~ 20 m wide
w/ granitic contact on both sides -
(also - schist/granite contact on top of
pk between 15 + h) - no apparent
mineralization - no shown float
Can see into gut #1 sheep on the dist - 15 mile?
what a killer walk. - ought to check out
Anton Crk gold source in that area (geologically
connected to 4th July?)
Also dirty (grey) dolomite in area of 14-15,
ogun float. View can't be beat.
hungry to low for caribou here - otherwise
look like 100% caribou country.
at 16 Sample rx assn w/ schist
gtz + feldspar phenocrysts w/ mica (clear) & little
biotite, Sample is the rx w/ Mn stain
+ limonite coating w/ Mn - other rx like granite but
no biotite - rather clear mica (sericite?) -
majority of #16 feldspars w/ chunks of gtz.
continue westerly crosscutting granite/
schist gneiss contacts to divide at
Fly lake then up along out crop
on "Terry" Ridge same rx suite -
except no schist contact - though some
float no sulphides or rx

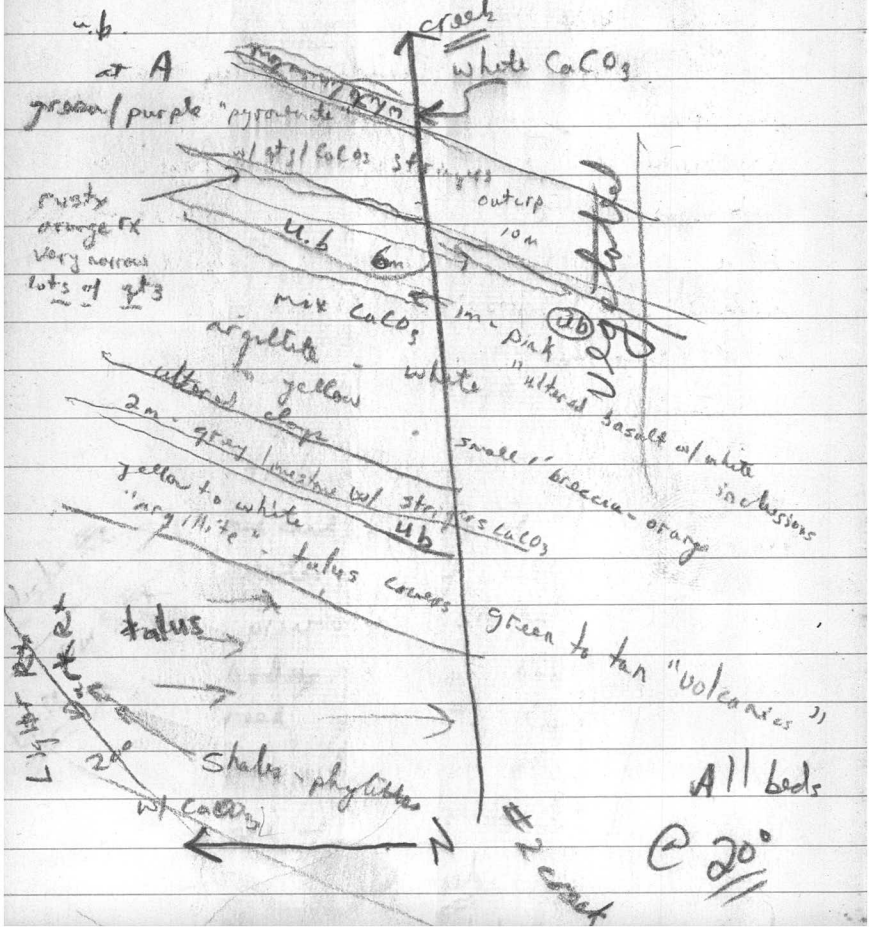
of interest. Ascend ridge to take "stream" samples around Hayden Lk.
#17 in soil slump w/ H_2O } both drainages
#18 in swamp - organics }
#19 - Hayden swamp - feldspar xtals etc on 1'++ of moss/organics - not convinced gonit geochem. results were 100% in this area - South side of Lk just swamp - no samples - moose antler drop - lots of pterm - w/ chicks 2-3,
Attempt to take sample at 1 - no H_2O 1 yr. moose in thick willow/alder sidehill keeps coming back up hill to investigate me.

6/21 - Longest day
Take 'last look' at Bock Brook - make certain c.b. are staked - samples are not orgnic.
9921 - soil sample - "alt" orange soil 1m wide x 3m high on left limit of creek across from 'gypsum channel' lots of w/ "serpentine" & pyroxenite - all magnetic to some degree.
100% beautiful day - wish I could get this job to pay.

@ A trib - #2

creek crosscut series of RX types - trying to determine if ub are off claims previously staked.

dark body runs in band across #1 creek from #2 (see map) maybe 5m wide? - ✓ out up in #2 creek to see if it is shale - greywacke or ub.



2 small - somewhat confused u/b bodies below claim - the upper one seems to be a band - ~2 m wide the lower are about 20' wide (not true width) and exposed on float across (S side) of the creek - on ~20° course - both are adjacent - in places to a gtz rich rust stained fine grn light colored rx (sample 9G22)

Several samples from wide outcrop - on N. limit of creek. Some u.b w/ very small amount of silver metal (mgg?) & chalcopyrite. u/b rich as claims - 1 Km² at head of creek + beyond, did not see metal in these.

- 8 shots -

Samples
9G23
9G24
9G25

- 2 hrs to walk out

8/22 - sunny → cloudy

look at other areas in Back creek - fault (possible) 1 mile up "Ian Creek" creek w/ u.b. (forget what I called it last yr) with mine creek pass & creek across Back creek - also in line w/ 20° - ub bed.

On creek directly across from Ian Creek (- geo chem proj last yrs) cor size mag boulders w/ little malachite stain in places (9G210). Some mirror sulphides w/ blue mag ex - float.

Take sed sample - 9G211

big country - lots of epidote, mag. in creek (all) also limestone - wondering about skarn possibilities here

Next creek up from Ian - right limit - right limit almost entirely phyllite at 1/ contact with purple/green volcanics - phyllite metamorphosed several clay layers - one pink 1" thick w/ 1" black layers separating decomposed white clay w/ qtz + green (malachite or chlorite) 9" + then more met phyllite + several 2" clay layers. Volcanic 50' in X-section above them - again clay layers

without green - a white w/ rhyolite? + a yellow ~~rock~~ area w/ a yellow qtz - these bands are vertical ~~and~~ as are all major beds in area + are several feet wide (#14 where twisted + small - ~~contact~~ metamorphic ?) yellow + white clay - sample 9G212

Some metawoodplozed volcanics w/ sulphides + mag (chalcopyrite etc) sample 9G1213. Some rx almost schist like with fibers - 1" to 5 mm wide - asbestos like.

up creek 200 yds orange qtz (sample #2 yesterday) some w/ little malachite staining - from volcanics down used to this bed rx with very peacock ~~of~~ coating - ~~to~~ grading into gray - seems to be manganese - not bornite or anything to excite. Can't find outcrop w/ sulphides. Left limit of gossan above "orange" layer (#2) is green tuff like rx ~~go~~ + covers large area - all cliff

food - need to eat more calories

then up creek - left limit bucks brook alt to top -

to top - 13 sheep - schist w/ malachite float + outcrop - w/o any mineral - spectacular view of Dead Boy / Lake - millions of forget-me-nots

6/23 Obj compare Quill creek / Welgreen w/ ultramafic situation on back - eg where is "sulfide" relative to ultramafic? what do sulfides look like? Examine w/ owners permission one man placer operation right at canyon mouth on Quill - nice operation - old fellow from Switzerland - real big bucket line / loader - 1/2 deposit - some larger rx - not like Fry pan / Bowers country area worked previously - left ground under road - will try small steep gulley to creek on left limit in future. - nice, neat operation - others below canyon also claims above. @ Welgreen no-one home - 'keep out' signs but incredible massive sulfides - an entire "dump" some 2' to 3' rx all silvery / iridescent massive sulfides - supposedly settled out of the ultramafic bodies squeezed

from mantle - incredible where cat has gone on mtn - why wasn't this found pre 1950's? - Look has nothing like this - samples from dump

6/24 - obj Dort Boulder cr - trib of X-mas creek for placer. Drains mtn w/ sulfide showing. Rx of all type (float) float the is all mass - also in some gravels. Dirt Cabin where rd X's creek - good access. an amount of old equip - truck near treeline - needs wheel - good stone, sluice box (in pick up box etc). One disc. claim on map. some clearing (for assessment or is there some reason for clearing on left limit (A). Apparently high H_2O table as all track hoe pits flooded - didn't go to (6'-8') deep - H_2O trouble. Major Grizzly corridor it seems. rd not bad - good access to Hwy (on old hwy - this could be a good "tourist fun panning operation - recreational mining site" will return w/ shovel etc for more thorough exam for coarse Au - would be good for dredge etc - if coarse Au ⇒ tourism/recreation - due to treeline in areas / some gravels.

7-22 cloudy / rain

Toshingermon LK - fly in camp on south end of south Toshing. LK. white beach w/ large quantity 10%+ black sand - from beach apparently lots of schist - one green schist like rx w/ pyrite - in very small amounts. Area has lots of outcrop - xtal limestone band & what appears to be several 100' of horizonal layers of sed / rx (a) but may be metamorphi (schist) - directly above camp south of the $CaCO_3$ band is a land slide w/ Fe? stained rx.

Many moose tracks - all sizes wolverine tracks at beach - no recent bear - but lots of 90%+ ripe blue berrys.

Flat land between lake & 'hill' to east is apparently sand (white) w/ some black sand (concentrated at beach) plane to arrive 29th - hope for good weather, need another

all trees small - largest 6" - mtns & labrador ~~tea~~ tea understory

Some qtz float along lake shore.

other rx bands w/ very good cleavage along contact w/ other rx type - or grains w/ cleavage. would look sedimentary w/ veins of qtz at first glance.

7-23 Vout outcrops etc on ridge east of camp. ⓒ - 20' outcrop - very contorted schist - fist size masses of biotite, tan x-tal $CaCO_3$ & qtz - some green - possibly malachite stain on rx - definately not biologic. - lots of chlorite as well

stream sed sample 9G142. One large (m x m²) pink granite boulder w/ much biotite.

Fairly depressing assemblage of rx - schist - some vertical w/ recumbent folds others relatively horizontal then x-tal limestone - grey. both very sterile, though the schist ~~qtz~~ has lots of qtz stringers throughout some rust yellow color - at O. top orange $CaCO_3$ sandstone/limestone intermingled w/ schist/x-tal limestone, at E light green to black tuff (non calc) & a aphanitic limestone - some w minor limonite & pyrite x-tals □ - schist material surrounds both - nothing on contact. Massive limestone common throughout area - also schist

@F yellow 'decomposed' limestone layer underlying biotite/chlorite schist w/ stringers of qtz - in much Fe staining & manganese

@ G - Two caribou cow/calf - schist with hundreds of small 1-5 mm garnets (red) exposed on surface - several specimens taken

G-H fault off west side of ridge runs ½ of ridge to large limestone outcrop to the north (H) only schist/limestone float noted

left knee hurt - moose 10pm walks into camp 1 lake trout

at G - assoc w/ garnet schist grey submetallic metal - soft - black streak, non mag possibly w/ realgar assoc? Assoc w/ quartzite

9G143 - to be assayed

7-24 Rain recheck gold anomalous values on Kluane River Schists and limestones - w/ same "Fe staining" along Lk shore @ 144 - Stream Samples (dog) taken area had many mud slides last summer. Good amount of malachite w/ dolomite (tan to white)

Atk - #1 placer lease post Nov 88 - 2 mile - no sign of work - Calvin w/ tarp roof built - hewn 'plank' floor - bears have visited (built 86?) - tore the place to smithereens. Calvin right on old Khume River trail.

B at M - very small trickle - pan Au + black sand - follow up 'creek' + pan Au (in wood) until dry - near pass, at (N) where SS sample 142 was taken pan - Au in wood - all Au very fine 1-10 flour grains / pan (most in French creek. (B) Sample 148 + a pan concentrate [147] taken at M, a sample 149 (DH) taken at N (above 142 - confused 'creeks') Granitic rx (well rounded in this + French creek)

7/26 - follow up good geochem + drainage into Tin Cup Lk + look for conspicuous sources for high As, As was the main target for the discoveries in Champagne Arctic which map sht - though it might also have here as well - good As and fair Au 30 ppb

On ridge directly east camp @ (10) on a contour between a massive (250' on wide)

xtal limestone bed & schist (to the north) is a ± 1m qtz carbonate band - orange w/ minute traces of malachite (sample 96/1410) this qtz carbonate band lies adjacent to and along the north side of the xtal $CaCO_3$ bed -

@ [10] garnets in schist or at [F] in area of [F] diorite float & rusty schist - 30± tall sheep / lambs & ewes. sample 11 (96/1411) is a black shale / rx grades into chlorite schist immediately adjacent / with minor pyrite & minor minor azurite - but its pretty - down towards creek qtz with metals & biotite muscovite schist qtz w/ metal (pyrite?) also large numbers of garnets in schist (black to red in color) Sample 12 - some rust stains.

young bull caribou at head of creek

some granites in crk bottom - valley of rx slides

pred. schist - some black shale - strm sed samples 13 & 14. between 14 - 15 rotten bdrx schist muscovite biotite w/ qtz (as in sample 12) with metal - Sample 15 16 17 - strm sed samples (16 being on tiny cup side, 15 in crk at descended 17 crk at ascended. Limestone cliffs cut schist at 18 stained red out crop - schist bio w/ metal < 5% - rx has some purple tint, very fine grn.

sneak up on nice bull caribou laying in creek - 30' or so
what an animal the caribou, worked way
back thru - grn. schist + xtal limestone.
7/27 - Obj. try to look at hills draining
into Kluane that are responsible for
anomalous geochem values. Try to
collect sample for 'large' drainage basin
that has no outlet to Kluane river.
Cliffs at A are horizontal layers of
dark schists + xtal limestone - at
base + nose of cliff found schist w/
'chunks' ($\frac{1}{2}$") of milky vqz black matrix -
incredible that this is the only
vqz rx yet encountered on all
'white' sand - beaches are up to 20% ?
magnetite. Ridge has first concentrated
amount (lots) of bear sign - blueberries
moss berries everywhere (including valley bottoms)
Couldn't reach Fe stain as seen on
'malachite' ck - much of 'red' due to lichen
(but not all) - majority of rx schist - again
some black shale. @ 1419 - altered
mica schist - bed seem contiguous with
'orange stain "gossan" seen 7/26 (noted only in now)
just over ridge. From 1419 on, on west a
large basin w/o consistent outlet to river.

rx on + near ridgeline schist / shale much w/ minor Fe stain - no sulphide w/in - light with mineral.

Coming down Poss creek - immediate change in rx - good amount of granite (all well rounded though - greenstones, syenites - staurolite schist. At 1420 a graphite outcrop - graphite w/ qtz stringers. Most in an aphanitic black rx - almost igneous (also diorite float in creek) some w/ peacock staining assoc w/ rx and also some rust. wonderful to find actual outcrop. even graphite - dirty stuff. one green stone w/ 'massive' sulphide (pyrite + ?)

at 21 - soil sample 96/421 - decomposed red rx between layers (suppose its same) of muscovite / biotite schist w/ orange stn thru out. @ 22 - below series of waterfalls just above and continuing over to minor crk confluence (see map) light green aphanitic rx with metal flakes - bedrock layer is hvy Fe stn also chlorite 'dirt' w/ lots of rust - pyrite xtals - good hvy Fe stain. Crk too possible. cliff. at bottom stream sed sample (2) will use rather than 147 (taken at river mouth

Strm sed sample 1423 taken over 200 m± on dry out wash of large boun- again ignore rx present. In entire hill section (north of boron) limestone is much less conspicuous than west or east of Lakes

7/28 Obj: investigate along Lk (east side) north end east crops immediately south of Lk.

along Lk shore - esp @ camp white sandz (granodz?) washing into Lk - also at north end of first lake - is a large white beach - about 40% of sand is 'black sand' - magnetic sample 9614T - again rx of diff type - mostly schist family. incredible blue berries through out but little bear sign etc - no "creek" draining ridge to west. should have taken sample of "drainage below "O" (sample 10) where 'granish' Qtz Ceq (contact limestone - possibly something there? South of Lk little outcrop not seen first day out - other portion of 'hill' covered w/ moss etc. fine gold found earlier must streaming from somewhere here though - need more time - airplane out

8/1 Obj.: Continue to look at "Hyder Lk trend - eg. Ruby Range - sample 96/20 - inlet creek - at this point creek drains glacial overburden - rx of "all types in float - gowt geochem value of 1050 ppb (1pp may have been 'nugget effect' (analysis of upper most inlet ck (geochem # 8 - not encouraging ( ) but leaves middle ground unexplored. No other creek found until Cultus Creek. Rocks on Khyex hills mostly biotite schist - large areas of outcrop over entire area. qtz 'veins' associated throughout no sulphides/mag found. Cultus creek/prospector ck have had mining activity respectively - also 4th of July creek et al drain mountains to north. Very preliminary search of Cultus revealed nothing (lease Lapsed) Prospector creek has claims in good standing w/ mining camp on both creeks. Around Range 2 (South of prospector ck) variety of rx found - large granitic boulders - rusty (well rounded) grey aphanitic rx (fine

Predominant rx is biotite/sericite schist. - bedrock thru out area. - agmm w/ qtz (bull white & yellow veins - 1mm to several ft wide - no mineralization seen in assoc. w/ these)
one granitic rock common (1/10 to 1/8 ?) feldspar w/ green mineral (epidote? chlorite or something - all granites well rounded but very white - including "top ridge type
8/2 - continue invest. of cultural ck "intr" est. camp between mountain / 4th July at elevation.

Rock exposures along ridge to camp (H) schist / gneiss (diff. to say at times)
Qtz (white/yellow very common - need to get info on gold in qtz - in Aishihik area - what is host rx? Rx incredible blend - little real change for miles - some textural diff - some schist w/ " 1-5mm black balls (10-25% of rx) (like garnet in schist) - an amphibolite? (from geol. map - seems of little texture - tons of qtz
47 sheep (counted ewes, 1 small bull caribou + one sleeping fox - 20' away

all in valley w/ camp
at I talus slopes of schist have some light color, equi granular rx w/ 5% limestone scattered thru out (HCl) - almost igneous (but for limestone content - tuff?
this rx type in talus bands of 20-50'. Possible faulting everywhere - difficult to draw definite conclusion - or limestone w/ little diff in rx type.
J - extreme winds - helicopter wreckage - recent - rotor & main blades etc. incredible wind from 'John Crk'
-K red (very light) stain schist w/ 30% black marbles (5mm or so) No rust stn, mineralization inside. Most hillsides veg or talus.
8/3 Obj: continue to investigate Cultus 'intru'. Make way to high pk. for most part ultramafic schist/gneiss - w/ biotite or or "amphibolite" - all w/ qtz etc at L or light orange stn rx - grey ophiolite like @ I also a purple qtz (not anything) in areas. w/ white bull qtz

adjacent to a biotite schist qtz veins to 2' - the purple qtz is ~1" wide on contact w/ schist - rhodonite? sample 96121 @m almost igneous like rx - but believe its a fine grn biotite schist.

Rocks strike NW and dip w/ slope of mtn 45°±. entire rx slope & ridge are schist talus. Some of this qtz must have Au - ass. crks on all sides have placer gold (Gladstone directly north

6 sheep - ewes. Amazing consistency in rx - lots of lichen on all rx. Snow above 7000+ ft - fairly hazy - visibility 10'-100' down to camp (6,000') wet - to bone. Samples of all different rx types taken - no #'s as no assay value.

8/4-5-6-7-8 - Return to vehicle on Colton for winter sleeping bag. - journal left so 5 days from memory.

The area was remarkably ubiquitous being schist w/ more schist. There was often qtz veins w/in qtz schists. Given knowledge gained since July I would recommend a much closer look at this area - especially in the granite dominated areas - and creek to the north (8/8) and near rx sample #22 - a rusty schist - (8/6). This area is similar to that of the Shut-Killeavan 14 area - being an old schist intruded by granodiorite and the like (see 8/1-2). While no easily discernable outcrops were made in the higher areas (8/3 & 8/8 8/6) the situation was complicated by very dense fog & fog (covering all rxs) wet snows for several days. On 8/6 I actually became lost & though I was going to die - it was really bad weather (@ 3 - remains of a helicopter).

Many things - never to be thru

out lower area - no rock seen.
There is a fault running thru
the mouth of goldstone &
just to the north of the
high ntn covered s/s then
running into Jolly country -
There is also a mag high
off the most westerly limit
of Swanson creek - that may
be ore. w/ this fault -
again the whole area deserves a
much closer look - the area
is suitable for lodes - but not
the known back. on Swanson
trib (8/3) one place w/ float in
moss - not too encouraging but...
On Printer ark - 6 claims w/ cabin
etc being worked by 2 people from
Ont. pulling out the day I came -
not enough ore to bother - wrong
equip - had great difficulty w/
tracked vehicle on boulders in
Printer creek. Again the
Printer creek side of the ntn
has much 'non skbict' float -
aphanitic grey rx w/ disseminated
sulphide (pyrite) silver, (#21)

or schistose rx w/ sulphides / magnetite
some of these rx (8/8 "creek")
where layered "shale w/ 20% sulphides
in centimetre layers (sample - no ~~#~~
as float.

Fine grained grey rx w/ manganese stain
very rusty granodiorite (75% mafic)
w/ disseminated 'magnetite'

Hbly phyritic - fine grained mafic rx
w/ bladed striated black phenocryst
- magnetic slightly

and similar anomalous rx's -
again all these rx were
found as creek float. the
granodiorite float in boulder size
is quite common - & magnetic - between
8/8 & printer creek. Thurs
seem much more similar - schist -
above 5-5500 ft.

Apparently all creeks draining
this range (Cultus to Gladstone
contain at least some fine or
placer - this is true (from
sampling previous & this yr) on
8/8, printer, ~~[illegible]~~ John creek -
CXR (on the north west end) 4th July
etc

8/11 Obj. Investigate & look for obvious sign of ub/mineralization @ mag high imm. cont Caribou Lk - McClintock country. Investigation along same trend N of where yielded visible Au + .25% Ni w/ Asbestos Qtz/CO3 etc

@ A - Xtal CaCO3 grey to pink

rest of trip to Caribou Lk, despite walking along breaks, indirect routes etc yeild Ø outcrop - typical thermal karst topog - float of all kind - lott of glacial derivation

Soapberry crop very good, as is bear sign. loons on lks, Ø clouds some smoke - HOT - (80°?) (28?c)

@B swamp appears to be only drainage on mag high. with glacial overburden combined w/ flat topog excludes soil sampling at surface (to about 100x ft?)

Thermokarst topog between B + C - much .3m rnd float of all types. mostly volcanics @ C attempt a small pit w/ pk hammer - at 3' still small unsorted glacial material - little magnetites

No outcrop seen on mag high - though glacial material much less below 'c'

at D WNW trending outcrops of dirty, decomposed at surface, green, grey breccia

D-E float, tuff etc @ E large float m² of biotite schist w/ qtz vein. much evidence of prior stabling (lines running N/W) on trail stumbles on Black Bear battery in mud puddle

Pan all creeks - some, but little, black sand w/ surface samples

8/12 Obj - look for Ross Bork type ultra mafic / qtz / CO_3 type mineralization (or anything else) on hills adjacent to & creeks McClintock.

Between gravel pits & encounter numerous rx types over short interval & in some rx more - greenstone, tuff etc - flagging all along strike - NNW - all outcrops seem to strike this way. (superficial glacial resultant?)

many NE trending "shear zone"

@ A monzonite - magnetic grading to tuff w/ pyroxene phenocrysts.

Sample 9091 - quart carbonate angular float w/ some rusty weathering - qtz streaked w/ grey

roughly parallel grey "veins" (non metallic) all monzonite in area (outcrop above qtz CO_3 float) magnetic slightly, at B - quartzite w/ minor rust
B - D little/no outcrop - soil over float (tuff w/ $CaCO_3$ etc - volcanics) at C tube stream sed sample 9092 - excellent grind - heap base - very thick alder/willow - follow trail (how past bank found) trapper trail apparently - pan @ D - some black sand,
D - E - little outcrop - @ E start of series of NSW outcrops (to McClintock) mag mon. tuff (w/ $CaCO_3$) @ F mostly aphanitic grey - mon rx w/ minor metal - sample 9093. some Fe + Mg stn (thru out area rxs)
Very confusing assemblage of rk. Island in middle of marsh LK probably right on trend between Rose Creek + Berg (Dunnagan)
Hot - upper 80's - could believe it almost died of exposure last wk.
G - cliff + talus - a white "vein" powdery material ($CaCO_3$, limon or some other biologic origin agmt runs horizontally. NOT seen until other side

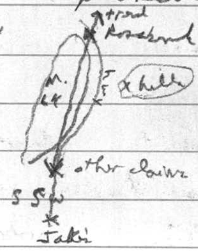
of canyon. Heard of Anglesite ($PbSO_4$) + $PbCO_3$ on Rossbank - to visit to check it will return

8/13 05: visit Rossbank property + ajoining R-Block reportedly heavy adit in ub / qt CO_3 rx, in order to better understand possibilities in adjacent areas. There seem to be 3 major NE running trends 1) LaBerge Marchlake Jake Corner 2) Fox Lk to Squarga and beyond + 3) Teslin River (with Pt placer deposits between O'Brien Bay + rocky bluff. There is also a "cross trend" connecting Johnson Xing to Jake corner - all w/ assoc. ub / qtz carb / meripsite meso thermal type rx assemblages + some corresponding mag highs (from govt. map).

Adit + rx strip on R-1. Impressive - reliable source says assay of 29 / ton from adit. very nice ub rx with associated NE trending qt carb / meripsite rx above adit - who + how did the original prosp. find this?

Rossbank in 5 sections - again serpentinite / ub + qtz / carb s south + highway - possibly

in order of high Ag rx assoc w/
rust stain ground (at highway cut) w
10% sulfide. This rx not unlike
9D93 though Rosebud, i.e. more
uniform metal content (& less).
Rd cuts to Johns Corner have some ore type
most staked - but hill closest to McClintock
(8/11) not - possible most figure its
"off trend"



nonetheless - investigate rx cuts -
incredible difference in info avail. between
rd cut & just exposed (glaciated) bdrx.
Sample 9D94 @ near 2nd gravel pit - non mag
"andesite" w/ "pyroxene" phenocrysts (just
enough knowledge to be dangerous eh)
a aphanitic dk grey rx w/ little 1mm
short black chunks in it)
5% metal in specks & veinlets - some
assoc w/ red "jasperoid." - rust coating
on rx. raspberries ripe / over ripe - lots
9D95 ~ 1km north of gravel pit
(on hwy) same rx 10% metal

9096 1 km north (via hwy) of 9095 - large outcrop cut by highway at north end - low grade metamorphic serpentine w/ veins of $CaCO_3$/qtz + schistose (dom material - so close to "R-1" type rx's (shoshonites) - ub not quite there - in area is rx similar to 9094-5 "less aphanitic" by fine xtals - serpentinized on sides (fracture joints) w/ metal - yellow pyrite & white sulphide - rx has $CaCO_3$ veins - small << 1mm + few some $CaCO_3$ veins w/ rich xtals are 6-8" wide in this rx outcrop. - very rusty veins run in line (S-NE) w/ rx acid sample 7D97 + rx sample from rusty vein - 9098 - again quite like 9093 - rusty or serpentinized edges & more "phenocrysts" (1mm)

8/14 obj continue prospect "mclintock hills" area check out old ATWD PPM claims which covers Cu showing according to geology map

Dana - had claims re staked - by to ~~have~~ purpose Ron Stack - July 15, 89 -

(A) what a showing - a mine - caved vertical shaft 25'-30' deep - lots

of malachite azurite pyrite at
in tailings - shaft (collapsed) 6'x6'
to 25-30' then water & narrower shaft to?
rx is similar (in places) to others "tuff"
w/ bits of black "phenocrysts" also
some chunks of feldspar. there out
- in tailings epidote & garnet -
a skarn old say - $CaCO_3$ component is
white (green now) dolomite - also green
volcanics. strk of rx seems SSE -
a claim block follows that direction -
to the north & west several pits
dug - qtz carbonate some w/ malachite
(azurite?) & "pyrite". Long history of staking
here. another shaft directly west 100m
maybe? this thing trends
to claims ~ E-W.? if all claims
are active 1 float qtz carb/malachite
found 8/12 maybe on this claim
block.

(B) same content as A - Strike E-W
volcanics rusty red - along outcrop
contact 100m from swamp - old excavation
no mineralization - lots of rust
(C) epidote/garnet (red brown) skarn rx - no
metal (D) old claim post More claims?
O-E series of out crops - all glaciated

(roundel) - mostly $CaCO_3$ - it seem darker xtaline rx. - nothing of interest found above ~3000' level. country more "rugged" than it looks - ravines of alder/willow. wolf/coyote den ~½ mile SW of 'sand' pit. east of 'swamp'

8/15-16 - Boulder creek

8/17 - pack in fry pan

8/18-19-20 - fry pan evaluation

22- Jump Obj - look for Au in qtz stringers thru andesite + gravels w/ garnet as found by Treadwell Mining Co 1930 as they were looking for the source of fan down Hidden creek. South of Jump ntn (P) find argillite float/outcrop, toward (H) basalt w/ veins of metal, also much bedded sed. rock rx (described several times previously) that makes up much of the 7000'+ ph cent of Jump, as float also increasing amounts of andesite, several very obvious contacts between limestone + Fe stained "rylite" all striking NW-SE

(P) Diorite w/ pyroxene phenocrysts present in outcrop - float

8/21 - Obj investigate ~~west~~ east side of Tchawsahmon creek + Hump mtn for interesting mineralization.
@ A equigranular rx small grn size - potential skarn
B orange rust on "shale" w/ malachite + trace metals (magnetite?)
C - series of rx grading from aphanitic green/white to fine grain green purple - flakey texture - This rx is often very rusty w/ 5-10% silvery metal - magnetic. Also basalts - magnetic w/ metals. Some basalts (mag) w/ veins of pyrite grading into chalcopyrite - azurite with the green white aphanitic (ryolite?). Much limestone float (rx is talus w/ some outcrop → outcrops lighter color w/ rx grading into darker rxs (andesite?), a continuous spectrum - again w/ metal flecks + veins to ± 10% (mag?). Several veins (1/2") of pyrite/mag between B - C - but only 1" long. "Possibly" Realgar (AsS) assoc w/ the rust stain in some grey aphanitic rx (tuffs - Basalts) also metals.
D - basalt - limestone - basalt contact - 50m $CaCO_3$ band S-290° dip 80°N; @ basalt edge much Fe stain, some tuff, + the green to white chert + ryolite w/ metal (mag) flecks.
E. West hump - gossan - large area of red/orange staining across west side hump -

runs parallel (11) course down gossan - buy Fe Stain (9F151X); do all rx of talus directly off of Hump. - non stained tuff - pink yellow "clay" in bedrx "rhyolite" recent rxs. - One black soft dirty rx - my 'soft wood' more contact (tuff to rhyolite) at E (south of hump) also rhyolite float w/o metal. sample of rhyolite w/ metal + yellow clay taken as sample for crush / panning in camp

result ⇒ no Au

metal (very usually) present in good portion of all volcanic type rx no samples taken as nothing but "clear" silica (magnetite) metal present @ G andesite between two limestone beds - 150m of andesite w/ qtz-qtz in veinlets to beds to 6' wide all running ~ NW. Malachite + pyrite w/ andesite at G - qtz + qtz stringers a off opaque yellow 'metal' flecks present in some sample 9F152X at or near contact skarn like mineralization garnet/epidote, calcite vesicles w/ andesite w/ qtz. no gold. though specks of limonite etc present. worked ridge thoroughly - lots of andesite/skarn/qtz + CaCO3/contact @ H volcanic rx- granite w large veins (2"+) of same yellowish qtz - agar striking NW (qtz-granite?) Near volcanic/andesite contact qtz is almost quartzite like ~ black + limonite inclusions - sample 9F153X - no fresh exposure decent weather - no animals

7/23 Investigate fly por cirque/gossan to follow up 1730 ppb assay Sample # Z4 at I.

The problems of prospecting on foot are becoming more apparent every day. To reach I - fly por cirque one must travel many km thru Indian R - Block - arriving there nearly dead w/ only hrs to prospect. Three rx types dominate talus slope & small outcrop along gossan area. diorite ~~por~~ porphyry w/ pyroxene phenocryst (also some pyroxenite rx) the rust covered "rhyolite" - almost chert like and the ~~sed~~ banded sedimentary rx - the first two almost always have metal mineral - as gleck, veins, or "chunks" - to several mm. attempted to zig zag up the "gossan trail" much intensely float - contorted colors w/ lava like volcanics. yellow orange rx w/ small but perfect qtz x-tals dirty volcanic rx. w very minor

malachite / pyrite - flagged all such float - high lots - soon "lots" (1-2' boulders) forming a nice line about 3/4 the way up ridge - very close to the Fuchsing new R-17 block - - damn close if not in.

Rx progressively better - very similar to AZ showing but w/o large mag chunk or garnets - Rx's 50%+ chalcopyrite, pyrite, malachite azurite etc - hopefully Au - several samples taken

9F154X - very rusted rx - much silver pyrite - limonite

9F155X - rusted, rx w/ def cleavage (type? - only breaks on rust) w pyrite etc vein 1/2" + malachite

9F156X like 154 w/more malach - esp yellows

9F158 - rusted rx w/ 1/2" vein of HL5 "iron" metallic silver grey metal - again rx type diff to det very rusty, contorted w/ yellow "dirt" zone w/ rust - Metal b/k streak, H ≤ 5

8/24 - Obj - continue to look at fry pan gossan - see comments for 8/23

Concentrated activity more toward hump mt. ~~...~~ one rx type to add to list - assoc w/ gossan train containing - rx samples listed 8/2 - equigranular - 'granitic rx w/o CaCO$_3$ - rust - qtz bands parallel - ±5% metal ~~...~~ flecks (non mag?) 9F159 - on banded sediment rx a series of fleck - probably pyrite, assoc at first glance w/ rx ~~...~~ fractures but actually thru unit rx w/ concentrations on fractures - some flecks - almost copper color - too small for stick etc - simple tests - found all up ~~...~~ non gossan talus 'train' (9F1513) Several other rx samples taken -

9F1510 - Calcareous rx w/ qtz - volcanics + veinlets of pyrite

9F1511 rusted rx w/ agurite stn

9F1512 " " w/ malachite + various metal (pyrite, chalcopy?

both #511-12 form original gossan train - ~~...~~ up.

many rx like TF1573 have epidote coating - some rusted rocks ("rydite") at top of ridge as are w/ these rx (in space) w/ large amounts of pyrite - very fine grain - in <1" clumps

8/25. Investigate contact between the "buff limestone (goldhorn equiv.) and, to the north, Kluane range "multi phase intrusive", & to the west, greenstone andesites / basalts. @ I black small grain xtaline volcanic w/ black & white "spongy limestone". some Fe stain "on vol"

J-K - limestone outcrops / float w/ volcanic veins ~ S - N.W dip ~70-80° S. 6" to 20' - usually accompanied by Fe w/ either very small metal specks or disjunct veins - magnetic. Some of limestone w/ qtz veins or, at K 6' vein (again strike N/W vertical) w/ much inclusions - a dirty yellow, almost ~~flaky~~ flaky qtz. also qtz w/ mag spots & "veins" in limestone. limestone various S/dip - some twisted some layers horizontal - generally vol / $CaCO_3$ contact much more complex than mapped as lots of fine, equi grain black vol intrude $CaCO_3$

white, some large limestone beds show well into vol. territory. Also at I, granite float w/ qtz. stringers - look for Au as near reported hidden creek pits dug in 1930's, (see 8/21)

@ L - Skarn w/o mineralization - very interesting andradite cut by 2 bands (25'?) of $CaCO_3$ rx - even $CaCO_3$ have pink hue ((same as vertical vein yr on hidden creek on ridge (south) of wacca claims)) Skarn rx cut by granitic type rx - w/ light greens replacing any ferro mags. These rx - few feet dikes - cut per conclusion - from limestone to limestone. Skarn has some minor pyrite + mag etc - somewhere that looks like wire silver 9F1514 - much Fe stain (though not visible at distance) garnet all over also an actinolite - like mineral - almost asbestos like at times - very common - w/ limonite it is mushy on exposure. 9F1515 - gen skarn rx between K-L granodiorite, fe w/ ferro mag "phenocrysts" to all ferromag - slightly mag 9F1516 - sulphide at skarn near top $CaCO_3$ layer

L-M takes observe any contact - basalt/andesite

N - 20' Dolomite Layer - original contact "grainy andesite"

area rust ; O Limestone (100m talus) very rusty andesite (50m) limestone (200m) contact 9F1517 - on first contact on talus slope - in $CaCO_3$ - andesite w/ metal (very small sample) - only metal in whole sequence P - thousands of garnets in rusty andesite fine size - skarn like w/o metal - also a white rock rx strike N/S (as with most $CaCO_3$ in area that can be easily determined) w/ skarn character immediately up ridge - adj to - granite. Q - Sample 9F1518 from rusted "xtaline andesite" w/ metal - near limestone (in canyon) w/ some metal

8/26 Obj look for the "California" gold shown as described by O.D. Conner 1914 (see A) supposedly "1½ miles up the Beaver from the mouth of Tchawsahan Crk and 3½ miles below the USA border the described site as 30' adit in to granite reportedly contains on the surface - no known values from the adit. from Camp to A - granite / granodiorite - excellent low brush coverage + the

start of the cat trail (conan. access to claims) -
adit reported on Right limit (south side)
@ A 30' cliffs of granite slightly yellow on surface S- N/S dip vertical -
9K21- soil sample - very rusted joint between granite rxs on cliff face.
9K22- granite rx w/ very little ferro mags - 10% + metal.
cliffs give way to talus w/ marker cover- no sign of activity. Much yellow color on rx across rover (high w/ recent rain) as can be seen from fly over columns.
(B) rinded pyroxene boulders 1-2' dia.
(C) yellow rind granite - w/o much ferro mag - 1% metal
Continuation of rx seen down river

D - cut across N. face of Tehs. ridge - possibly adit well above Rein - only talus - granodiorite to granite on east side of ridge - lots of mushy! block glen worse

8/27/28 Obj' Deliniate Az skarn deposits w/ digging - uncover more etc - tags:

Dig trench perpendicular to assumed strike (130°) hoping determine bedrx/skarn contact, find width and ascertain as much info as possible regarding deposit. Trench 3-4 ft wide 15' long between two outcrops of garnet xtaline garnet, magnetite etc (as in 9F/55). Rx very dirty no H_2O to clean trench (mostly mostly large float / dislodged ~~float~~ in-situ bedrock) xtaline rx w/ varying amount of 'metal' also a bright red (oxide Fe? / (cuprite?) stain (in clay on bdrx) assoc w/ bedrx. One large 1m x 1m granite boulder w/ small amounts of malachite. abs. 1 float w xtal rx contact with

aphanitic dark grey rock w/ some spotty rx to Hcl. Most important), spectacular float - on top of newly exposed ledrx of pyrite/chalcopyrite, w/ some malachite, azurite - float to 2'x1'. The main mineralized portion of system seems to be uphill from outcrop - under over burden (2'+ of organics Then gravel etc - depth? - all under moss, float trees etc). With rxs found 8/22-24 and E-W contact of limestone, volcanics formed (described 8/22) at ~290° it maybe strike is gen. E-W not N-S as else stated it. - more questions than answers some, non numbered 'shear' samples taken. 11 pits dug along X- axis (grid) running 120° at 10m intervals - these were sampled at "perma" frost level - 6" - 1'+ in many - some anomalous values - nothing great. now take to B horizon - holes to 2-3' - perm encountered in several samples taken (41,0) (-30,0) (-13,0) (52,0) (30,0) (-21,0) and 10,0 - control.

Trouble w/ access - 2 pilots want land on "too small lake" - this one says large

enough but veg. on surface (illusion - none seen on ground)

pyrite/chalcopy. taken for crush/pan - no Au seen (assay 2000 ppb)

Old assay in 9F154 - 15% Cu 1580ppb)

29/30 Brown Crk assessment

31 sept 1-3 fly pan evaluation assessment

sept 4 - pack out samples - gear 83# down beaver - hitch to Burwash ~ 8 hrs walk 7hrs hitch - back hurting - need partner, mule, &

9/6 Tony claims investigate Tony claims - McClintock valley - old Pb Zn Ag vein showing

@ A "shaft into rusty "green purple andesite" w/ some metal - a rusty granitic rx above shaft (in 5') below shaft galena in pods + veinlets - also "black galena" - soft - black streak w/ jumbled qtz rx - much activity - assay of rock material, manganese stain - Fe stain limo - also 2' qtz vein in adj. andesite some andesite w/ metal flecks - S-N, S dip 80°-90° (9D911 rusty granite w/ MO?)

B - Silver King claim post May 13, 1922 ~~KMA~~. N.W. 700 'L 800 R KMA

all hand carved - lots of qtz rusty rx - seen - a rusty "granitic rock" w/ qtz more gtz

N-S running valley (full of H_2O - beaver) has to be strong fault - very interesting area - first galena shown Indian land. C - old pit with qtz carbonate w/ veins of galena to 1" - beautiful sample area cross crossed w/ claims 1952, Luke 1982, etc rusty shale layer adjacent to qtz carb w/ galena above this many outcrops - "andesite-often w/ shale adjacent or a equi grained granite rx often with homogeneous limonite specks - these are relict. fine grain and lack ferro mag minerals Upper hill few outcrops - 20 ruffled grouse - one grp @C 10' outcrop 100' long - consisting of black shale, orange "qtz carb type rx" and the aphanitic porphyritic andesite in a single rock face. D. black breccia w/ "orange soil" - E. ½ km rx free greenstone, granites, breccia no galena but several rx thru out have minor metal - this is true of entire area.
F outcrop limonite stained granitics 9 0 9 10
other outcrops - shale - E W strike

w/ some rust - F-G - same rx types - generally
E-W strike - 80° dips common - rep apparent
in shale - 9 - soil sample - 7899 - red - unrevealed trend
cp in 8/14 - nothing interesting high - valley
bottoms etc are fault areas - seems to be
direct correlation between all claims, showing
in one cluster + low elevation - above all
rusted glaciated volcanics, limestone - no metal.

9/7 Investigate knob between Rand claims +
silver king showing, + 2500'
area w/ numerous old claims - most run
basically N-S - w/ tags Nick 1-8 (at least)
Aug 2, 1968 A. Nichiporick ??
tag # Y25670 (#7)
A - minor malachite in ½" rings around
rust (¼") + minor azurite 90914 in aphanitic light green
also rx; rx w/ Ferro mag + 30% olivine - none
magnetic ; A-B - some float wide
variety granitic to aphanitic - no or
very minor metal ; C - 5 large 2 m dia
granitic float magnetic C-D - 6"
float - again wide variety all
fine grained to aphanitic, pink fine
grain w/ darker pink purple rind 1" w/
rust spots throughout, black xtaline
$CaCO_3$. fine grained grey w/ some
rust most prevalent

or mis mapped w/ 2 ? Tony claim not found ? - same as silver king ?

D-E very little float - Lobe to 1'7
field airy, light colored dirt, on gravel pit
w/ band of ? biotite?
F. rusty light green carbonate w/ some
minor metal as A 90712 also not malachite/
azurite. much float - near surface
bedrock on west side of ridge -
10m below A 1'x2' yellow boulder
- semi fossil - qtz carb w much
manganese (confirmed on malachite at first.
90913. with skarn rx, Cu showing to
immediate west + Pb Ag Zn showing
directly N + meso-thermal signs (manganese.
Here much potential in this immediate
area (also qtz carb/manganese - see 8/12)
good
9/8 Attempt to find Galena showing +
investigate knob in McClintock
valley immediately to S.E.
Rx along southern flank of knob - mostly
dirty green carbonitic - good deal of
float + bedrock - striking N-S
A. bdrk - rusty dark grey aphanitic volcanic
w/ red qtz + pyrite xtals - 1mm + veinlets'
90915
B - fault - stair step layer of bedrx - 6'x 10'
100' + long - "strike" N-S. phenocrystic
green w/ amphibole - some rust

float - 10 rx in a 20m x 100m area. Follow float to near treeline ($\frac{1}{2}^+$ up mtn.) encounter 'cliff' condition on all fronts. red stain on tributary to South (left limit - $\frac{1}{2}$ up mtn) small (fist size) float nearer top end of creek - some 1'3 float lower malachite accounts for 50% of same rx. Some 'dolomite' green w/ malachite?

sample 96145 - alt "qtz" - adj to qtz vein with rusty dirt surrounding (outcrop in malachite ck) same color as stain in left limit trib. between 147 + 146 some granite float - well rounded - white to pink crk at sample 96146 1' wide without float plane (moss banks). crk at 96147 - wide flood plain - no malachite or sulphide evidence in in float

2 specimens of malachite taken from 'malachite' creek (144)

7-25 . Very cloud - rain

Investigate 'French creek' + other

creek draining into to the south of camp. locate possible camp / mining activity as seen from intn previous at I pan 'trickle' - no gorchen as it drains swamp. magnetite present. I - J float fist size to car - nearly all biotite / chlorite schist w/ qtz at K (French cut) pan - Au in nearly all mesh on creek bank - lots of garnet + black sand - well need trail w/ tree cutting (logs). most of creek exposes bedrock - again nearly all schist - at all strikes + dips. Some outcrops w/ Fe stain + some minute quantity of metal in line w/ schist no sample taken. Between K-L on right limit on a twisted up schist outcrop is a white powder - all along the cliff face. Powder - 1" deep in places has a definite texture - almost like spun glass - crushed it gives on a gritty - almost "chalk on the chalk board" type reaction Very strange stuff - 5 specimens taken.

in 1 inch. exten- pyrite xtals, non mag.
c - dull white limestone looking rx - NOT Limestone
with stringers of rust (Fe) - 1mm to 1" running
better shelter thru out - a very altered rk
- much manganese with the 9D916 +
adjacent rx - manganese in layers or
dendritic pattern - also, in immediate
area "granitic looking rock actually
composed of 20% limonite 20% "manganese"
+ rest felsics (feld? qtz?) - quite
common rx 9D917
D. pre Mad - NS running fault? - dirty
aphanitic green rx.
good float/exposure on contact west side
of knob - no sign of 2 galena claims at
~~mid~~ m. Rusty ~~Creek~~. E. float schist w/ qtz
stringers E-F lots of float bedrx - mostly
aphanitic grey to a granular block/grey rock.
some rounded glacial till - all types. D-E blaze
line, follow to large OCM, mud slide
on Michie - no cuts on far side no
mineralization seen on north slope of knob
F to Road - again mainly grey aphanitic felsic
- south slope w/ logging - just bit of exposed
ground because of this some rx w/ 1mm+
pyrite xtals. Bedrock grey w/ small
mount pyrite xtals

9/9 Look @ ultramafic trend north of R-1 Land claims block. samples from that block show consistent ¼% Ni high Cr etc + carbonate all assoc. w/ quartz carbonate w/ mariposite in conjunction with a series of N/W striking u.b. chlorite schistose layers (dip 90°). ub layers of 20° lie between similar size trending layers of the qtz carb. at N. end of R block - (not marked on ground travel crosses lower ground & highway. traveling in old gravel pit uncovers minimal qtz/carb - nothing in swamp - valley up into miners range (pilot mt etc) seems to line up directly w/ travel - nothing showing of geol map but otherwise map shows definite linear assoc w/ known ub body on R block A - orange exterior rx - tuff - dark w/ feldspar etc - much alt up in this area most rx are orange on exterior - mostly tuff - strange lineors - faults etc. B - NNW striking qtz carbonate w/ minor mariposite - sample 9E61 - no ub rx obvious, at D more orange rx - very strong contact strike

southwest - 30' wide - vertical dip - other similar, smaller "dykes" to the north. The orange/rust rx is breccia, at C ~~breccia~~ qtz/carbonate like - rx - 9E62 Inonite w/ vugs - qtz thruout, some xtl block rx 'veins'; 9E63 sample of breccia; 9E64 - rx in breccia w/ qtz & crumbly grey/green material

D-E - rock in area aphanitic grey chert like in places - breaks on fractures - thruout. - some spectacular examples of N-S strike faults - some good contact form land near A, ruff + spruce grouse

9/10 ✓ out area underlain by mag high south of Lewes River Bridge - D-10 research claims area staked in 60's - why, what work done, any outward expression of mag high?

Area of thermokarst topography - regular float from granitic to ss and mostly, grey fine grain, nondescript rock

claim Y54060 - (at least 4/6 claims)

Y54059 → LORNE

45

OW (SW?)

R 1500

July 24 (1970)?

B.D. Coleloug

Area under alt claim block w/ no outcrop. @ 5 sample 9D105 stream sed - "creek" (swamp) runs thru steep canyon of glacial till much float of various types. samples taken at 6 & 7 - strm sed - again just swampy ground w/ very high organic content in samples - probably worthless - ~~silt~~ hand shovel - no hugs in panned material

9/13? Obj - look at area south of Squaw Lk 105 C/5 - between Squaw Lk & Takes corner. The area has a very high in conjunction with an u. basic rock body, @A little - no outcrops on higher ground that has been burned off & trees downed some rocks in roots & on surface (1m²) Dirty block - jumbled rx - magnetic ~~of course~~ not quite a block serpentinite. sample C-1

@C-2 (sample) like C-1 with alt dirty brown rind - magnetic

@ C-3 - float like C-1 w/ red rind but some phaneritic character - black platy material (shiny) some metal (silver) flecks + veins - much cross cutting of rx

@ C-4 - beds of "nearly serpnite" strike NNE - steep dip

C-4 - bladed green (metaperidotite) rx w veins of white/pink opaque qtz (1-5mm) thru out - "serpentinized edges"

@ C-5 - cliff face of "serpentinite" (100+') w "dikes" of white, non calc rx cross cutting - esp. near top of cliff - looks like shubenacadie.

C-5 Bleached white rx on contact w/ serpentinite - some minor green (mariposite) mineral, possible metal flecks ?

C-6 - Soil sample - "orange" at base of cliff

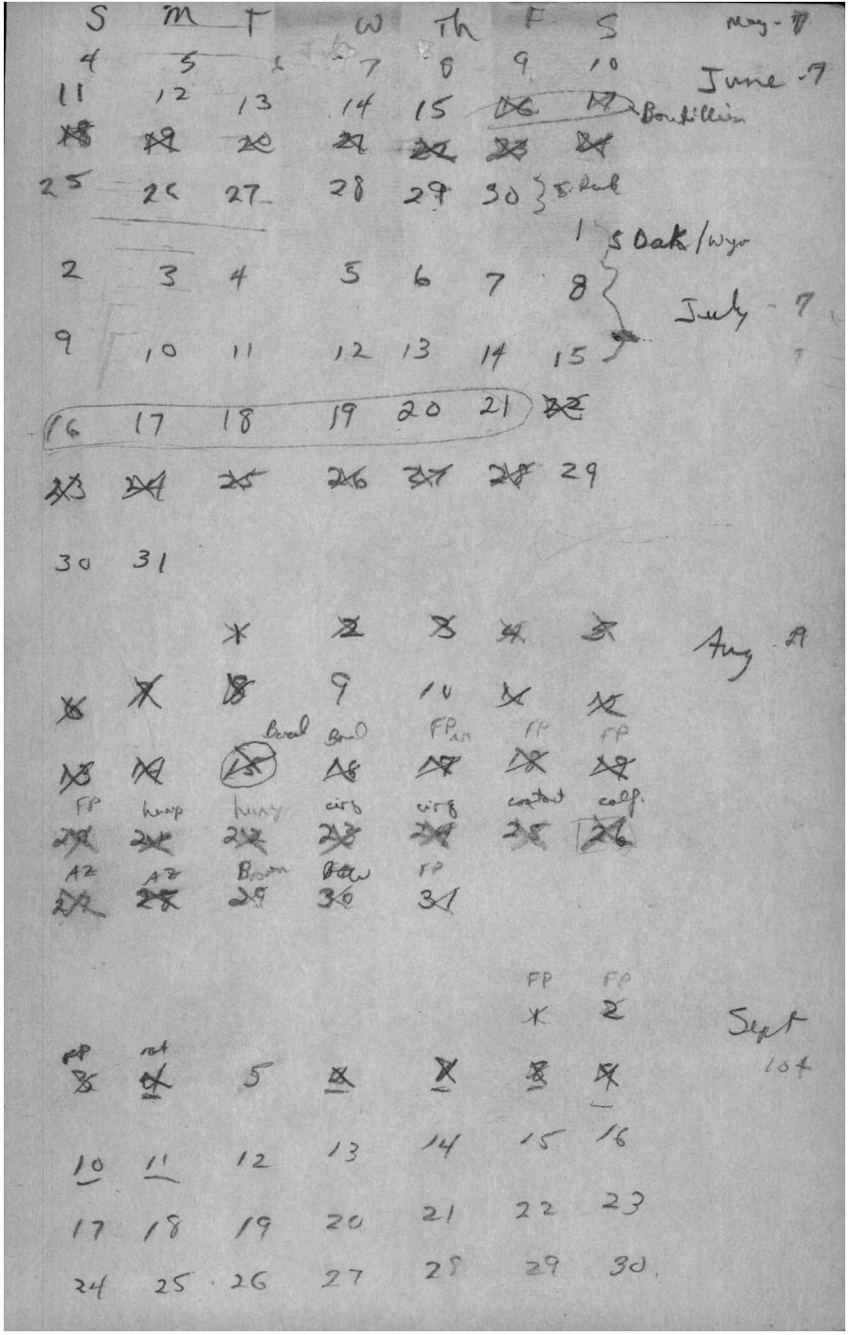
C-4A - sample C-5 like various bleached rxs near ub contact

C-4B - black rx w/ quartzite/mariposite (C-5) veins

C-7 bladed black serpentinite - ub w/ serpentinized red crust - may retire.

other rib bodies across
have very obvious from
ridge top. - needs more work

5/29 hip chain out 369 foot #8


S M T W Th F S
May - 7
June - 7
Bonfillier
SDak
SDak/Wyo
July - 7
Aug - 7
FP
Sept
10-4

Boutellier Creek evaluation 115 B/16 Ron Berdahl
1989 prospector assistance program 8/15-16

A brief visit to Boutellier Creek in July prompted a return to evaluate the creek for a potential recreational / tourist gold 'panning' site as is gaining popularity through out North America at least It would be my intent to sell ~~the~~ any claims to an association or club (such as GPAA) and not run the operation myself I do not believe, given past production / testing results, & my cursory visits, conventional mining is economic here at $380/oz tr.

The Creek is attractive as a recreational creek for several reasons

1) decent access on an old portion of the Alk hwy. (5 km) as well as an old (partially washed out) access up the creek itself to chloritic 'canyon' (see B on map)
2) historic gold creek
3) Gold attraction for tourists going to Ak & "the Klondike"
4) thousands of tourists passing within 3 miles of the creek

My cursory examination by hand methods did not reveal any "course gold", though flakes were found in bedrock exposures near treeline (chloritic canyon) the area above the 'canyon' would easily lend

itself to suction dredger for the recreationist.

It is my opinion, however, that without course gold the creek is not suitable for the serious amateur rec. miner. Possibly old reports or conversations with miners that have been on the creek will reveal course gold that I did not.

Bowen Creek / Hidden Creek 115F/15 Aug 29, 30, 1989

Placer evaluation on this creek continues from a brief visit in 1988.

Given the access problems (~18 miles to AK Hwy), ice until late August in some north aspects, permafrost, large boulders (1m² is very common, with larger boulders common on lower stretches) as well as the close proximity to an outfitters main base camp at Tchawsahlonan Lake, conventional small scale (backhoe type operation etc) mining is, in my opinion, not feasible

Flour gold is found nearly everywhere along the creek's course in stream bank moss samples Course gold (up to .1-.2 g; $1-3 @ 400/g) was found in old workings and in current digging on Bowen Creek.

Water levels drop thru out the season and by August Bowen creek does not flow in its lowest stretches (into Tchawsahlonan creek). Periodic rains, if heavy dramatically increase the flow on short notice. The stream should rate as a class 4 placer creek - eg no fish & historic producer.

Given the creek's environmental make up, steep with large pools & relatively low water levels it appears Bowen Creek (& Hidden) might be a good

candidate for a suction dredge (say 3"?) with potential economic results. This would make a great recreational gold creek if the access was not a problem, or if there is a market for "fly in "wilderness" gold panning."

The creeks gradient might also be used, if a water license for such use could be obtained, to hydraulicly mine portions of the bank.

Someone would spend considerable time & effort relieving Bowen/Hilton creeks of their gold - they might even do well by it.

Addendum to prospectors assistance note book 1989
for 8/18, 19, 20, 31 & 9/1-3, 1989

WORK accomplished on Fry Pan Creek Prospecting lease #7944 - All by hand methods.

Test pit #1: adjacent to #2 1988
width: 4'
length: 8' volume: 7 yds
depth: 6'

Description: Deteriorated bedrock at 3½ - 4 feet followed below water table (5½') to 6'. Bedrock is flakey ~~grey~~ mafic rock with Hardness >5.5 ~~to~~ with some calcite stringers. Angular fragments to 6" orange crust.

Overburden: Sand to 1 meter with boulders & gravel to 3½ foot

Pay streak: Course gold - smaller than previous season - .2 g) sporatic through out broken orange/red clay & bedrock w/ small (¼") copper nuggets.

Sample technique: sluice into gravel - no contamination of creek proper.

TEST PIT #2: adjacent to #6 1988
width: var to 2.5'
length: var to 3' volume: 2 yds - previous season
depth: 6.5'

Description: attempt to sluice 2 yds of gravel from bench dug previous year. Also clean

sluffed material from shaft #7 (1988)

Sampling technique: Attempted to use old homemade sluice set into make shift tailings pond, with limited success. Some small 'course' gold + small (⅛") nuggets recovered. Effectiveness of sluice questioned. In addition gravels were from somewhere above bedrock - eg. old working tunnel.

Pay streak: undetermined

TRENCH #3 - above Devil's Gate approx 200 yds. This was an attempt to uncover virgin ground not previously ground sluiced by early miners. It is slightly elevated from present creek levels and was used for "tailing" from ground sluice operation. Apparently an attempt was made to sluice this "bar" as well but the operation was abandoned.

Description: Bedrock was only reached on the down creek side of the trench. Large boulders + assorted gravels w/ willow complicated matters

Trench length: 100'
width: 2' volume: 14 yds
depth: 1'-6'

Over burden : assorted gravels to boulders (1m++) in matrix of willow root.

Pay streak: as bedrock was only reached on the westerly end of the trench no certainty of size of quality of paystreak can be made. Course gold was found in crevises in bedrock.

Sampling tech : pan

#4 Various crevise work. Golf is present in varying amounts in crevises through out the creek - especially where bedrock is perpendicular to creek flow. Most bedrock is well consolitated.

Conclusion: The lease should be rehewed once again. Last years report outlines the advantages + disadvantages Fry Pan has to offer the potential miner. These still hold true. I believe the use of conventional machinery is not ~~practiable~~ practical. However the creek lends itself to several possible mining methods. only environmental concerns / water licensing requirements ~~keep~~ could poise problems herein.

Mining possibilities include:

1) tunnel / shafts with steam point into southern hill side (north facing) during winter months. This method would require a propane or other similar heat source as wood is rather scarce. Disadvantages include obtaining specialized equipment, transport costs (helecopter ?) lodging during winter, slow progress and an uncertain result. However the prospector could use his usually slow winter months while saving summers for prospecting

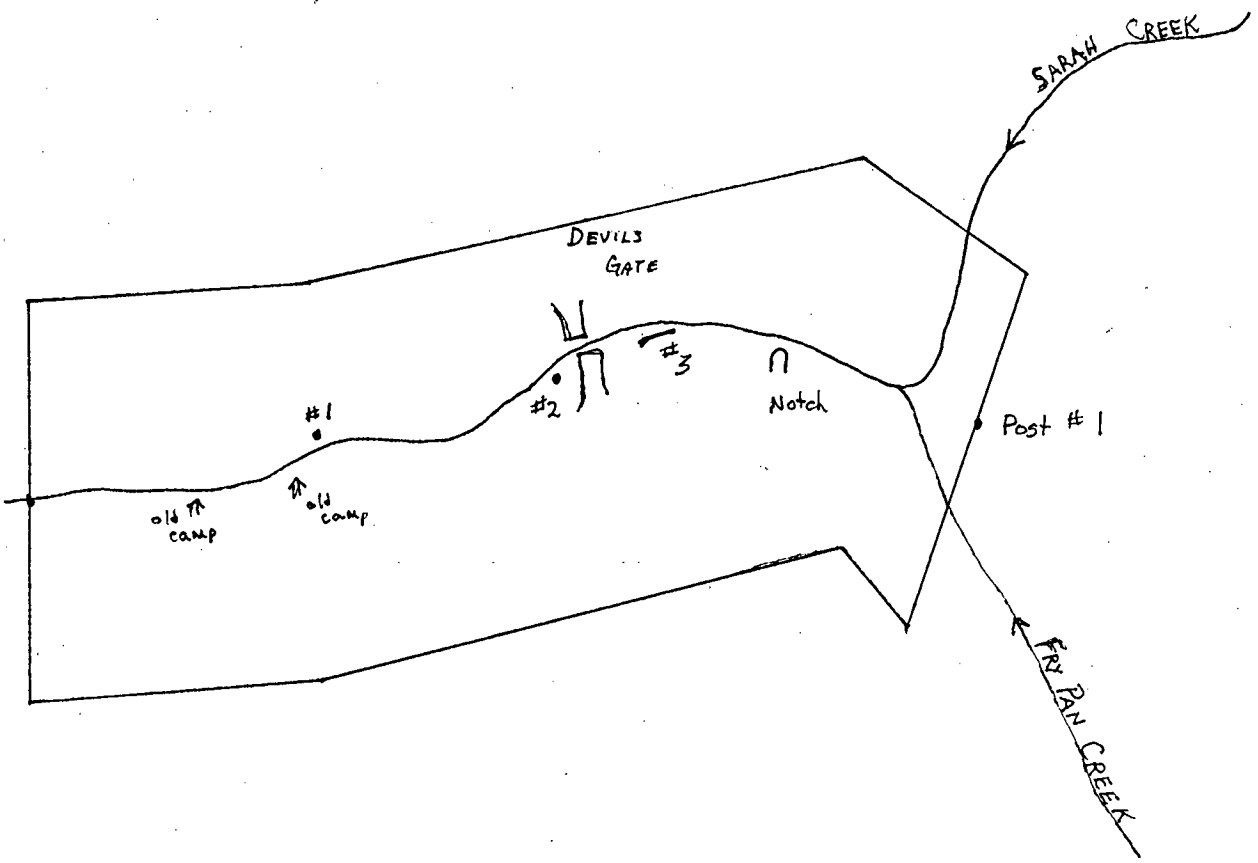
2) hydraulic methods using a pump or the natural gadient of the creek. Regulatory requirements aside this method could be "extremely" efficent in areas like #2-1989, a bench elevated above the creek level w/ permafrost, the entire south side (left limit) of the creek lends itself to this type of operation. Light pumps or even, if one is using the natural gradient for water, light 6"(?) PVC pipe could be used. A pipe could be run for 800' above devils gate which would supply sufficent head (150'(?)) to mine below the gate

3) suction dredge. Given that a large portion of the creek has been ground sluiced, is fraught with pools and bedrock (fractured) the creek is an ideal place for this

underrated equipment I feel a suction dredge could be employed in the proper situation (& this is one) to economically mine w/o anywhere near the "negative" environmental consequences of say a D-9. Fry Pan Creek, by fish, no longer runs into Tchawsahmon Creek, as well the 100's of pools act as natural catch basins. the creek is flushed each spring at any rate with much particulate matter.

Conclusion: the potential exists for an economic operation on Fry Pan if regulations will allow for the use of a small (3-5") suction dredge or hydraulic washing. It is my intent to renew the lease one more season & investigate the regulatory requirements

1 MILE PLACER LEASE
FRY PAN CREEK # 7944
- Assessment work for 2nd renewal -
1989



N

1" = 1,000'

RON BERDAHL
Fry Pan Creek Prospect Lease # 79

J.P. Ross (K.G)

ACME ANALYTICAL LABORATORIES LTD. 852 E. HASTINGS ST. VANCOUVER B.C. V6A 1R6 PHONE(604)253-3158 FAX(604)253-1716

GEOCHEMICAL ANALYSIS CERTIFICATE

ICP - .500 GRAM SAMPLE IS DIGESTED WITH 3ML 3-1-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR AND IS DILUTED TO 10 ML WITH WATER. THIS LEACH IS PARTIAL FOR MN FE SR CA P LA CR MG BA TI B W AND LIMITED FOR NA K AND AL. AU DETECTION LIMIT BY ICP IS 3 PPM.
* SAMPLE TYPE: P1 SOIL P2 ROCK AU* ANALYSIS BY ACID LEACH/AA FROM 10 GM SAMPLE. HG ANALYSIS BY FLAMELESS AA.

DATE RECEIVED: AUG 30 1988 DATE REPORT MAILED: Sept 8/88 ASSAYER. C. Leong ..D.TOYE OR C.LEONG, CERTIFIED B.C. ASSAYERS

NORANDA EXPLORATION PROJECT 8809-002 312 File # 88-4064 Page 1

SAMPLE#	Mo PPM	Cu PPM	Pb PPM	Zn PPM	Ag PPM	Ni PPM	Co PPM	Mn PPM	Fe %	As PPM	U PPM	Au PPM	Th PPM	Sr PPM	Cd PPM	Sb PPM	Bi PPM	V PPM	Ca %	P %	La PPM	Cr PPM	Mg %	Ba PPM	Ti %	B PPM	Al %	Na %	K %	W PPM	Au* PPB	Hg PPB
Q1	1	103	33	136	1.3	23	20	1094	5.04	1955	5	ND	3	54	1	7	3	70	.39	.074	15	33	1.04	209	.14	6	2.40	.02	.34	2	210	120
Q1 D	1	113	38	203	1.3	20	20	1118	5.08	1855	5	ND	3	55	2	7	2	70	.43	.077	15	31	1.01	208	.14	9	2.26	.02	.36	2	230	20
Q2	1	22	3	115	.1	15	12	411	2.96	56	5	ND	2	39	1	2	2	52	.60	.095	11	25	.82	201	.17	4	1.77	.03	.30	1	4	30
Q3	1	111	55	689	3.9	20	17	763	5.95	3670	5	ND	2	28	13	10	7	51	.29	.054	14	25	.80	188	.10	16	1.98	.02	.19	1	98	80
Q3 (8,9)	1	66	21	534	1.6	20	16	746	4.44	1364	5	ND	2	31	6	7	2	53	.34	.042	13	26	.84	164	.12	5	2.05	.03	.17	1	330	50
Q4	1	150	153	1267	3.8	20	18	727	5.07	5252	5	ND	2	52	29	11	2	62	.48	.091	11	22	1.13	296	.17	2	2.62	.03	.34	3	112	30
Q4 B	1	219	208	1629	5.3	17	13	748	5.59	9732	5	ND	2	55	41	17	5	60	.49	.097	11	20	1.11	339	.17	2	2.54	.03	.38	5	220	100
Q5	1	462	497	1466	33.1	11	14	633	9.23	10864	7	4	4	108	29	47	42	66	.44	.117	17	25	.97	303	.12	5	2.08	.03	.55	1	2680	300
Q5 A1	1	356	496	2184	14.7	14	20	1122	7.45	9421	5	16	2	70	49	32	20	80	.57	.137	16	30	1.27	658	.16	10	2.26	.02	.61	1	9780	150
Q6	1	49	412	1126	2.1	16	26	2375	7.20	3794	5	ND	3	59	9	18	4	48	.61	.086	14	29	1.00	240	.08	8	1.94	.02	.16	1	370	50
Q6 A6	1	47	204	851	1.6	15	30	2476	7.32	3449	5	ND	2	60	7	15	2	41	.61	.100	13	22	.92	208	.07	9	1.65	.02	.17	1	320	30
Q7	1	107	266	1573	1.6	10	24	1557	6.00	2553	5	ND	3	42	20	10	5	44	.53	.130	21	23	.82	204	.06	7	1.64	.01	.17	1	171	50
Q8	1	23	23	136	.3	20	13	391	3.25	179	5	ND	1	25	1	3	2	58	.30	.039	9	28	.91	159	.17	7	2.05	.02	.26	1	33	30
Q9	1	375	1114	6783	12.9	8	39	1911	16.44	11369	5	3	3	276	138	192	11	33	1.86	.096	10	11	.66	115	.02	15	1.15	.01	.12	63	1070	260
Q10	2	88	99	747	1.7	50	22	1042	6.03	6781	5	ND	2	256	7	63	4	30	2.47	.078	14	24	.93	167	.03	10	1.40	.01	.18	1	215	30
Q11	1	35	15	159	.2	21	13	452	3.77	147	5	ND	3	29	1	2	2	73	.50	.110	14	27	.85	127	.16	6	1.61	.02	.26	1	41	100
Q12	1	49	42	370	.3	22	18	765	4.33	827	5	ND	4	29	3	4	2	65	.39	.074	20	34	1.09	231	.16	5	2.32	.02	.34	1	25	30
STD C/AU-S	16	56	35	124	6.7	68	28	1051	4.06	42	18	8	37	48	18	17	18	56	.46	.087	40	55	.91	178	.06	34	1.93	.06	.13	11	48	1400

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Geochemical Lab Report

REPORT: V89-01944.1 (COMPLETE)

REFERENCE INFO:

CLIENT: MR. RON BERDAHL
PROJECT: NONE GIVEN

SUBMITTED BY: R. BERDAHL
DATE PRINTED: 23-JUL-89

ORDER	ELEMENT		NUMBER OF ANALYSES	LOWER DETECTION LIMIT	EXTRACTION	METHOD
1	Cu	Copper	7	1 PPM	HNO3-HCl HOT EXTR	Atomic Absorption
2	Pb	Lead	3	2 PPM	HNO3-HCL HOT EXTR	Atomic Absorption

SAMPLE TYPES		NUMBER	SIZE FRACTIONS		NUMBER	SAMPLE PREPARATIONS	NUMBER
S	SOILS	3	1	-80	3	DRY, SIEVE -80	3
R	ROCK OR BED ROCK	7	2	-150	7	CRUSH,PULVERIZE -150	7

REMARKS: Assay of high Cu to follow on V89-01944.6

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Geochemical Lab Report

REPORT: V89-01944.1

DATE PRINTED: 23-JUL-89

PROJECT: NONE GIVEN

SAMPLE NUMBER	ELEMENT UNITS	Cu PPM	Pb PPM
S1 SSS #1		63	
S1 SSS #2		88	
S1 SSS #3		30	
R2 D10-1			11
R2 D10-2			22
R2 D10-3			15
R2 9F153		10950	
R2 9F154		>20000	
R2 9F155		3200	
R2 9F156		>20000	

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Geochemical Lab Report

REPORT: V89-03540.1 (COMPLETE)

REFERENCE INFO:

CLIENT: MR. RON BERDAHL
PROJECT: NONE GIVEN

SUBMITTED BY: R. BERDAHL
DATE PRINTED: 22-JUL-89

ORDER	ELEMENT		NUMBER OF ANALYSES	LOWER DETECTION LIMIT	EXTRACTION	METHOD
1	Cu	Copper	34	1 PPM	HNO3-HCl HOT EXTR	Atomic Absorption

SAMPLE TYPES	NUMBER	SIZE FRACTIONS	NUMBER	SAMPLE PREPARATIONS	NUMBER
S SOILS	22	1 -80	22	DRY, SIEVE -80	22
R ROCK OR BED ROCK	12	2 -150	12	CRUSH,PULVERIZE -150	12

REPORT COPIES TO: MR. RON BERDAHL

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Geochemical Lab Report

REPORT: V89-03540.1

DATE PRINTED: 22-JUL-89

PROJECT: NONE GIVEN PAGE 1

SAMPLE NUMBER	ELEMENT UNITS Cu PPM
S1 9G1	27
S1 9G12	36
S1 9G13	15
S1 9G14	65
S1 9G15	13
S1 9G16	37
S1 9G17	27
S1 9G18	24
S1 9G19	27
S1 9G21	73
S1 9G23	48
S1 9G110	30
S1 9G111	24
S1 9G112	27
S1 9G113	23
S1 9G118	54
S1 9G119	39
S1 9G211	92
S1 9G212	48
S1 9G214	53
S1 9G215	64
S1 9G218	87
R2 9B161	32
R2 9G22	109
R2 9G24	35
R2 9G25	17
R2 9G26	54
R2 9G114	5
R2 9G115	20
R2 9G116	7
R2 9G210	1666
R2 9G213	130
R2 9G216	39
R2 9G217	69

CAVENDISH ANALYTICAL LABORATORY LTD.

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Ph:(604)299-2560 Fax:299-6252

CERTIFICATE OF ANALYSIS

TO : NORTHERN ANALYTICAL LAB LTD.
105 COPPER RD.
WHITEHORSE YUKON
PROJECT : 29152
TYPE OF ANALYSIS : ICP

CERTIFICATE # : 890901B3
INVOICE # : SEPT 89
DATE ENTERED : 89/09/06
FILE NAME : ICP901B3
PAGE # : 1

PRE FIX	SAMPLE NAME	PPM MO	PPM CU	PPM PB	PPM ZN	PPM AG	PPM NI	PPM CO	PPM MN	% FE	PPM AS	PPM U	PPM AU	PPM HG	PPM SR	PPM CD	PPM SB	PPM BI	PPM V	% CA	% P	PPM LA	PPM CR	% MG	PPM BA	% TI	PPM B	% AL	% NA	% SI	PPM W	PPM BE
	41.0	2	3136	7	107	5.7	40	23	551	4.37	16	NA	ND	ND	33	1	6	2	119	1.20	0.12	8	45	1.07	105	0.13	5	1.75	0.01	0.01	13	2
	52.0	1	1722	6	78	2.1	35	19	511	3.41	13	NA	ND	ND	32	1	2	2	111	1.35	0.10	5	40	1.03	109	0.12	5	1.62	0.01	0.01	4	2
→	30.0	1	856	6	68	2.4	32	21	527	3.61	14	NA	ND	ND	31	1	3	2	116	0.89	0.09	6	43	1.07	97	0.13	5	1.60	0.01	0.01	6	2
	10.0	1	338	8	49	0.9	27	21	584	2.91	12	NA	ND	ND	24	1	2	4	83	0.96	0.08	5	33	0.79	87	0.10	5	1.34	0.01	0.01	7	1
	21.0	2	81	14	51	0.5	30	20	545	3.01	9	NA	ND	ND	29	1	4	7	113	0.62	0.09	6	45	1.23	100	0.13	5	1.56	0.01	0.01	5	2
	30.0	1	67	8	47	0.2	28	18	430	2.75	10	NA	ND	ND	27	1	3	5	104	0.61	0.08	4	41	1.20	94	0.13	5	1.45	0.01	0.01	4	2
	13.0	1	80	7	45	0.3	29	18	471	2.87	13	NA	ND	ND	27	1	2	3	102	0.68	0.08	5	40	1.08	96	0.12	5	1.49	0.01	0.01	4	2
	9F1516	2	2424	16	31	3.3	66	91	961	13.63	10	NA	ND	ND	28	2	4	2	17	1.25	0.10	3	21	0.13	25	0.03	5	0.58	0.01	0.02	4	1
	9K21	28	169	4	59	1.1	29	12	195	5.87	60	NA	ND	ND	5	1	8	2	145	0.25	0.15	15	133	1.14	28	0.13	41	1.22	0.01	0.01	2	2
→	9F1511	9	8814	10	187	18.6	8	3	594	9.00	36	NA	ND	ND	19	3	2	2	139	2.04	0.06	57	28	0.86	16	0.06	105	2.06	0.01	0.02	2	2
	9F1517	9	234	23	59	3.1	214	70	285	10.03	17	NA	ND	ND	98	3	8	2	56	1.62	0.07	4	107	1.69	126	0.09	1310	2.21	0.01	0.02	6	1
	9F151X	2	605	6	17	1.6	52	49	83	4.82	14	NA	ND	ND	140	1	8	4	19	2.15	0.08	4	23	0.15	28	0.05	627	2.73	0.01	0.01	5	1
→	9F1512 X	3	8432	14	305	25.7	6	1	809	7.27	34	NA	ND	ND	31	4	5	2	137	5.50	0.80	5	50	1.42	9	0.06	163	2.24	0.01	0.02	1	2
→	9F156X	3	18978	1	478	29.3	49	67	217	14.99	17	NA	ND	ND	18	2	2	2	123	0.29	0.03	157	27	0.25	6	0.05	1322	0.94	0.01	0.01	1	2
→	9F155 X	3	6117	6	120	16.4	11	11	237	7.59	18	NA	ND	ND	19	1	2	2	107	0.96	0.08	177	38	0.45	19	0.11	380	0.82	0.01	0.02	1	2
	9K22	2	301	1	14	0.4	11	13	57	1.70	6	NA	ND	ND	6	1	2	2	20	0.22	0.11	7	38	0.13	11	0.01	244	0.32	0.01	0.02	1	1
	STD5	23	785	517	512	18.0	242	311	1008	3.22	346	NA	60	648	704	183	922	420	127	0.46	3.81	1103	82	0.45	272	0.13	605	1.38	0.01	0.01	370	60

CERTIFIED BY : C.J. Pearce

CAVENDISH ANALYTICAL LABORATORY LTD.

2225 S. Springer Ave., Burnaby,
British Columbia, Can. V5B 3N1
Ph:(604)299-2560 Fax:299-6252

CERTIFICATE OF ANALYSIS

TO : NORTHERN ANALYTICAL LAB LTD.
105 COPPER RD.
WHITEHORSE YUKON

PROJECT : 29157
TYPE OF ANALYSIS : ICP

CERTIFICATE # : 890908C
INVOICE # : SEPT 89
DATE ENTERED : 89\09\09
FILE NAME : ICP908C
PAGE # : 1

PRE FIX	SAMPLE NAME	PPM MO	PPM CU	PPM PB	PPM ZN	PPM AG	PPM NI	PPM CD	PPM MN	% FE	PPM AS	PPM U	PPM AU	PPM HG	PPM SR	PPM CD	PPM SB	PPM BI	PPM V	% CA	% P	PPM LA	PPM CR	% MG	PPM BA	% TI	PPM B	% AL	% NA	% SI	PPM W	PPM BE
	9D91	4	11	8	2	0.1	1455	72	696	3.30	24	NA	ND	ND	121	1	10	4	20	1.59	0.01	1	1017	12.72	14	0.01	5	0.18	0.01	0.02	5	1
	9D93	5	50	19	39	0.1	26	24	271	3.64	12	NA	ND	ND	47	1	5	5	188	0.85	0.13	11	72	0.86	246	0.22	5	1.17	0.01	0.03	3	3
	9D94	4	93	22	44	0.1	21	32	710	3.94	20	NA	ND	ND	26	1	7	2	155	1.07	0.14	12	45	1.97	66	0.20	168	1.66	0.01	0.04	5	3
	9D95	4	83	26	39	0.1	17	30	537	4.08	31	NA	ND	ND	23	1	8	12	117	1.58	0.14	11	27	1.58	43	0.14	111	1.81	0.01	0.03	5	2
	9D96	2	98	1	48	0.1	4	18	390	3.08	4	NA	ND	ND	31	1	2	2	133	0.94	0.14	9	15	1.01	62	0.16	54	1.21	0.01	0.02	1	2
	9D98	1	81	1	46	0.1	5	17	536	2.82	8	NA	ND	ND	94	1	2	2	93	1.96	0.17	12	18	1.19	157	0.16	5	1.63	0.01	0.02	1	2
	961418	2	32	1	65	0.1	36	22	226	3.40	2	NA	ND	ND	17	1	2	2	32	0.63	0.07	5	54	0.96	73	0.13	257	1.41	0.01	0.02	1	1
	961422	4	91	32	77	0.6	20	45	2775	6.22	95	NA	ND	ND	90	1	16	2	42	2.73	0.24	8	4	1.32	186	0.01	629	0.72	0.01	0.03	6	1
	961410	1	17	1	28	0.5	36	13	811	3.49	149	NA	ND	ND	439	1	2	2	26	8.37	0.10	1	31	3.07	22	0.01	5	0.11	0.01	0.02	1	1
	96146	7	12	223	62	5.8	5	1	41	0.75	166	NA	ND	ND	103	1	17	2	15	1.43	0.94	6	71	0.03	109	0.01	7	0.13	0.01	0.01	2	1
	961412	4	61	22	43	0.2	49	32	254	3.20	11	NA	ND	ND	16	1	6	2	61	0.33	0.13	19	114	1.05	204	0.11	210	1.25	0.01	0.03	3	1
	96143	10	8	16	45	0.1	32	18	96	1.95	7	NA	ND	ND	5	1	5	2	14	0.08	0.04	22	126	0.53	40	0.13	5	0.88	0.01	0.04	2	1
	96145	5	9	36	35	0.9	25	10	1030	3.40	1627	NA	ND	ND	249	1	9	2	5	7.07	0.16	13	41	1.71	76	0.01	38	0.14	0.01	0.03	4	1
	9D92	1	15	13	27	0.1	29	10	304	1.28	9	NA	ND	ND	36	1	2	2	38	0.78	0.07	8	37	0.51	135	0.07	5	0.61	0.01	0.01	1	1
	9D97	5	70	92	66	0.1	22	96	1652	11.21	108	NA	ND	ND	83	1	8	2	173	1.34	0.67	18	34	1.20	511	0.04	17	1.61	0.01	0.06	5	3
	96124	1	29	10	61	0.1	35	19	417	2.43	16	NA	ND	ND	29	1	3	2	38	0.45	0.17	8	32	0.69	46	0.04	5	1.11	0.01	0.01	1	1
	96125	1	25	9	59	0.1	32	17	405	2.14	14	NA	ND	ND	24	1	2	2	36	0.44	0.13	6	32	0.66	46	0.04	5	1.03	0.01	0.01	1	1
	96126	1	21	17	49	0.1	27	16	371	2.12	17	NA	ND	ND	47	1	2	2	51	1.46	0.18	8	38	0.64	49	0.05	5	0.86	0.01	0.01	2	1
	96146	4	48	59	304	3.9	53	21	624	3.08	129	NA	ND	ND	48	1	7	2	75	1.02	0.22	11	32	0.65	427	0.09	21	0.85	0.01	0.01	1	1
	96147	2	31	23	100	0.1	42	17	365	2.37	40	NA	ND	ND	99	1	5	2	59	3.19	0.16	13	37	0.84	163	0.09	14	0.85	0.01	0.01	4	1
	96148	1	14	16	47	0.1	22	14	246	2.92	19	NA	ND	ND	41	1	2	2	95	1.31	0.12	10	33	0.58	71	0.11	5	0.58	0.01	0.01	2	1
	96149	1	31	23	74	0.1	41	24	392	3.35	26	NA	ND	ND	105	1	5	2	53	1.96	0.11	20	30	0.69	72	0.10	5	1.07	0.01	0.01	2	1
	96142	1	15	19	61	0.2	26	19	288	3.39	18	NA	ND	ND	69	1	2	2	85	1.35	0.12	15	21	0.55	42	0.12	5	0.76	0.01	0.01	2	1
	96144	4	47	28	134	0.1	83	24	412	2.96	78	NA	ND	ND	133	1	5	2	64	3.34	0.17	21	63	0.86	211	0.09	5	0.95	0.01	0.01	5	1
	961413	2	33	19	79	0.1	44	26	423	3.10	45	NA	ND	ND	21	1	2	2	52	0.37	0.08	30	40	0.76	106	0.11	5	1.44	0.01	0.01	3	1
	961414	2	36	20	72	0.1	60	27	480	3.18	58	NA	ND	ND	32	1	2	2	48	0.78	0.12	24	65	0.92	87	0.09	5	1.31	0.01	0.01	3	1
	961415	2	27	16	61	0.1	43	23	369	2.90	47	NA	ND	ND	27	1	2	2	37	0.56	0.11	22	37	0.70	57	0.07	5	1.06	0.01	0.01	2	1
	961416	2	33	20	74	0.1	44	24	470	3.11	61	NA	ND	ND	46	1	2	2	40	0.91	0.12	28	32	0.71	72	0.07	5	1.12	0.01	0.02	3	1
	961417	2	36	17	75	0.7	37	23	529	3.12	72	NA	ND	ND	59	1	2	2	40	1.08	0.10	35	19	0.59	70	0.05	5	0.92	0.01	0.02	3	1
	961419						SAMPLE		MISSING																				0.01			
	961421	8	141	47	3468	2.0	197	161	4483	13.98	118	NA	ND	ND	41	35	12	7	253	1.08	0.30	12	2	2.10	1156	0.16	5	2.60	0.01	0.02	7	5
	96148C	2	13	18	95	0.1	28	24	381	7.90	18	NA	ND	ND	28	1	3	11	342	0.94	0.16	11	90	0.34	53	0.27	5	0.35	0.01	0.01	2	5
	96147-2	5	58	65	467	1.1	74	29	788	3.30	123	NA	ND	ND	55	3	10	2	71	1.22	0.19	14	43	0.88	464	0.10	15	1.15	0.01	0.01	3	2
	961423	3	41	38	135	0.1	55	21	476	2.58	41	NA	ND	ND	103	1	7	9	59	3.46	0.16	17	46	0.96	221	0.09	5	1.03	0.01	0.01	6	1
	96147	1	27	18	71	0.1	17	17	212	3.80	7	NA	ND	ND	19	1	2	8	150	0.47	0.14	11	17	0.28	23	0.18	5	0.40	0.01	0.01	2	2
	?	2	30	23	73	0.1	37	21	419	2.86	23	NA	ND	ND	45	1	3	8	56	1.07	0.14	12	43	0.75	53	0.05	5	1.17	0.01	0.01	3	1
	STDB	29	135	111	139	0.8	15	5	136	0.72	27	NA	ND	ND	16	1	2	12	10	0.66	0.02	7	115	0.24	294	0.02	10	0.22	0.01	0.03	29	1
	STDS	25	807	569	547	18.7	263	350	1063	3.44	363	NA	62	726	787	207	891	470	141	0.51	2.78	1201	90	0.46	334	0.14	743	1.47	0.01	0.01	373	64

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CAVENDISH ANALYTICAL LABORATORY LTD.

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CERTIFICATE OF ANALYSIS

TO : NORTHENRN ANALYTICAL LAB LTD
105 COPPER ROAD
WHITEHORSE, YT
PROJECT : 34503
TYPE OF ANALYSIS : ICP

CERTIFICATE # : 891026C
INVOICE # : OCT 89
DATE ENTERED : 89/11/01
FILE NAME : I1026C
PAGE # : 1

PREFIX	SAMPLE NAME	PPM MO	PPM CU	PPM PB	PPM ZN	PPM AG	PPM NI	PPM CO	PPM MN	% FE	PPM AS	PPM U	PPM AU	PPM HG	PPM SR	PPM CD	PPM SB	PPM BI	PPM V	% CA	% P	PPM LA	PPM CR	% MG	PPM BA	% TI	PPM B	% AL	% NA	% SI	PPM W	PPM BE
	9D912	11	1224	551	344	10.3	15	18	291	2.63	29	5	ND	ND	119	3	18	9	62	2.59	0.22	28	78	0.43	37	0.16	245	2.45	0.01	0.02	10	2
	9D913	7	12	12	12	0.1	1513	79	410	4.03	5	5	ND	ND	11	5	2	8	30	0.25	0.02	1	828	13.99	278	0.01	8	0.26	0.01	0.01	1	1
	9D914	7	1316	2583	1813	11.6	29	1	840	3.50	23	5	ND	ND	112	8	21	3	69	1.97	0.23	15	56	0.98	53	0.15	25	2.80	0.01	0.02	11	2
	9D915	7	304	41	100	1.3	17	33	661	9.54	4	5	ND	ND	42	5	10	2	150	0.46	0.02	1	71	1.50	32	0.23	238	2.91	0.01	0.02	3	2
	9D916	4	8	42	42	0.2	3	1	532	0.62	19	5	ND	ND	10	1	3	3	4	0.59	0.03	14	46	0.05	148	0.01	5	0.30	0.01	0.01	1	1
	9D917	10	16	48	39	0.3	5	1	423	0.90	13	5	ND	ND	17	1	4	3	7	0.59	0.03	15	115	0.07	186	0.01	5	0.56	0.01	0.01	1	1
	C1	3	6	7	17	0.2	924	97	760	5.32	2	5	ND	ND	3	5	2	3	6	0.08	0.02	1	74	16.51	18	0.01	11	0.16-1198.		0.04	1	1
	C2	3	3	1	31	0.1	1139	103	864	5.81	2	5	ND	ND	3	7	2	2	5	0.11	0.02	1	33	18.04	13	0.01	5	0.01-1180.		0.04	1	1
	C3	3	3	1	34	0.1	1000	104	821	5.92	2	5	ND	ND	6	6	2	4	7	0.19	0.03	1	54	16.50	47	0.01	5	0.03-1201.		0.03	1	1
	C4	2	2	9	1	0.1	130	8	66	0.85	9	5	ND	ND	1	1	10	2	24	0.43	0.01	1	567	2.16	7	0.01	5	0.82	0.01	0.01	1	1
	C5	2	1	12	5	0.1	31	1	29	0.16	15	5	ND	ND	1	1	6	5	15	1.66	0.03	1	207	0.41	5	0.02	5	0.86	0.01	0.02	1	1
	C6	2	29	53	195	0.5	105	27	742	3.65	20	5	ND	ND	23	2	6	2	72	0.72	0.04	6	204	1.93	273	0.12	5	1.79	0.03	0.01	2	1
	C7	2	19	8	18	0.1	504	68	590	4.31	2	5	ND	ND	3	3	2	2	29	0.10	0.01	1	752	12.06	16	0.01	27	0.35-1621.		0.02	1	1
	9F152	6	61	21	61	0.2	32	3	525	2.83	211	5	ND	ND	203	2	79	5	103	2.54	0.05	5	114	0.90	76	0.21	5	3.11	0.05	0.03	8	2
→	9F158	17	412	21	211	1.3	98	46	790	8.45	20373	5	ND	17	6	4	20552	2	56	0.20	0.03	8	92	0.61	13	0.01	1271	0.24	0.01	0.01	1	1
→	9F1510	59	582	3	146	1.4	23	14	1411	7.01	31427	5	ND	31	9	2	4117	2	60	0.38	0.06	18	65	0.53	14	0.01	319	0.22	0.01	0.01	2	1
	9F1513	4	51	19	79	0.2	29	8	120	1.69	202	5	ND	ND	65	2	95	5	64	0.92	0.09	4	51	0.80	26	0.22	87	1.67	0.01	0.02	1	1
	9F1515	5	77	1	12	0.1	16	11	1299	5.03	48	5	ND	ND	57	4	35	2	45	11.68	0.09	6	48	0.07	16	0.03	5	0.81	0.01	0.04	1	1
	9F1518	3	62	13	39	0.1	60	27	142	4.08	41	5	ND	ND	319	2	19	2	53	2.63	0.08	2	54	0.55	32	0.12	585	4.61	0.01	0.04	10	1
	C-4A	2	1	7	1	0.2	97	1	70	0.85	13	5	ND	ND	4	1	2	11	102	6.81	0.01	1	300	2.29	7	0.05	5	4.84	0.01	0.02	9	2
	C-4B	2	3	10	6	0.2	351	21	90	1.88	9	5	ND	ND	1	1	2	4	47	0.49	0.01	1	1094	6.58	7	0.01	5	3.11	0.01	0.02	2	1
	9E61	6	9	10	10	0.2	1028	56	386	3.58	13	5	ND	ND	41	3	2	6	15	0.25	0.02	1	218	14.02	21	0.01	5	0.09	0.01	0.01	1	1
	9E62	9	16	49	61	0.8	12	2	1442	3.53	11	5	ND	ND	281	4	2	10	33	9.34	0.05	10	60	2.99	40	0.01	5	0.36	0.01	0.02	4	1
	9E63	7	27	38	48	0.7	12	5	931	3.56	128	5	ND	ND	354	4	2	11	53	10.63	0.09	9	24	3.84	39	0.01	5	0.41	0.01	0.02	4	2
	9D104	2	22	35	57	0.6	13	1	238	2.00	20	5	ND	ND	78	1	2	2	34	1.33	0.10	8	30	0.52	108	0.06	25	0.95	0.06	0.01	2	1
	9D9X	64	119	36715	612	92.7	5	1	44	1.56	11	5	ND	10	78	18	68	2	4	0.15	0.01	1	154	0.01	10	0.01	628	0.04	0.04	0.02	1	1
	STD5	22	811	518	573	17.2	220	272	829	3.37	356	5	58	719	798	169	857	453	131	0.37	2.55	1141	83	0.47	274	0.14	583	1.66	0.03	0.01	279	45

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CERTIFICATE OF ANALYSIS

TO : NORTHERN ANALYTICAL LAB LTD.
105 COPPER RD.
WHITEHORSE YUKON

PROJECT : 29152
TYPE OF ANALYSIS : ASSAY

CERTIFICATE # : 891019B
INVOICE # : OCT 89
DATE ENTERED : 89/10/26
FILE NAME : F1019B
PAGE # : 1

PRE FIX	SAMPLE NAME	ppb Au
	10.0	10
	30.0	140
	41.0	210
	52.0	5
	-13.0	5
	-21.0	10
	-30.0	5
	9F151X	5
	9F155X	550
	9F156X	3800
	9F1511	650
	9F1512	340
	9F1516	200
	9F1517	10
	9K21	60
	9K22	5

CERTIFIED BY : Helen Ho

CAVENDISH ANALYTICAL LABORATORY LTD.
2225 S. Springer Ave., Burnaby,
British Columbia, Can. V5B 3H1
Ph:(604)299-2560 Fax:299-6252

CERTIFICATE OF ANALYSIS

TO : NORTHERN ANALYTICAL LAB LTD.
105 COPPER RD.
WHITEHORSE YUKON

PROJECT : 29157
TYPE OF ANALYSIS : ASSAY

CERTIFICATE # : 891019B1
INVOICE # : OCT 89
DATE ENTERED : 89/10/26
FILE NAME : F1019B1
PAGE # : 1

PRE FIX	SAMPLE NAME	ppb Au
	9D91	5
	9D92	5
	9D93	10
	9D94	5
	9D95	20
	9D96	5
	9D97	5
	9D98	5
	9G124	10
	9G125	5
	9G126	5
	9G142	10
	9G143	5
	9G144	5
	9G145	3400
	9G146	20
	9G147	5
	9G148	5
	9G149	10
	9G1410	5
	9G1412	10
	9G1413	5
	9G1414	5
	9G1415	10
	9G1416	5
	9G1417	5
	9G1418	10
	9G1421	5
	9G1422	10
	9G1423	5
	9G148C	5070
	9G14G	10
	9G14T	5
	9G147-2	5
	?	5

CERTIFIED BY : Helen Ho

Northern Analytical Laboratories ltd.

October 31, 1989
Ron Berdahl
Box 5664
Whitehorse, Yukon
Y1A 5L5

ASSAY CERTIFICATE FOR SAMPLES PROVIDED

WORK ORDER # 34503

Sample	ppb Au
9D912	77
9D913	62
9D914	105
9D915	35
9D916	43
9D917	56
9E61	33
9E62	65
9E63	25
C1	<10
C2	32
C3	22
C4	40
C4A	<10
C4B	22
C5	<10
C6	<10
C7	<10
9F1513	34
9F158	108
9F1518	43
9F1510	94
9F1515	<10
9F152	23
9D9X	121
9D104	24

Au -- 15g Fire Assay/AAS

Applied Science Technologists and Technicians of British Columbia
6992
GERALD F. HAYES
A.Sc.T.

105 Copper Road, Whitehorse, YT, Y1A 2Z7 Ph: (403) 668-4968 Fax: (403) 668-4890

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North Vancouver, B.C.
V7P 2R5
(604) 985-0681 Telex 04-352667

BONDAR-CLEGG

Certificate of Analysis

REPORT: V89-01944.6 (COMPLETE)

REFERENCE INFO:

CLIENT: MR. RON BERDAHL
PROJECT: NONE GIVEN

SUBMITTED BY: R. BERDAHL
DATE PRINTED: 26-JUL-89

ORDER	ELEMENT		NUMBER OF ANALYSES	LOWER DETECTION LIMIT	EXTRACTION	METHOD
1	Cu	Copper	2	0.01 PCT		Atomic Absorption

SAMPLE TYPES	NUMBER	SIZE FRACTIONS	NUMBER	SAMPLE PREPARATIONS	NUMBER
R ROCK OR BED ROCK	2	2 -150	2	AS RECEIVED, NO SP	2

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Certificate of Analysis

REPORT: V89-01944.6

DATE PRINTED: 26-JUL-89

PROJECT: NONE GIVEN PAGE 1

SAMPLE NUMBER	ELEMENT UNITS	Cu PCT
R2 9F154 X		15.10
R2 9F156 X		3.50

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Geochemical Lab Report

REPORT: VB9-01944.0 (COMPLETE)

No Copper

REFERENCE INFO:

CLIENT: MR. RON BERDAHL
PROJECT: NONE GIVEN

SUBMITTED BY: R. BERDAHL
DATE PRINTED: 28-JUN-89

ORDER		ELEMENT	NUMBER OF ANALYSES	LOWER DETECTION LIMIT	EXTRACTION	METHOD
1	AU	GOLD	16	5 PPB	NOT APPLICABLE	INST. NEUTRON ACTIV.
2	AG	SILVER	16	5 PPM	NOT APPLICABLE	INST. NEUTRON ACTIV.
3	AS	ARSENIC	16	1 PPM	NOT APPLICABLE	INST. NEUTRON ACTIV.
4	BA	BARIUM	16	100 PPM	NOT APPLICABLE	INST. NEUTRON ACTIV.
5	BR	BROMINE	16	1 PPM	NOT APPLICABLE	INST. NEUTRON ACTIV.
6	CD	CADMIUM	16	10 PPM	NOT APPLICABLE	INST. NEUTRON ACTIV.
7	CE	CERIUM	16	10 PPM	NOT APPLICABLE	INST. NEUTRON ACTIV.
8	CO	COBALT	16	10 PPM	NOT APPLICABLE	INST. NEUTRON ACTIV.
9	CR	CHROMIUM	16	50 PPM	NOT APPLICABLE	INST. NEUTRON ACTIV.
10	CS	CESIUM	16	1 PPM	NOT APPLICABLE	INST. NEUTRON ACTIV.
11	EU	EUROPIUM	16	2 PPM	NOT APPLICABLE	INST. NEUTRON ACTIV.
12	FE	IRON	16	0.5 PCT	NOT APPLICABLE	INST. NEUTRON ACTIV.
13	HF	HAFNIUM	16	2 PPM	NOT APPLICABLE	INST. NEUTRON ACTIV.
14	IR	IRIDIUM	16	100 PPB	NOT APPLICABLE	INST. NEUTRON ACTIV.
15	LA	LANTHANUM	16	5 PPM	NOT APPLICABLE	INST. NEUTRON ACTIV.
16	LU	LUTETIUM	16	0.5 PPM	NOT APPLICABLE	INST. NEUTRON ACTIV.
17	MO	MOLYBDENUM	16	2 PPM	NOT APPLICABLE	INST. NEUTRON ACTIV.
18	NA	SODIUM	16	0.05 PCT	NOT APPLICABLE	INST. NEUTRON ACTIV.
19	NI	NICKEL	16	50 PPM	NOT APPLICABLE	INST. NEUTRON ACTIV.
20	RB	RUBIDIUM	16	10 PPM	NOT APPLICABLE	INST. NEUTRON ACTIV.
21	SB	ANTIMONY	16	0.2 PPM	NOT APPLICABLE	INST. NEUTRON ACTIV.
22	SC	SCANDIUM	16	0.5 PPM	NOT APPLICABLE	INST. NEUTRON ACTIV.
23	SE	SELENIUM	16	10 PPM	NOT APPLICABLE	INST. NEUTRON ACTIV.
24	SM	SAMARIUM	16	0.1 PPM	NOT APPLICABLE	INST. NEUTRON ACTIV.
25	SN	TIN	16	200 PPM	NOT APPLICABLE	INST. NEUTRON ACTIV.
26	TA	TANTALUM	16	1 PPM	NOT APPLICABLE	INST. NEUTRON ACTIV.
27	TB	TERBIUM	16	1 PPM	NOT APPLICABLE	INST. NEUTRON ACTIV.
28	TE	TELLURIUM	16	20 PPM	NOT APPLICABLE	INST. NEUTRON ACTIV.
29	TH	THORIUM	16	0.5 PPM	NOT APPLICABLE	INST. NEUTRON ACTIV.
30	U	URANIUM	16	0.5 PPM	NOT APPLICABLE	INST. NEUTRON ACTIV.
31	W	TUNGSTEN	16	2 PPM	NOT APPLICABLE	INST. NEUTRON ACTIV.
32	YB	YTTERBIUM	16	5 PPM	NOT APPLICABLE	INST. NEUTRON ACTIV.
33	ZN	ZINC	16	200 PPM	NOT APPLICABLE	INST. NEUTRON ACTIV.
34	ZR	ZIRCONIUM	16	500 PPM	NOT APPLICABLE	INST. NEUTRON ACTIV.

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Geochemical Lab Report

REPORT: V89-01794.0 (COMPLETE)

REFERENCE INFO:

CLIENT: MR. RON BERDAHL
PROJECT: NONE GIVEN

SUBMITTED BY: R. BERDAHL
DATE PRINTED: 28-JUN-89

SAMPLE TYPES	NUMBER
S SOILS	7
R ROCK OR BED ROCK	9

SIZE FRACTIONS	NUMBER
1 -80	7
2 -150	9

SAMPLE PREPARATIONS	NUMBER
DRY, SIEVE -80	7
CRUSH,PULVERIZE -150	9
BATCH SURCHARGE	16

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Geochemical Lab Report

REPORT: VG9-01944.0

DATE PRINTED: 28-JUN-89
PROJECT: NONE GIVEN

SAMPLE NUMBER	ELEMENT UNITS	AU PPB	AG PPM	AS PPM	BA PPM	BR PPM	CD PPM	CE PPM	CO PPM	CR PPM	CS PPM	EU PPM	FE PCT
S1 AZ6-1 30		33	<5	10	450	4	<10	21	32	96	2	<2	4.9
S1 AZ6 10 0		9	<5	9	470	3	<10	22	27	110	2	<2	4.6
S1 AZ6 20 0		7	<5	14	500	3	<10	24	33	130	2	<2	5.8
S1 AZ6 55-4		11	<5	12	370	5	<10	23	30	98	2	<2	4.7
S1 SS6 #1		<5	<5	31	540	2	<10	27	29	150	2	<2	5.7
S1 SS6-#2		7	<5	17	480	5	<10	18	31	160	1	<2	5.9
S1 SS6 #3		6	<5	16	1200	<1	<10	30	11	60	2	<2	2.5
R2 D10-1		10	<5	38	<100	<1	<10	<10	<10	<50	4	<2	<0.5
R2 D10-2		<5	<5	61	620	<1	<10	26	11	150	<1	<2	3.5
R2 D10-3		11	<5	63	1800	<1	<10	34	15	110	1	<2	3.6
R2 9F152		10	<5	69	390	3	<10	<10	72	250	7	<2	11.0
R2 9F153		180	<5	42	<100	<1	<10	<10	39	94	<1	<2	16.0
R2 9F154		1580	160	17	<100	<1	<10	<10	450	<50	<1	<2	29.0
R2 9F155		360	7	18	<100	<1	<10	<10	12	100	<1	<2	17.0
R2 9F156		6560	31	18	<100	<1	<10	<10	1090	110	<1	<2	26.0
R2 8F15-1		8	<5	44	<100	<1	<10	<10	50	240	<1	<2	11.0

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Geochemical Lab Report

REPORT: VG9-01744.0

DATE PRINTED: 28-JUN-89
PROJECT: NONE GIVEN PAGE 1B

SAMPLE NUMBER	ELEMENT UNITS	HF PPM	IR PPB	LA PPM	LU PPM	MO PPM	NA PCT	NI PPM	RB PPM	SB PPM	SC PPM	SE PPM	SN PPM
S1 AZ6-1 10		3	<100	10	<0.5	<2	1.60	<50	39	0.8	15.0	<10	2.9
S1 AZ6 10 0		3	<100	12	<0.5	<2	1.90	<50	42	0.8	17.0	<10	2.5
S1 AZ6 20 0		3	<100	12	<0.5	<2	2.00	66	42	0.9	20.0	<10	2.9
S1 AZ6 SS-4		2	<100	10	<0.5	<2	1.60	<50	31	0.9	17.0	<10	2.4
S1 SSS #1		3	<100	14	<0.5	<2	2.40	52	31	0.7	24.0	<10	3.5
S1 SSS #2		2	<100	13	<0.5	<2	1.60	91	29	1.7	24.0	<10	3.1
S1 SSS #3		5	<100	17	<0.5	<2	2.30	<50	68	1.8	10.0	<10	3.2
R2 D10-1		2	<100	<5	<0.5	<2	3.00	<50	290	0.5	1.1	<10	2.0
R2 D10-2		2	<100	15	<0.5	<2	2.60	<50	74	1.9	13.0	<10	2.8
R2 D10-3		3	<100	20	<0.5	6	2.70	<50	99	2.1	12.0	<10	4.0
R2 9F152		<2	<100	<5	<0.5	<2	1.90	140	14	0.9	34.0	<10	2.2
R2 9F153		<2	<100	<5	<0.5	<2	<0.05	92	<10	0.3	1.1	<10	<0.2
R2 9F154		<2	<100	<5	<0.5	2	0.06	470	<10	2.6	0.6	67	0.3
R2 9F155		<2	<100	<5	<0.5	<2	<0.05	<50	<10	0.5	2.0	<10	1.3
R2 9F156		<2	<100	<5	<0.5	3	<0.05	440	<23	0.5	1.2	13	0.4
R2 9F15-1		<2	<100	<5	<0.5	<2	2.50	150	14	<0.2	31.0	<10	2.5

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Geochemical Lab Report

REPORT: VA89-01944.0

DATE PRINTED: 28-JUN-89
PROJECT: NONE GIVEN

SAMPLE NUMBER	ELEMENT UNITS	SN PPM	TA PPM	TB PPM	TE PPM	TH PPM	U PPM	W PPM	YB PPM	ZN PPM	ZR PPM
S1 AZ5-1 10		<200	<1	<1	<20	2.8	2.2	<2	<5	<200	<500
S1 AZ5 10 0		<200	<1	<1	<20	2.9	1.7	<2	<5	<200	<500
S1 AZ5 20 0		<200	<1	<1	<20	3.1	1.6	<2	<5	<200	<500
S1 AZ5 55-4		<200	<1	<1	<20	2.5	1.6	<2	<5	<200	<500
S1 BGG #1		<200	<1	<1	<20	2.5	1.5	<2	<5	<200	<500
S1 BGG #2		<200	<1	<1	<20	1.9	1.6	<2	<5	260	<500
S1 BGG #3		<200	<1	<1	<20	5.0	2.2	<2	<5	<200	<500
R2 D10-1		<200	4	<1	<20	5.6	3.5	<2	<5	<200	<500
R2 D10-2		<200	<1	<1	<20	4.7	2.3	2	<5	230	<500
R2 D10-3		<200	1	<1	<20	8.6	3.8	3	<5	250	<500
R2 9F152		<200	<1	<1	<20	<0.5	<0.5	<2	<5	480	<500
R2 9F153		<200	<1	<1	<20	<0.5	4.8	12	<5	<200	<500
R2 9D154		<200	<1	<1	<20	<0.5	<0.5	<2	<5	270	<500
R2 9F155		<200	<1	<1	<20	<0.5	12.0	13	<5	<200	<500
R2 9F156		<200	<1	<1	<20	<0.5	1.2	8	<5	<200	<500
R2 D9415-1		<200	<1	<1	<20	<0.5	<0.5	<2	<5	310	<500

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A DIVISION OF INCHCAPE INSPECTION & TESTING SERVICES

Geochemical Lab Report

REPORT: V89-03540.0 (COMPLETE)

REFERENCE INFO:

CLIENT: MR. RON BERDAHL
PROJECT: NONE GIVEN

SUBMITTED BY: R. BERDAHL
DATE PRINTED: 25-JUL-89

ORDER		ELEMENT	NUMBER OF ANALYSES	LOWER DETECTION LIMIT	EXTRACTION	METHOD
1	Au	Gold	34	5 PPB	NOT APPLICABLE	Inst. Neutron Activ.
2	Ag	Silver	34	5 PPM	NOT APPLICABLE	Inst. Neutron Activ.
3	As	Arsenic	34	1 PPM	NOT APPLICABLE	Inst. Neutron Activ.
4	Ba	Barium	34	100 PPM	NOT APPLICABLE	Inst. Neutron Activ.
5	Br	Bromine	34	1 PPM	NOT APPLICABLE	Inst. Neutron Activ.
6	Cd	Cadmium	34	10 PPM	NOT APPLICABLE	Inst. Neutron Activ.
7	Ce	Cerium	34	10 PPM	NOT APPLICABLE	Inst. Neutron Activ.
8	Co	Cobalt	34	10 PPM	NOT APPLICABLE	Inst. Neutron Activ.
9	Cr	Chromium	34	50 PPM	NOT APPLICABLE	Inst. Neutron Activ.
10	Cs	Cesium	34	1 PPM	NOT APPLICABLE	Inst. Neutron Activ.
11	Eu	Europium	34	2 PPM	NOT APPLICABLE	Inst. Neutron Activ.
12	Fe	Iron	34	0.5 PCT	NOT APPLICABLE	Inst. Neutron Activ.
13	Hf	Hafnium	34	2 PPM	NOT APPLICABLE	Inst. Neutron Activ.
14	Ir	Iridium	34	100 PPB	NOT APPLICABLE	Inst. Neutron Activ.
15	La	Lanthanum	34	5 PPM	NOT APPLICABLE	Inst. Neutron Activ.
16	Lu	Lutetium	34	0.5 PPM	NOT APPLICABLE	Inst. Neutron Activ.
17	Mo	Molybdenum	34	2 PPM	NOT APPLICABLE	Inst. Neutron Activ.
18	Na	Sodium	34	0.05 PCT	NOT APPLICABLE	Inst. Neutron Activ.
19	Ni	Nickel	34	50 PPM	NOT APPLICABLE	Inst. Neutron Activ.
20	Rb	Rubidium	34	10 PPM	NOT APPLICABLE	Inst. Neutron Activ.
21	Sb	Antimony	34	0.2 PPM	NOT APPLICABLE	Inst. Neutron Activ.
22	Sc	Scandium	34	0.5 PPM	NOT APPLICABLE	Inst. Neutron Activ.
23	Se	Selenium	34	10 PPM	NOT APPLICABLE	Inst. Neutron Activ.
24	Sm	Samarium	34	0.1 PPM	NOT APPLICABLE	Inst. Neutron Activ.
25	Sn	Tin	34	200 PPM	NOT APPLICABLE	Inst. Neutron Activ.
26	Ta	Tantalum	34	1 PPM	NOT APPLICABLE	Inst. Neutron Activ.
27	Tb	Terbium	34	1 PPM	NOT APPLICABLE	Inst. Neutron Activ.
28	Te	Tellurium	34	20 PPM	NOT APPLICABLE	Inst. Neutron Activ.
29	Th	Thorium	34	0.5 PPM	NOT APPLICABLE	Inst. Neutron Activ.
30	U	Uranium	34	0.5 PPM	NOT APPLICABLE	Inst. Neutron Activ.
31	W	Tungsten	34	2 PPM	NOT APPLICABLE	Inst. Neutron Activ.
32	Yb	Ytterbium	34	5 PPM	NOT APPLICABLE	Inst. Neutron Activ.
33	Zn	Zinc	34	200 PPM	NOT APPLICABLE	Inst. Neutron Activ.
34	Zr	Zirconium	34	500 PPM	NOT APPLICABLE	Inst. Neutron Activ.

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A DIVISION OF INCHCAPE INSPECTION & TESTING SERVICES

Geochemical Lab Report

REPORT: V89-03540.0 (COMPLETE)

REFERENCE INFO:

CLIENT: MR. RON BERDAHL
PROJECT: NONE GIVEN

SUBMITTED BY: R. BERDAHL
DATE PRINTED: 25-JUL-89

SAMPLE TYPES	NUMBER	SIZE FRACTIONS	NUMBER	SAMPLE PREPARATIONS	NUMBER
S SOILS	22	1 -80	22	DRY, SIEVE -80	22
R ROCK OR BED ROCK	12	2 -150	12	CRUSH,PULVERIZE -150	12

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A DIVISION OF INCHCAPE INSPECTION & TESTING SERVICES

Geochemical Lab Report

REPORT: V89-03540.0

DATE PRINTED: 25-JUL-89

PROJECT: NONE GIVEN PAGE 1A

SAMPLE NUMBER	ELEMENT UNITS	Au PPB	Ag PPM	As PPM	Ba PPM	Br PPM	Cd PPM	Ce PPM	Co PPM	Cr PPM	Cs PPM	Eu PPM	Fe PCT
S1 9G1		<5	<5	10	750	<1	<10	62	13	82	6	<2	3.4
S1 9G12		5	<5	13	650	2	<10	42	15	100	3	<2	3.3
S1 9G13		<5	<5	7	630	<1	<10	76	14	170	1	<2	3.4
S1 9G14		<5	<5	7	710	<1	<10	34	<10	120	1	<2	2.2
S1 9G15		<5	<5	14	630	<1	<10	43	18	140	2	<2	3.6
S1 9G16		<5	<5	14	770	4	<10	32	19	120	3	<2	4.1
S1 9G17		<5	<5	26	720	2	<10	49	17	120	2	<2	3.7
S1 9G18		7	<5	11	600	<1	<10	76	20	170	3	<2	4.3
S1 9G19		7	<5	11	690	<1	<10	55	18	140	3	<2	4.0
S1 9G21		<5	<5	361	680	2	<10	33	31	420	2	<2	15.0
S1 9G23		9	<5	12	<100	1	<10	<10	220	4200	1	<2	9.0
S1 9G110		<5	<5	15	640	<1	<10	64	19	150	4	<2	4.1
S1 9G111		<5	<5	14	680	1	<10	69	18	130	4	<2	4.2
S1 9G112		<5	<5	34	630	2	<10	50	18	120	4	<2	4.8
S1 9G113		<5	<5	16	610	<1	<10	41	13	140	2	<2	3.6
S1 9G118		13	<5	15	530	11	<10	53	16	76	2	<2	3.6
S1 9G119		<5	<5	7	520	7	<10	51	16	75	2	<2	3.7
S1 9G211		7	<5	44	2100	<1	<10	34	31	220	3	<2	5.3
S1 9G212		<5	<5	40	230	<1	<10	37	13	52	3	<2	1.5
S1 9G214		<5	<5	68	470	<1	<10	21	30	570	3	<2	3.2
S1 9G215		<5	<5	83	880	<1	<10	32	29	200	2	<2	5.1
S1 9G218		5	<5	16	570	<1	<10	28	29	240	2	<2	6.1
R2 9B161		<5	<5	2	<100	<1	<10	<10	61	270	<1	<2	11.0
R2 9G22		<5	<5	166	<100	2	<10	<10	80	1900	<1	<2	5.8
R2 9G24		<5	<5	6	<100	2	<10	<10	150	5400	<1	<2	9.5
R2 9G25		<5	<5	14	<100	3	<10	<10	160	5580	<1	<2	10.0
R2 9G26		<5	<5	3	<100	3	<10	<10	150	4800	<1	<2	10.0
R2 9G114		<5	<5	16	150	<1	<10	12	51	400	<1	<2	8.9
R2 9G115		<5	<5	14	<100	<1	<10	<10	69	340	<1	<2	7.0
R2 9G116		<5	<5	25	<100	<1	<10	<10	<10	160	6	<2	<0.5
R2 9G210		74	<5	17	<100	<1	<10	<10	150	3700	<1	<2	12.0
R2 9G213		15	<5	42	150	<1	<10	16	33	150	2	<2	6.7
R2 9G216		<5	<5	36	430	<1	<10	<10	<10	130	<1	<2	6.3
R2 9G217		<5	<5	28	130	<1	<10	<10	<10	210	<1	<2	6.2

...ar-Clegg & Company Ltd.
...0 Pemberton Ave.
North Vancouver, B.C.
V7P 2R5
(604) 985-0681 Telex 04-352667

BONDAR-CLEGG

A DIVISION OF INCHCAPE INSPECTION & TESTING SERVICES

Geochemical Lab Report

DATE PRINTED: 25-JUL-89

REPORT: V89-03540.0

PROJECT: NONE GIVEN PAGE 1B

SAMPLE NUMBER	ELEMENT UNITS	Hf PPM	Ir PPB	La PPM	Lu PPM	Mo PPM	Na PCT	Ni PPM	Rb PPM	Sb PPM	Sc PPM	Se PPM	Sm PPM
S1 9G1		12	<100	34	<0.5	<2	1.60	<50	97	0.8	12.0	<10	7.8
S1 9G12		4	<100	23	<0.5	<2	1.80	<50	53	0.8	14.0	<10	5.1
S1 9G13		2	<100	44	<0.5	<2	1.90	<50	41	0.5	13.0	<10	6.4
S1 9G14		<2	<100	25	<0.5	<2	2.10	<50	39	0.5	10.0	<10	4.0
S1 9G15		4	<100	27	<0.5	<2	2.10	55	45	0.7	15.0	<10	5.5
S1 9G16		4	<100	22	<0.5	<2	1.60	<50	60	1.0	16.0	<10	4.8
S1 9G17		5	<100	27	<0.5	<2	2.00	<50	64	0.8	15.0	<10	5.5
S1 9G18		10	<100	39	<0.5	<2	1.90	66	52	0.7	16.0	<10	7.8
S1 9G19		7	<100	33	<0.5	<2	2.00	<50	53	0.7	16.0	<10	6.7
S1 9G21		3	<100	19	<0.5	4	1.40	170	20	4.4	19.0	<10	4.6
S1 9G23		<2	<100	<5	<0.5	<2	0.21	2110	<10	3.5	11.0	<10	0.8
S1 9G110		10	<100	40	<0.5	<2	2.00	50	71	0.7	17.0	<10	7.3
S1 9G111		8	<100	37	<0.5	<2	2.00	<50	62	0.7	17.0	<10	7.0
S1 9G112		6	<100	26	<0.5	<2	1.70	<50	51	0.8	18.0	<10	5.6
S1 9G113		5	<100	24	<0.5	<2	2.10	<50	50	0.7	16.0	<10	5.1
S1 9G118		3	<100	40	<0.5	<2	1.10	<50	42	1.1	14.0	<10	8.6
S1 9G119		5	<100	27	<0.5	<2	1.80	<50	47	0.7	15.0	<10	5.7
S1 9G211		3	<100	20	<0.5	4	1.30	100	46	7.5	21.0	<10	5.0
S1 9G212		3	<100	25	<0.5	4	0.57	<50	34	44.9	13.0	<10	3.3
S1 9G214		<2	<100	10	<0.5	5	0.36	190	27	39.9	17.0	<10	2.8
S1 9G215		3	<100	20	<0.5	4	1.70	92	39	19.0	19.0	<10	4.2
S1 9G218		2	<100	13	<0.5	<2	1.40	93	43	3.8	28.0	<10	3.8
R2 9B161		<2	<100	<5	<0.5	<2	0.51	<50	<10	0.2	110.0	<10	3.0
R2 9G22		<2	<100	<5	<0.5	<2	0.09	820	<10	55.3	15.0	<10	0.7
R2 9G24		<2	<100	<5	<0.5	<2	0.25	2270	<10	2.8	11.0	<10	0.6
R2 9G25		<2	<100	<5	<0.5	<2	0.24	2310	<10	2.8	11.0	<10	0.6
R2 9G26		<2	<100	<5	<0.5	<2	0.23	2310	<10	2.5	11.0	<10	0.5
R2 9G114		2	<100	7	0.6	<2	0.52	130	30	2.4	38.0	<10	4.6
R2 9G115		<2	<100	<5	<0.5	<2	0.43	<50	<10	0.3	80.9	<10	2.1
R2 9G116		<2	<100	<5	<0.5	<2	3.30	<50	200	0.2	2.1	<10	0.5
R2 9G210		<2	<100	<5	<0.5	<2	0.23	1700	<10	0.5	9.4	<10	0.5
R2 9G213		2	<100	9	<0.5	<2	1.10	75	44	19.0	26.0	<10	3.6
R2 9G216		2	<100	14	<0.5	<2	3.00	<50	<10	5.2	8.3	<10	3.2
R2 9G217		<2	<100	<5	<0.5	<2	<0.05	<50	<10	36.2	0.5	<10	0.2

Bondar-Clegg & Company Ltd.
130 Pemberton Ave.
North Vancouver, B.C.
V7P 2R5
(604) 985-0681 Telex 04-352667

BONDAR-CLEGG

Geochemical Lab Report

A DIVISION OF INCHCAPE INSPECTION & TESTING SERVICES

DATE PRINTED: 25-JUL-89

REPORT: V89-03540.0

PROJECT: NONE GIVEN PAGE 1C

SAMPLE NUMBER	ELEMENT UNITS	Sn PPM	Ta PPM	Tb PPM	Te PPM	Th PPM	U PPM	W PPM	Yb PPM	Zn PPM	Zr PPM
S1 9G1		<200	1	1	<20	12.0	6.0	<2	<5	<200	730
S1 9G12		<200	1	1	<20	5.1	3.5	<2	<5	<200	<500
S1 9G13		<200	1	<1	<20	13.0	1.4	<2	<5	<200	<500
S1 9G14		<200	<1	<1	<20	7.6	1.3	<2	<5	<200	<500
S1 9G15		<200	<1	<1	<20	7.0	2.1	<2	<5	<200	<500
S1 9G16		<200	<1	<1	<20	5.8	3.5	<2	<5	<200	<500
S1 9G17		<200	1	<1	<20	7.3	2.9	<2	<5	<200	<500
S1 9G18		<200	1	1	<20	11.0	4.3	<2	<5	<200	<500
S1 9G19		<200	1	<1	<20	9.2	3.7	<2	<5	<200	610
S1 9G21		<200	<1	<1	<20	2.6	1.5	<2	<5	<200	<500
S1 9G23		<200	<1	<1	<20	<0.5	<0.5	<2	<5	<200	<500
S1 9G110		<200	1	<1	<20	12.0	4.5	2	<5	<200	<500
S1 9G111		<200	<1	<1	<20	11.0	4.4	<2	<5	<200	<500
S1 9G112		<200	<1	<1	<20	7.2	7.2	<2	<5	<200	<500
S1 9G113		<200	1	<1	<20	5.3	3.2	<2	<5	<200	<500
S1 9G118		<200	<1	1	<20	5.7	9.3	<2	<5	<200	<500
S1 9G119		<200	<1	1	<20	5.3	18.0	<2	<5	<200	<500
S1 9G211		<200	<1	<1	<20	3.6	3.1	<2	<5	<200	<500
S1 9G212		<200	1	<1	<20	4.9	2.4	<2	<5	<200	<500
S1 9G214		<200	<1	<1	<20	1.4	3.9	<2	<5	<200	<500
S1 9G215		<200	<1	<1	<20	2.9	2.2	<2	<5	<200	<500
S1 9G218		<200	<1	<1	<20	2.4	1.6	<2	<5	<200	<500
R2 9B161		<200	<1	<1	<20	<0.5	<0.5	<2	<5	<200	<500
R2 9G22		<200	<1	<1	<20	<0.5	<0.5	<2	<5	<200	<500
R2 9G24		<200	<1	<1	<20	<0.5	<0.5	<2	<5	<200	<500
R2 9G25		<200	<1	<1	<20	<0.5	<0.5	<2	<5	<200	<500
R2 9G26		<200	<1	<1	<20	<0.5	<0.5	<2	<5	<200	<500
R2 9G114		<200	<1	1	<20	<0.5	0.5	<2	5	<200	<500
R2 9G115		<200	<1	<1	<20	<0.5	<0.5	<2	<5	<200	<500
R2 9G116		<200	3	<1	<20	0.9	2.3	<2	<5	<200	<500
R2 9G210		<200	<1	<1	<20	<0.5	<0.5	<2	<5	<200	<500
R2 9G213		<200	<1	<1	<20	1.5	0.8	<2	<5	<200	<500
R2 9G216		<200	<1	<1	<20	2.4	0.6	<2	<5	<200	<500
R2 9G217		<200	<1	<1	<20	<0.5	<0.5	<2	<5	<200	<500

CANADA MAP OFFICE
200 RANGE ROAD
WHITEHORSE, YUKON

RECEIPT

№ 018724

DATE	NATURE AND NUMBER OF REMITTANCE	INVOICE NO.	LOCATION
Sept. 6/84	Cash		

RECEIVED THE SUM OF Four /100 DOLLARS $ 4.00

FROM

FOR Map Overprint.

B. Phillips
AUTHORIZED OFFICER

CANADA MAP OFFICE
200 RANGE ROAD
WHITEHORSE, YUKON

RECEIPT

№ 013502

DATE	NATURE AND NUMBER OF REMITTANCE	INVOICE NO.	LOCATION
Aug 11	cash		

RECEIVED THE SUM OF eight xx /100 DOLLARS $ 8.00

FROM

FOR 2x Geology Maps

AUTHORIZED OFFICER

CANADA MAP OFFICE
200 RANGE ROAD
WHITEHORSE, YUKON

RECEIPT

Nº 013503

DATE	NATURE AND NUMBER OF REMITTANCE	INVOICE NO.	LOCATION
Aug 11	cheque		

RECEIVED THE SUM OF cent XX/100 DOLLARS $ 900

FROM

FOR Government of Canada

PAP
EIP

AUTHORIZED OFFICER

COUNTER SALES

Glacier Air Tours
(A Division of Ostashek Outfitting)
Box 4146
Whitehorse, Yukon Y1A 3S6
Phone: (403) 668-7323
Telex: 036-8-484

DATE July 29 1989

NAME RON BENOAHL

ADDRESS WHITE HORSE, YUKON

POSTAL CODE

QTY.	DESCRIPTION	PRICE	AMOUNT
	PERSON TOSHINGORMANN		
	LAKE / RETURN		450 00
	PAID BY CHEQUE		
	Terry		
	PAP		
	APPROVED FOR PAYMENT		
	TAX		
	TOTAL		

RECEIVED ABOVE IN GOOD ORDER

BY

YOUR ORDER NO.	CLERK	CASH	C.O.D.	CHARGE	ON ACCT.	MDSE RET'D.	PAID OUT

07599

Glacier Air Tours

(Ostashek Outfitting - 668-7323)

One way Flight to ~~Tash~~ Tchawsahlmon Lake 8/17/89 $300.00

from Burwash Landing

Dave paid by leaving check (cheque) #222 @ pilots truck (he was out) as I hitch hiked back to my vehicle in September - asked him to mail receipt but... will contact Isha Ostashek if he's around when I get original to you.

APPROVED FOR PAYMENT
MAR 16 1990
PAP EIP
RECEIVED
MINES

Ron Berdahl

JIM-GEM®
Forestry Suppliers, Inc.
205 West Rankin Street
Post Office Box 8397
Jackson, Mississippi 39204-0397
Telephone 601-354-3565 • Telex 585 330 FORSUP INC JKS
FAX 601-355-5126

GUARANTEE OF SATISFACTION

Forestry Suppliers, Inc. guarantees every item sold to be as represented. YOU MUST BE COMPLETELY SATISFIED. If for any reason the merchandise you receive is not what you want or does not suit your purposes, please write or call us immediately and explain the reason for your dissatisfaction. Be sure to specify the order number found on the packing list. We assure you a quick response and settlement to your satisfaction.

PLEASE NOTE

WHEN DAMAGE OR LOSS OCCURS ON FREIGHT OR EXPRESS SHIPMENTS, MAKE CLAIM AGAINST CARRIER ON PARCEL POST OR UPS SHIPMENTS. REPORT LOSS OR DAMAGE TO US.

INVOICE

TERMS FOR PAYMENT OF OPEN-ACCOUNT-CHARGE INVOICES ARE: NET 30 DAYS FROM DATE OF INVOICE.

FEDERAL I.D. NO. 64-0321411

CUSTOMER ACCOUNT NUMBER	INVOICE NUMBER	INVOICE DATE	TERMS: NET 30 UNLESS OTHERWISE SHOWN	YOUR ORDER NUMBER	ORDER DATE
500	756500-00	7/31/89	MASTERCHARGE	BERDAHL, RON	3/29/89

SOLD TO
RON BERDAHL
BOX 139
SKAGWAY AK 99840

SHIP TO
RON BERDAHL
BOX 139
SKAGWAY AK 99840

SHIPPED VIA: PARCEL POST

DATE SHIPPED: 7/28/89

SPECIAL INSTRUCTIONS:

STOCK NUMBER	QUANTITY ORDERED	QUANTITY SHIPPED	QUANTITY BACK ORDERED	UNIT	DESCRIPTION	UNIT PRICE	TOTAL PRICE
33347	1	1		EA	HOE/PIK, ALL STEEL	33.65	33.65
33325	1	1		EA	PICK, LONG HANDLE	25.95	25.95
33352	1	1		EA	CHISELS, ROCK, 8 IN	8.95	8.95
		AMOUNT APPLIED TO THIS INVOICE FROM YOUR MASTER CHARGE					80.52CR

APPROVED FOR PAYMENT
PAP
MAR 16 1990 EIP
RECEIVED
MINES

$95.92 CDN

PLEASE RETURN WITH REMITTANCE

TAXABLE TOTAL	TAX RATE	TAX DIST.	TAX AMOUNT		SHIPPING CHGS.	SUB TOTAL	PAYMENT RECEIVED WITH ORDER	INVOICE TOTAL
.00	.000		.00		11.97	80.52	80.52	.00

BACK ORDERED items are temporarily out of stock and will be shipped as soon as received at F.S. Inc. It is not necessary to reorder.

DIRECT indicates items being shipped direct from the manufacturer.

PLEASE PAY THIS AMOUNT

SHOW OUR INVOICE NUMBER ON YOUR REMITTANCE

"What you need, when you need it", for more than 35 years.

TRIPLICATE REMITTANCE ADVICE

Energy, Mines and Resources Canada | Énergie, Mines et Ressources Canada

TEL.: (613) 995-4560 | TELEX: 053-4328 | FAX: (613) 995-4568

NATIONAL AIR PHOTO LIBRARY-PHOTOTHÈQUE NATIONALE DE L'AIR
615 BOOTH ST. OTTAWA, ONTARIO, CANADA
615, RUE BOOTH K1A 0E9

FROM / DE

NATIONAL AIR PHOTO LIBRARY
PHOTOTHÈQUE NATIONALE DE L'AIR
ENERGY, MINES AND RESOURCES CANADA
ÉNERGIE, MINES ET RESSOURCES CANADA
OTTAWA, CANADA K1A 0E9

SPECIAL INSTRUCTIONS
INSTRUCTIONS SPÉCIALES

TO: / À :

NPL 000709

RUN BERDAHL
POX [illegible]4
WHITEHORSE, YUK
Y1A 5L5

PRODUCT GROUP NO. / Nº GROUPE DU PRODUIT	ROLL NO. / Nº ROULEAU	FRAMES CLICHÉS FROM / DE	FRAMES CLICHÉS TO / À	NUMBER OF EACH ITEM / NUMÉRO DE CHAQUE ARTICLE	TOTAL ARTICLES REQUIRED / TOTAL DES ARTICLES REQUIS	ODD IMPAIRS / EVEN PAIRS	EMULSION	MAGNIFICATION / GROSSISSEMENT	CORRECTION PLATES / PLAQUES COMPENSATRICES	UNIT PRICE / PRIX UNITAIRE	COST / COÛT
2701	A11450	244		1	1					$4.25	$4.25
2701	A11537	89		1	1					$4.25	$4.25
2701	A11541	93		1	1					$4.25	$4.25
2701	A15491	121	122	1	2					$4.25	$8.50

APPROVED FOR PAYMENT
MAR 1 [illegible] 1990
PAP
EIP
[illegible]VED

DATE REQUIRED / DEMANDÉ POUR LE	DATE RECEIVED / REÇU LE: 89/05/08	TECHNICIAN / TECHNICIEN	SUPERVISOR / SUPERVISEUR: C.A	SUB-TOTAL / SOUS-TOTAL	$21.25
				PRIORITY SERVICE / SERVICE DE PRIORITÉ	
NAUG. NO. / Nº SUB. UNIV.	P.O. NUMBER / Nº BON DE COMMANDE: N/A	DATE SHIPPED / EXPÉDIÉ LE		HANDLING / MANUTENTION	$4.00
				SPECIAL SHIPPING / EXPÉDITION SPÉCIALE	
CASH FOLIO NO. / Nº DE RÉF. CAISSE	TYPE OF REQUEST / GENRE DE DEMANDE: MA; CUSTOMER TYPE / GENRE DE CLIENT: GP	WAYBILL NO. / Nº L.D.V.		CREDITS / CRÉDITS	
				PROV. RETAIL SALES TAX / TAXE DE VENTE AU DÉTAIL	
TAX EXEMPTION NO. / Nº EXEMPTION DE LA TAXE: EXEMPT	ACCOUNT NO. / Nº DE COMPTE	SHIP VIA / EXPÉDIER PAR		CASH RECEIVED / ARGENT REÇU	$25.25
				TOTAL	$25.25
MAIL NO. / Nº RÉFÉRENCE: 00206334	INVOICE NO. / Nº FACTURE: NPL000709	WEIGHT / POIDS	NO. PIECES / NBRE DE COLIS	TOTAL DUE / MONTANT DÛ	
				TOTAL REFUND / REMBOURSEMENT TOTAL	

PLEASE REFER TO MAIL NO. ON ALL ENQUIRES.
PRIÈRE DE RAPPELER LE Nº DE RÉFÉRENCE SUR TOUTE DEMANDE DE RENSEIGNEMENTS.

REFUNDS FORWARDED UNDER SEPARATE COVER.
REMBOURSEMENTS ENVOYÉS SOUS PLI SÉPARÉ.

ALL SALES ARE FINAL
TOUTES LES VENTES SONT DÉFINITIVES

PACKING SLIP - COPIE D'EMBALLAGE

BONDAR-CLEGG

Bondar-Clegg & Company Ltd.
5420 Canotek Road
Ottawa, Ontario
K1J 8X5
(613) 749-2220 Telex 053-3233

MR. RON BERDAHL
BOX 5664
WHITEHORSE, Y.T.
Y1A 5L5

Invoice : V061497, Page 1

Date : 26-JUL-89

Report No: V89-03540.1
Project : NONE GIVEN
Reference:

34 Analyses of Copper	at $ 1.00	$ 34.00	
Subtotal		$ 34.00	$ 34.00
Sample Preparation			
22 Samples of DRY, SIEVE -80	at $ 0.00	$ 0.00	
12 Samples of CRUSH,PULVERIZE -150	at $ 0.00	$ 0.00	
Subtotal		$ 0.00	$ 0.00
Invoice Total:			$ 34.00 Cdn

Pd by Cheque #216

APPROVED FOR PAYMENT
MAR 16 1990 PAP EIP
RECEIVED MINES

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ACCOUNTS DUE WHEN RENDERED

BONDAR-CLEGG

Bondar-Clegg & Company Ltd.
5420 Canotek Road
Ottawa, Ontario
K1J 8X5
(613) 749-2220 Telex 053-3233

MR. RON BERDAHL
C/O BONDAR-CLEGG CO. LTD.
136 INDUSTRIAL RD.
WHITEHORSE, YUKON
Y1A 2V1

Invoice : V061520, Page 1

Date : 27-JUL-89

Report No: V89-01944.1
Project : NONE GIVEN
Reference:

7 Analyses of Copper	at $ 1.00	$ 7.00		
3 Analyses of Lead	at $ 1.00	$ 3.00		
Subtotal		$ 10.00	$	10.00
Sample Preparation				
3 Samples of DRY, SIEVE -80	at $ 0.00	$ 0.00		
7 Samples of CRUSH,PULVERIZE -150	at $ 0.00	$ 0.00		
Subtotal		$ 0.00	$	0.00
Invoice Total:			$	10.00 Cdn

Pd by
Cheque # 218

APPROVED FOR PAYMENT

MAR 16 1990 PAP EIP

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MINES

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BONDAR-CLEGG

Bondar-Clegg & Company Ltd.
5420 Canotek Road
Ottawa, Ontario
K1J 8X5
(613) 749-2220 Telex 053-3233

MR. RON BERDAHL
C/O BONDAR-CLEGG CO. LTD.
136 INDUSTRIAL RD.
WHITEHORSE, YUKON
Y1A 2V1

Invoice : V061521, Page 1

Date : 27-JUL-89

Report No: V89-01944.6
Project : NONE GIVEN
Reference:

2 Analyses of Copper	at $ 6.75	$ 13.50	
Subtotal		$ 13.50	$ 13.50
Invoice Total:			$ 13.50 Cdn

Pd By
Cheque #218

APPROVED FOR PAYMENT
MAR 16 1990
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DUES

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BONDAR-CLEGG

Bondar-Clegg & Company Ltd.
5420 Canotek Road
Ottawa, Ontario
K1J 8X5
(613) 749-2220 Telex 053-3233

MR. RON BERDAHL
C/O BONDAR-CLEGG CO. LTD.
136 INDUSTRIAL RD.
WHITEHORSE, YUKON
Y1A 2V1

Invoice : V060421, Page 1

Date : 28-JUN-89

Report No: V89-01944.0
Project : NONE GIVEN
Reference:

---

16 Analyses of GOLD + 33 INAA OPT 1 at $13.50	$ 216.00	$ 216.00

Silver	Arsenic
Gold	Barium
Bromine	Cadmium
Cerium	Cobalt
Chromium	Cesium
Europium	Iron
Hafnium	Iridium
Lanthanum	Lutetium
Molybdenum	Sodium
Nickel	Rubidium
Antimony	Scandium
Selenium	Samarium
Tin	Tantalum
Terbium	Tellurium
Thorium	Uranium
Tungsten	Ytterbium
Zinc	Zirconium

APPROVED FOR PAYMENT
MAR 16 1990 PAP EIP
RECEIVED MINES

Sample Preparation			
7 Samples of DRY, SIEVE -80	at $ 1.10	$ 7.70	
9 Samples of CRUSH,PULVERIZE -150	at $ 3.75	$ 33.75	
16 Samples of BATCH SURCHARGE	at $ 2.50	$ 40.00	
Subtotal		$ 81.45	$ 81.45

Invoice Total: $ 297.45 Cdn

Pd by cheque #203

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ACCOUNTS DUE WHEN RENDERED

Bondar-Clegg & Company Ltd.
5420 Canotek Road
Ottawa, Ontario
K1J 8X5
(613) 749-2220 Telex 053-3233

MR. RON BERDAHL
BOX 5664
WHITEHORSE, Y.T.
Y1A 5L5

Invoice : V061496, Page 1

Date : 26-JUL-89

Report No: V89-03540.0
Project : NONE GIVEN
Reference:

34 Analyses of GOLD + 33 INAA OPT 1 at $13.50		$ 459.00	$ 459.00
Silver	Arsenic		
Gold	Barium		
Bromine	Cadmium		
Cerium	Cobalt		
Chromium	Cesium		
Europium	Iron		
Hafnium	Iridium		
Lanthanum	Lutetium		
Molybdenum	Sodium		
Nickel	Rubidium		
Antimony	Scandium		
Selenium	Samarium		
Tin	Tantalum		
Terbium	Tellurium		
Thorium	Uranium		
Tungsten	Ytterbium		
Zinc	Zirconium		
Sample Preparation			
22 Samples of DRY, SIEVE -80	at $ 1.10	$ 24.20	
12 Samples of CRUSH,PULVERIZE -150	at $ 3.75	$ 45.00	
Subtotal		$ 69.20	$ 69.20
	Invoice Total:		$ 528.20 Cdn

Pd By Cheque # 216

APPROVED FOR PAYMENT
MAR 16 1990
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RECEIVED
MINES

Pd By Cheque # 216

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ACCOUNTS DUE WHEN RENDERED

Northern Analytical Laboratories ltd.

October 31, 1989

Ron Berdahl
Box 5664
Whitehorse, Yukon
Y1A 5L5

INVOICE FOR ANALYTICAL SERVICES

WORK ORDER # 34503

Sample Preparation [Soil]	2 x $ 1.00	=	$ 2.00
Sample Preparation [Rock]	24 x $ 3.75	=	$ 90.00
Au 15g Fire Assay/AAS	26 x $ 7.25	=	$ 188.50
31 Element ICP	26 x $ 6.50	=	$ 169.00
Total Due on Receipt of Invoice			$ 449.50

26 samples

Paid

APPROVED FOR PAYMENT
PAP
MAR 16 1990 EIP
RECEIVED
MINES

Thank you for using Northern Analytical Laboratories Ltd.

105 Copper Road, Whitehorse, YT, Y1A 2Z7 Ph: (403) 668-4968 Fax: (403) 668-4890

Northern Analytical Laboratories ltd.

September 10, 1989

Ron Berdahl
Box 5664
Whitehorse, Yukon
Y1A 5L5

INVOICE FOR ANALYTICAL SERVICES

WORK ORDER # 29157

Sample Preparation [Soil]	22 x $ 1.00	=	$ 22.00
Sample Preparation [Rock]	13 x $ 3.75	=	$ 48.75
31 Element ICP	35 x $ 6.50	=	$ 227.50
Total due on receipt of invoice			$ 298.25

35 samples

APPROVED FOR PAYMENT
MAR 16 1990 PAP EIP

RECEIVED
MINES

Thank you for using Northern Analytical Laboratories Ltd.

PAID
10-15-89

105 Copper Road, Whitehorse, YT, Y1A 2Z7 Ph: (403) 668-4968 Fax: (403) 668-4890

Northern Analytical Laboratories ltd.

September 9, 1989

Ron Berdahl
Box 5664
Whitehorse, Yukon
Y1A 5L5

INVOICE FOR ANALYTICAL SERVICES

WORK ORDER # 29152

Sample Preparation [Soil]	9 x $ 1.00	=	$ 9.00
Sample Preparation [Rock]	7 x $ 3.75	=	$ 26.25
31 Element ICP	16 x $ 6.50	=	$ 104.00
Total due on receipt of invoice			$ 139.25

16 samples

PAID 9-15-89

APPROVED FOR PAYMENT
MAR 16 1990
PAP
EIP
RECEIVED
MINES

Thank you for using Northern Analytical Laboratories Ltd.

PAID

105 Copper Road, Whitehorse, YT, Y1A 2Z7 Ph: (403) 668-4968 Fax: (403) 668-4890

Northern Analytical Laboratories ltd.

October 30, 1989

Ron Berdahl
Box 5664
Whitehorse, Yukon
Y1A 5L5

INVOICE FOR ANALYTICAL SERVICES

WORK ORDER # 29157a

Au 15g Fire Assay/AAS	17 x $ 7.25	=	$ 123.25
Total Due on Receipt of Invoice			$ 123.25

17 Samples

APPROVED FOR PAYMENT
MAR 16 1990 PAP EIP

RECEIVED
MINES

Pd ck # 301

Dec 5 89

Thank you for using Northern Analytical Laboratories Ltd.

105 Copper Road, Whitehorse, YT, Y1A 2Z7 Ph: [403] 668-4968 Fax: [403] 668-4890

Military users, refer to this map as: / Référence de cette carte pour usage militaire:	SERIES A 722 SÉRIE MAP 105 D/10 CARTE EDITION 4 MCE ÉDITION

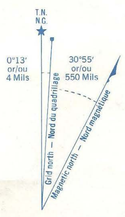
GLOSSARY GLOSSAIRE

Airfield	Terrain d'aviation
Arena	Aréna
City Limits	Limites de ville
Customs	Douane
Ditch	Fossé
Dugout	Abreuvoir
Dump	Dépotoir
Filtration Plant	Usine de filtration
Gas	Gaz
Golf Course	Terrain de golf
Junk Yard	Ferraille
Kiln	Four
Lookout	Belvédère
Mine Waste	Déblai de mine
Oil Wells	Puits de pétrole
Park	Parc
Rink	Patinoire
Senior Citizens Home	Foyer de l'âge d'or
Ski Area	Station de ski
String Bog	Fondrière à filaments
Surveyed Line	Ligne arpentée
Tank	Réservoir
Water	Eau
Winter Road	Chemin d'hiver

For a complete glossary see reverse side
Pour un glossaire complet, voir au verso

ABBREVIATIONS ABRÉVIATIONS

Aband	Abandoned	Abandonné, ée
C	Cemetery	Cimetière
CO	County	Comté
E	Elevator	Élévateur
Fy	Ferry	Traversier
IR	Indian Reserve	Réserve indienne
H	Hospital	Hôpital
L	Lot	Lot
Micro	Microwave	Micro-ondes
Mun	Municipality	Municipalité
P	Post Office	Bureau de poste
PH	Power House	Centrale électrique
RCMP	Royal Canadian Mounted Police	Gendarmerie Royale Canadienne
Res	Reservoir	Réservoir
Trans Sta	Transformer Station	Poste de transformateurs
TFL	Tree Farm Licence	Licence de sylviculture



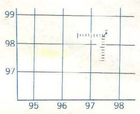
Use diagram only to obtain numerical values
APPROXIMATE MEAN DECLINATION 1978
FOR CENTRE OF MAP
Annual change decreasing 2.4'

N'utiliser le diagramme que pour obtenir les valeurs numériques
DÉCLINAISON MOYENNE APPROXIMATIVE
AU CENTRE DE LA CARTE EN 1978
Variation annuelle décroissante 2.4'

ONE THOUSAND METRE
UNIVERSAL TRANSVERSE MERCATOR GRID
ZONE 8
QUADRILLAGE DE MILLE MÈTRES
TRANSVERSE UNIVERSEL DE MERCATOR

GRID ZONE DESIGNATION: DÉSIGNATION DE LA ZONE DU QUADRILLAGE:	100 000 M. SQUARE IDENTIFICATION IDENTIFICATION DU CARRÉ DE 100 000 M.
8V	NC (5)

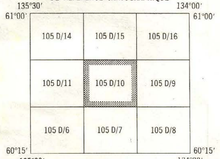
EXAMPLE OF METHOD USED
TO GIVE A REFERENCE TO NEAREST 100 METRES
EXEMPLE DE LA MÉTHODE EMPLOYÉE
POUR FIXER DES REPÈRES À 100 MÈTRES PRÈS



REFERENCE POINT / POINT DE REPÈRE	CHURCH - ÉGLISE	(as above) (ci-dessus)
EASTING: Read number on grid line immediately to left of point: ABSCISSE: Noter le chiffre de la ligne du quadrillage immédiatement à gauche du repère:	97	
Estimate tenths of a square from this line eastward to point: Estimer le nombre de dixièmes du carré entre cette ligne et le repère en direction est:	5	5 975
NORTHING: Read number on grid line immediately below point: ORDONNÉE: Noter le chiffre de la ligne du quadrillage immédiatement en dessous du repère:	98	
Estimate tenths of a square from this line northward to point: Estimer le nombre de dixièmes du carré entre cette ligne et le repère en direction nord:	4	4 984
GRID REFERENCE: RÉFÉRENCE AU QUADRILLAGE:		975984

Nearest similar grid reference 100 000 metres (about 63 miles)
La prochaine référence similaire est à 100 000 mètres (environ 63 milles)

TABLEAU D'ASSEMBLAGE DU SYSTÈME NATIONAL DE RÉFÉRENCE CARTOGRAPHIQUE



INDEX TO ADJOINING MAPS OF
THE NATIONAL TOPOGRAPHIC SYSTEM

Produced by the SURVEYS AND MAPPING BRANCH, DEPARTMENT OF ENERGY, MINES AND RESOURCES.
Untested from aerial photographs taken in 1978. Culture check 1978. Published in 1980.

Copies may be obtained from the Canada Map Office, Department of Energy, Mines and Resources, Ottawa, or your nearest map dealer.

Roads:	Routes:		
hard surface, all weather	pavée, toute saison	dual highway, 2 chaussées séparées, 2 lanes, 2 voies, 2 lanes or more, 2 voies ou plus	more than 2 lanes, plus de 2 voies, less than 2 lanes, moins de 2 voies
hard surface, all weather	pavée, toute saison		
loose or stabilized surface, all weather	gravier, aggloméré, toute saison		
loose surface, dry weather	de gravier, temps sec		
unclassified streets	rues hors classe		
cart track	de terre		
trail, cut line or portage	sentier, percée ou portage		

FOR COMPLETE REFERENCE SEE REVERSE SIDE POUR UNE LISTE COMPLÈTE DES SIGNES, VOIR AU VERSO

MacRAE
YUKON TERRITORY

Scale 1:50 000 Échelle

Miles 1 0 1 2 3 Miles
Metres 1000 0 1000 2000 3000 4000 Mètres
Yards 1000 0 1000 2000 3000 4000 Verges

Information concerning location and precise elevation of bench marks can be obtained by writing to the Geodetic Survey, Surveys and Mapping Branch, Ottawa.

CONVERSION SCALE FOR ELEVATIONS
Metres 30 20 10 0 50 100
Feet 100 50 0 100 200 300 400 500 600 700 800 900 1000 Pieds

CONTOUR INTERVAL 100 FEET
Elevations in Feet above Mean Sea Level
North American Datum 1927
Transverse Mercator Projection

On peut obtenir des renseignements sur le lieu et l'altitude exacte des repères de nivellement en écrivant aux Levés géodésiques, Direction des levés et de la cartographie, Ottawa.

ÉCHELLE DE CONVERSION DES ALTITUDES
150 200 250 300 Mètres

ÉQUIDISTANCE DES COURBES 100 PIEDS
Altitudes en pieds
Système de référence géodésique nord-américain, 1927
Projection transverse de Mercator

Établie par la DIRECTION DES LEVÉS ET DE LA CARTOGRAPHIE, MINISTÈRE DE L'ÉNERGIE, DES MINES ET DES RESSOURCES. Mise à jour à l'aide de photographies aériennes prises en 1978. Vérification des ouvrages en 1978. Publiée en 1980.

Ces cartes sont en vente au Bureau des Cartes du Canada, ministère de l'Énergie, des Mines et des Ressources, Ottawa, ou chez le vendeur le plus près.

MacRAE
105 D/10
EDITION 4

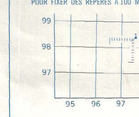
Military users, refer to this map as: / Référence de cette carte pour usage militaire:
SERIES A 722 SÉRIE
MAP 115 G/1 CARTE
EDITION 2 MCE ÉDITION

Use diagram only to obtain numerical values
APPROXIMATE MEAN DECLINATION 1983
FOR CENTRE OF MAP
Annual change decreasing 5.3'
N'utiliser le diagramme que pour obtenir les valeurs numériques
DÉCLINAISON MOYENNE APPROXIMATIVE
AU CENTRE DE LA CARTE EN 1983
Variation annuelle décroissante 5.3'

ONE THOUSAND METRE
UNIVERSAL TRANSVERSE MERCATOR GRID
ZONE 7V
QUADRILLAGE DE MILLE MÈTRES
TRANSVERSE UNIVERSEL DE MERCATOR

GRID ZONE DESIGNATION. DÉSIGNATION DE LA ZONE DU QUADRILLAGE:	100 000 m SQUARE IDENTIFICATION IDENTIFICATION DU CARRÉ DE 100 000 m
7V	FT

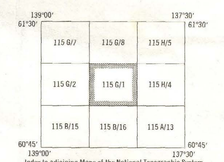
EXAMPLE OF METHOD USED TO GIVE A REFERENCE TO NEAREST 100 METRES
EXEMPLE DE LA MÉTHODE EMPLOYÉE POUR FIXER DES REPÈRES À 100 MÈTRES PRÈS



REFERENCE POINT / POINT DE REPÈRE	CHURCH - ÉGLISE (as above / ci-dessus)
EASTING: Read number on grid line immediately to left of point. ABSCISSE: Noter le chiffre de la ligne du quadrillage immédiatement à gauche du repère:	97
Estimate tenths of a square from this line eastward to point: Estimer le nombre de dixièmes du carré entre cette ligne et le repère en direction est:	5
	975
NORTHING: Read number on grid line immediately below point. ORDONNÉE: Noter le chiffre de la ligne du quadrillage immédiatement en dessous du repère:	98
Estimate tenths of a square from this line northward to point: Estimer le nombre de dixièmes du carré entre cette ligne et le repère en direction nord:	4
GRID REFERENCE:	984
RÉFÉRENCE AU QUADRILLAGE:	975984

Nearest similar grid reference 100 000 metres
La prochaine référence similaire est à 100 000 mètres

BROWN NUMBERED TICKS INDICATE THE 1000 METRE U.T.M. GRID ZONE 8
LES AMORCES BRUNES NUMEROTÉES REPRÉSENTENT LE QUADRILLAGE DE 1000 MÈTRES T.U.M.



Index to adjoining Maps of the National Topographic System
Tableau d'assemblage du Système national de référence cartographique

Produced by the SURVEYS AND MAPPING BRANCH, DEPARTMENT OF ENERGY, MINES AND RESOURCES. Updated from aerial photographs taken in 1979. Culture check 1983. Published in 1983.

Copies may be obtained from the Canada Map Office, Department of Energy, Mines and Resources, Ottawa, or your nearest map dealer.

Roads: / Routes:

	2 lanes or more / 2 voies ou plus	less than 2 lanes / moins de 2 voies
loose or stabilized surface, all weather ... gravier, agglomeré, toute saison		
loose surface, dry weather ... de gravier, temps sec		
unclassified streets ... rues hors classe		
cart track ... de terre		
trail, cut line or portage ... sentier, percée ou portage		

FOR COMPLETE REFERENCE SEE REVERSE SIDE — POUR UNE LISTE COMPLÈTE DES SIGNES, VOIR AU VERSO

CULTUS CREEK
YUKON TERRITORY TERRITOIRE DU YUKON

Scale 1:50 000 Échelle

Miles 1 0 1 2 3 Miles
Metres 1000 0 1000 2000 3000 4000 Mètres
Yards 1000 0 1000 2000 3000 4000 Verges

Information concerning bench marks and horizontal survey monuments can be obtained from Geodetic Survey, Surveys and Mapping Branch, Ottawa.

Pour tout renseignement concernant les repères et bornes géodésiques, s'adresser aux levés géodésiques, Direction des levés et de la cartographie, Ottawa.

CONVERSION SCALE FOR ELEVATIONS
Metres 30 20 10 0 50 100
Feet 100 50 0 100 200 300 400

ÉCHELLE DE CONVERSION DES ALTITUDES
Mètres 150 200 250 300
Pieds 500 600 700 800 900 1000

CONTOUR INTERVAL 100 FEET
Elevations in Feet above Mean Sea Level
North American Datum 1927
Transverse Mercator Projection

ÉQUIDISTANCE DES COURBES 100 PIEDS
Altitudes en pieds
Système de référence géodésique nord américain, 1927
Projection transverse de Mercator

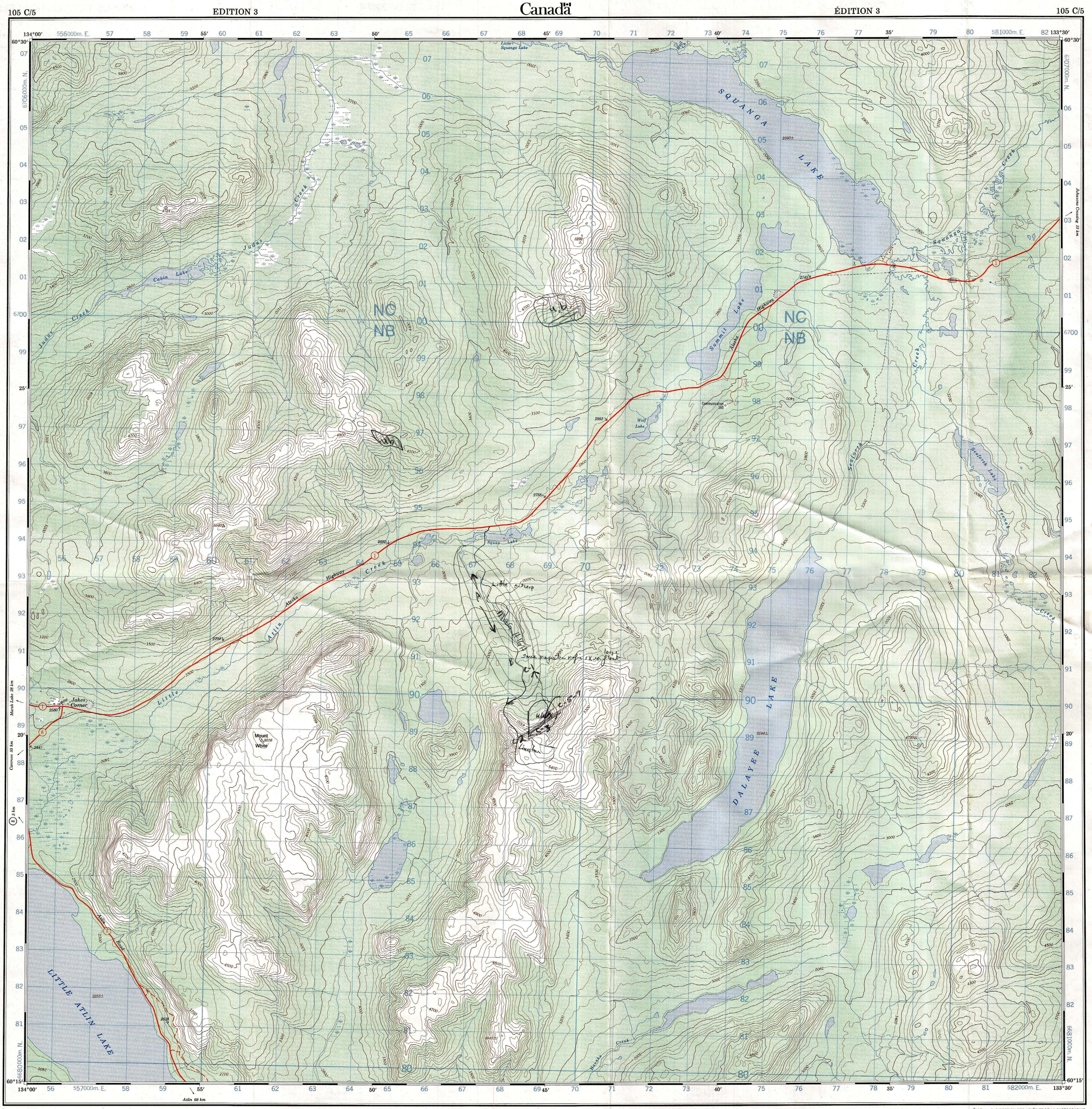
Établie par la DIRECTION DES LEVÉS ET DE LA CARTOGRAPHIE, MINISTÈRE DE L'ÉNERGIE, DES MINES ET DES RESSOURCES. Mise à jour à l'aide de photographies aériennes prises en 1979. Vérification des ouvrages en 1981. Publiée en 1983.

Ces cartes sont en vente au Bureau des Cartes du Canada, ministère de l'Énergie, des Mines et des Ressources, Ottawa, ou chez le vendeur le plus près.

CULTUS CREEK
115 G/1
EDITION 2 ÉDITION

Energy, Mines and Resources Canada
Énergie, Mines et Ressources Canada

Military users, refer to this map as: SERIES A 722 SÉRIE
Référence de cette carte pour usage militaire: MAP 105 C/5 CARTE
EDITION 3 MCE ÉDITION



T.N. N.G.
1°05′ or/ou 19 Mils
28°44′ or/ou 511 Mils
Grid north — Nord du quadrillage
Magnetic north — Nord magnétique

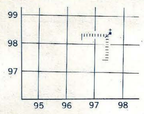
Use diagram only to obtain numerical values
APPROXIMATE MEAN DECLINATION 1984
FOR CENTRE OF MAP
Annual change decreasing 6.8′

N'utiliser le diagramme que pour obtenir les valeurs numériques
DÉCLINAISON MOYENNE APPROXIMATIVE
AU CENTRE DE LA CARTE EN 1984
Variation annuelle décroissante 6.8′

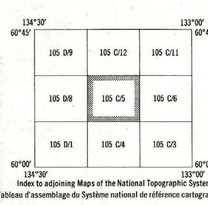
ONE THOUSAND METRE
UNIVERSAL TRANSVERSE MERCATOR GRID
ZONE 8
QUADRILLAGE DE MILLE MÈTRES
TRANSVERSE UNIVERSEL DE MERCATOR

GRID ZONE DESIGNATION: DÉSIGNATION DE LA ZONE DU QUADRILLAGE:	100 000 m SQUARE IDENTIFICATION IDENTIFICATION DU CARRÉ DE 100 000 m
8 V	NC / NB 67

EXAMPLE OF METHOD USED
TO GIVE A REFERENCE TO NEAREST 100 METRES
EXEMPLE DE LA MÉTHODE EMPLOYÉE
POUR FIXER DES REPÈRES À 100 MÈTRES PRÈS



REFERENCE POINT / POINT DE REPÈRE: CHURCH · ÉGLISE	(as above) (ci-dessus)
EASTING: Read number on grid line immediately to left of point. ABSCISSE: Noter le chiffre de la ligne du quadrillage immédiatement à gauche du repère:	97
Estimate tenths of a square from this line eastward to point: Estimer le nombre de dixièmes du carré entre cette ligne et le repère en direction est:	5
	975
NORTHING: Read number on grid line immediately below point. ORDONNÉE: Noter le chiffre de la ligne du quadrillage immédiatement en dessous du repère:	98
Estimate tenths of a square from this line northward to point: Estimer le nombre de dixièmes du carré entre cette ligne et le repère en direction nord:	4
GRID REFERENCE: RÉFÉRENCE AU QUADRILLAGE:	984 / 975984
Nearest similar grid reference 100 000 metres / La prochaine référence similaire est à 100 000 mètres	



Index to adjoining Maps of the National Topographic System
Tableau d'assemblage du Système national de référence cartographique

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Roads: / Routes:		dual highway: double chaussée 2 lanes / 2 voies	more than 2 lanes: plus de 2 voies	less than 2 lanes: moins de 2 voies
hard surface	revêtement dur			
hard surface	revêtement dur			
loose or stabilized surface, all weather	gravier, aggloméré, toute saison	2 lanes or more: 2 voies ou plus		less than 2 lanes: moins de 2 voies
loose surface, dry weather	de gravier, temps sec			
unclassified road or street	route non classée ou rue			
cart track	de terre			
trail, cut line or portage	sentier, percée ou portage			

FOR COMPLETE REFERENCE SEE REVERSE SIDE — POUR UNE LISTE COMPLÈTE DES SIGNES, VOIR AU VERSO

SQUANGA LAKE
YUKON TERRITORY TERRITOIRE DU YUKON

Scale 1:50 000 Échelle

Miles 1 0 1 2 3 Miles
Metres 1000 0 1000 2000 3000 4000 Mètres

Information concerning bench marks and horizontal survey monuments can be obtained from Geodetic Survey, Surveys and Mapping Branch, Ottawa.

CONVERSION SCALE FOR ELEVATIONS
Metres 30 20 10 0 50 100
Feet 100 50 0 100 200 300 400

CONTOUR INTERVAL 100 FEET
Elevations in Feet above Mean Sea Level
North American Datum 1927
Transverse Mercator Projection

Pour tout renseignement concernant les repères et bornes altimétriques, s'adresser aux levés géodésiques, Direction des levés et de la cartographie, Ottawa.

ÉCHELLE DE CONVERSION DES ALTITUDES
150 200 250 300 Mètres
500 600 700 800 900 1000 Pieds

ÉQUIDISTANCE DES COURBES 100 PIEDS
Altitudes en pieds
Système de référence géodésique nord-américain,1927
Projection transverse de Mercator

Établie par la DIRECTION DES LEVÉS ET DE LA CARTOGRAPHIE, MINISTÈRE DE L'ÉNERGIE, DES MINES ET DES RESSOURCES. Mise à jour à l'aide de photographies aériennes prises en 1979. Vérification des ouvrages en 1981. Publiée en 1984.

Ces cartes sont en vente au Bureau des Cartes du Canada, ministère de l'Énergie, des Mines et des Ressources, Ottawa, ou chez le vendeur le plus près.

SQUANGA LAKE
105 C/5
EDITION 3 ÉDITION

Energy, Mines and Resources Canada — Énergie, Mines et Ressources Canada

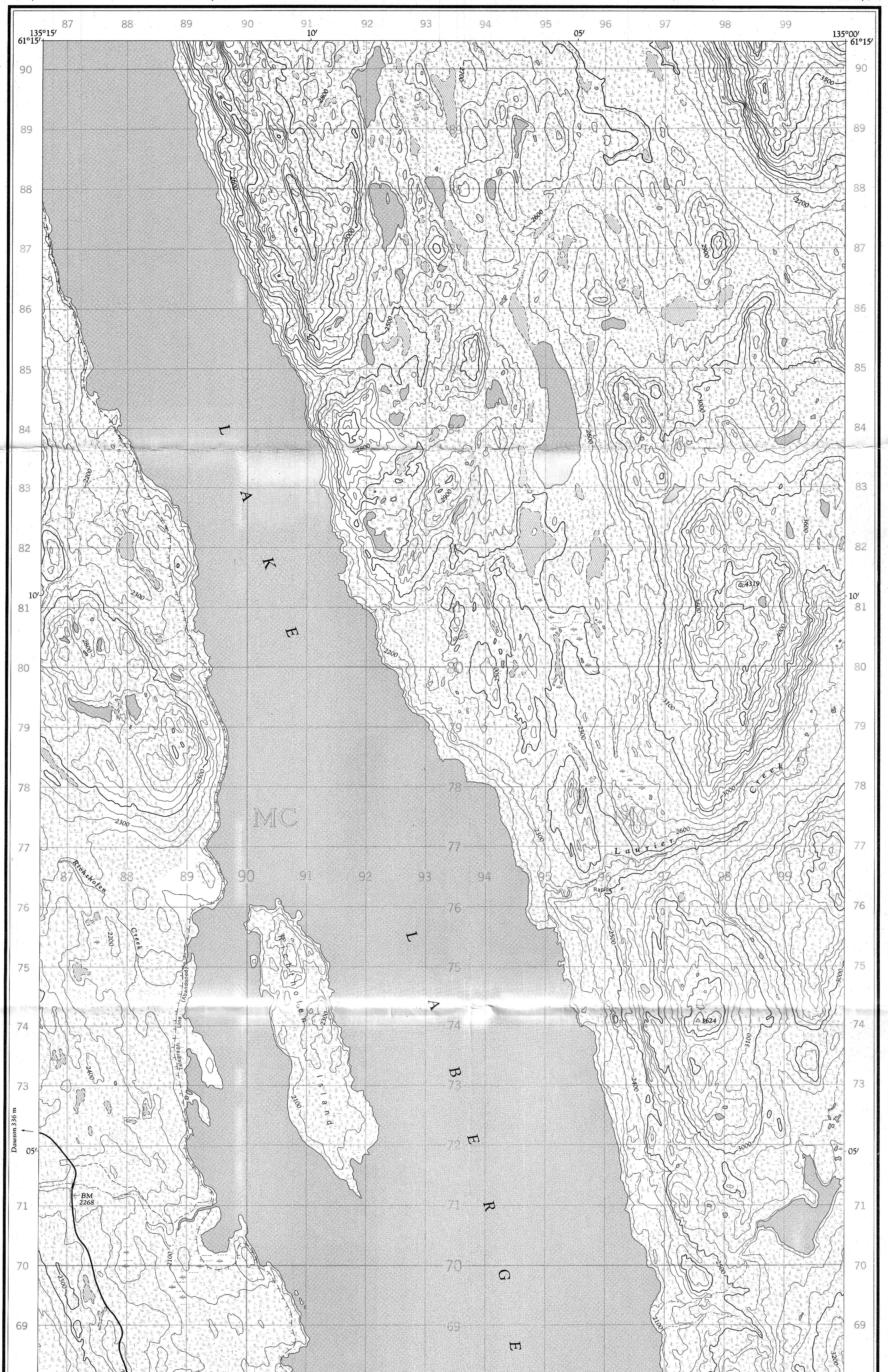
PROVISIONAL MAP — CARTE PROVISOIRE

105 E/3 E — 1:50,000

CANADA

EDITION 1 — 105 E/3 E

Refer to this map as:	105E/3 EAST EDITION 1 ASE SERIES A 722



CONVERSION SCALE FOR ELEVATIONS

Metres: 30 20 10 0 50 100 150 200 250 300

Feet: 100 50 0 100 200 300 400 500 600 700 800 900 1000

T.N.

0° 06′ or 2 Mils

31° 51′ or 566 Mils

Grid North — Magnetic North

Use diagram only to obtain numerical values.
APPROXIMATE MEAN DECLINATION 1961
FOR CENTRE OF MAP
Annual change decreasing 3.0′

GRID ZONE DESIGNATION	100,000 M. SQUARE IDENTIFICATION
8V	MC (5)

TO GIVE A REFERENCE TO NEAREST 100 METRES

EXAMPLE: RAPIDS

EASTING: Read number on grid line immediately to left of point	95
Estimate tenths of a square from this line eastward to point.	7
	957
NORTHING: Read number on grid line immediately below point	76
Estimate tenths of a square from this line northward to point.	3
	763
MILITARY GRID REFERENCE	957763

Nearest similar grid reference 100,000 metres (about 63 miles)

ONE THOUSAND METRE
UNIVERSAL TRANSVERSE MERCATOR GRID
ZONE 8

Produced and printed by the **SURVEYS AND MAPPING BRANCH, DEPARTMENT OF MINES AND TECHNICAL SURVEYS**, 1961, from air photographs taken in 1948 and 1954.

Copies may be obtained from the Map Distribution Office, Department of Mines and Technical Surveys, Ottawa.

U.B. bed-in R-Block w/asbestos, mariposite qtz carb, (Au.) R.Block

LAKE LABERGE
YUKON TERRITORY

Établie et imprimée par la **DIRECTION DES LEVÉS ET DE LA CARTOGRAPHIE, MINISTÈRE DES MINES ET DES RELEVÉS TECHNIQUES**, en 1961, d'après les photographies aériennes prises en 1948 et 1954.

Ces cartes sont en vente au Bureau de distribution des cartes, ministère des Mines et des Relevés techniques, Ottawa.

SCALE 1:50,000 ÉCHELLE

Miles 1 — 0 — 1 — 2 — 3 Milles

Metres 1000 — 500 — 0 — 1000 — 2000 — 3000 — 4000 Mètres

Yards 1000 — 500 — 0 — 1000 — 2000 — 3000 — 4000 Verges

Roads:	Routes:
all weather	toute saison
dry weather	période sèche
cart track	de terre
trail or portage	sentier ou portage
Railway, normal gauge, single track	Chemin de fer, voie unique (écartement normal) — siding / voie d'évitement; station / gare
Power transmission line	Ligne de transport d'énergie
Mine or Open cut	Mine ou fosse à ciel ouvert
Horizontal control point, with elevation	Point géodésique avec cote — 454 △
Bench mark, with elevation	Repère de nivellement avec cote — BM 157→

Building	Bâtiment
School	École
Church	Église
Barn	Grange
Post Office	Bureau de poste — P
Cemetery	Cimetière — C
Lighthouse	Phare
River with bridge	Rivière avec pont
Stream, intermittent or dry	Cours d'eau intermittent, ou à sec
Lake intermittent; indefinite	Lac intermittent; rive imprécise
Marsh or Swamp	Marais ou marécage
Depression contours	Courbes de cuvette

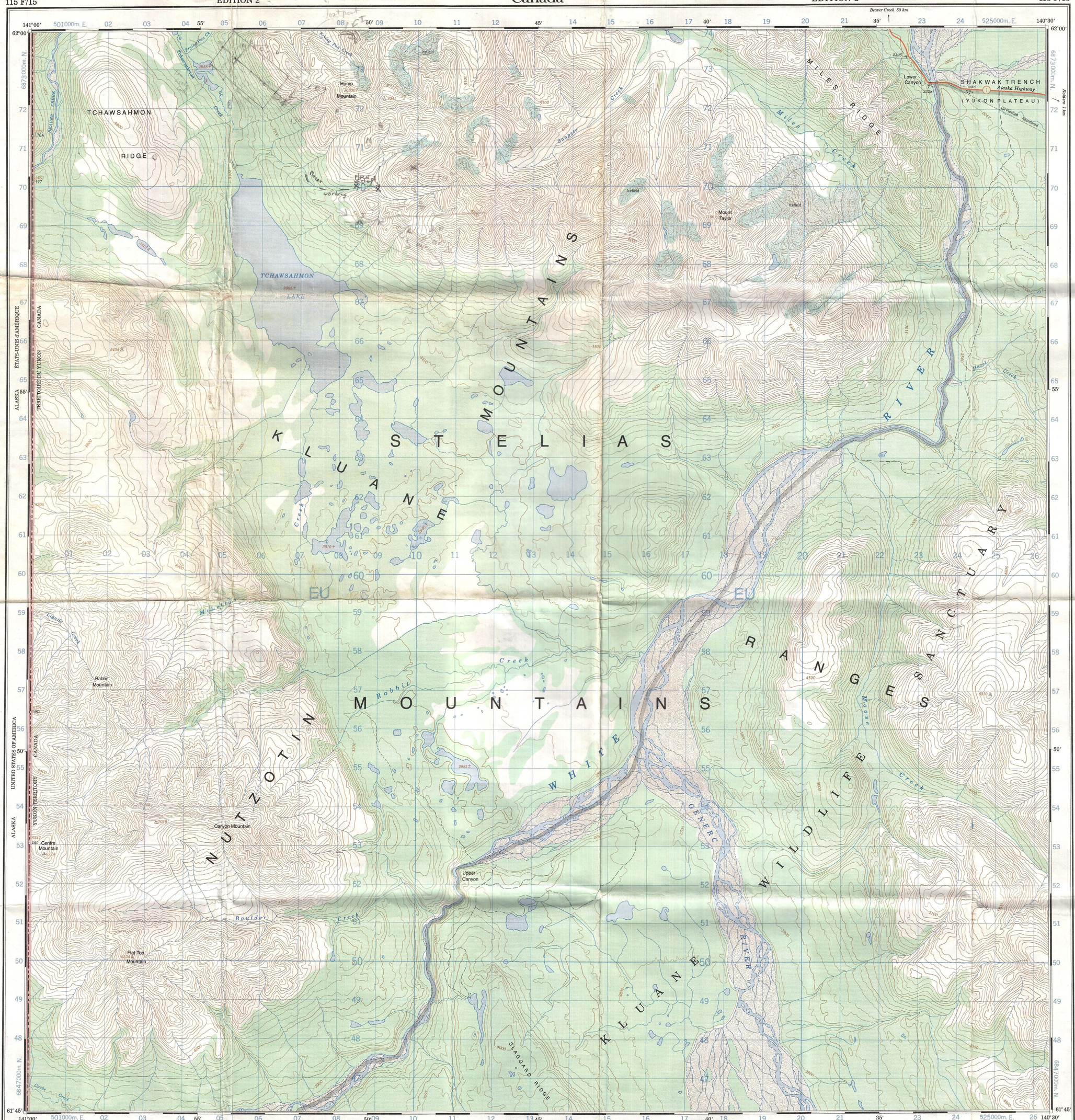
CONTOUR INTERVAL 100 FEET
Elevations in Feet above Mean Sea Level
North American Datum 1927
Transverse Mercator Projection

ÉQUIDISTANCE DES COURBES: 100 PIEDS
Élévations en pieds au-dessus du niveau moyen de la mer
Réseau géodésique nord-américain unifié (1927)
Projection transverse de Mercator

The nomenclature on this map has not been submitted to the Canadian Board on Geographical Names and may be subject to revision. Information on names is invited by the Surveys and Mapping Branch.

La nomenclature de la présente carte n'a pas été soumise à la Commission canadienne des noms géographiques et, par conséquent, elle pourrait faire l'objet d'une revision. Tous renseignements sur les noms seront bien accueillis par la Direction des levés et de la cartographie.

NATIONAL TOPOGRAPHIC SYSTEM
SYSTÈME DE RÉFÉRENCE CARTOGRAPHIQUE NATIONAL



Military users, refer to this map as: SERIES A 722 SÉRIE
Référence de cette carte pour usage militaire: MAP 115 F/15 CARTE
EDITION 2 MCE EDITION

T.N. N.G.
0°13′ or ou 4 Mils
28°58′ or ou 515 Mils
Grid north — Nord du quadrillage
Magnetic north — Nord magnétique

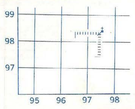
Use diagram only to obtain numerical values
APPROXIMATE MEAN DECLINATION 1985
FOR CENTRE OF MAP
Annual change decreasing 4.4′

N'utiliser le diagramme que pour obtenir les valeurs numériques
DÉCLINAISON MOYENNE APPROXIMATIVE
AU CENTRE DE LA CARTE EN 1985
Variation annuelle décroissante 4,4′

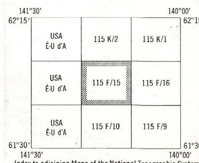
ONE THOUSAND METRE
UNIVERSAL TRANSVERSE MERCATOR GRID
ZONE 7
QUADRILLAGE UNIVERSEL TRANSVERSE DE MERCATOR
DE MILLE MÈTRES

GRID ZONE DESIGNATION: DÉSIGNATION DE LA ZONE OU QUADRILLAGE:	100 000 m SQUARE IDENTIFICATION IDENTIFICATION DU CARRÉ DE 100 000 m
7 V	EU 5

EXAMPLE OF METHOD USED TO GIVE A REFERENCE TO NEAREST 100 METRES
EXEMPLE DE LA MÉTHODE EMPLOYÉE POUR FIXER DES REPÈRES À 100 MÈTRES PRÈS



REFERENCE POINT POINT DE REPÈRE	CHURCH - ÉGLISE	(as above) (ci-dessus)
EASTING: Read number on grid line immediately to left of point: ABSCISSE. Noter le chiffre de la ligne du quadrillage immédiatement à gauche du repère:		97
Estimate tenths of a square from this line eastward to point: Estimer le nombre de dixièmes du carré entre cette ligne et le repère en direction est:		5
		975
NORTHING: Read number on grid line immediately below point: ORDONNÉ: Noter le chiffre de la ligne du quadrillage immédiatement en dessous du repère:		98
Estimate tenths of a square from this line northward to point: Estimer le nombre de dixièmes du carré entre cette ligne et le repère en direction nord:		4
GRID REFERENCE: RÉFÉRENCE AU QUADRILLAGE:		984 975984
Nearest similar grid reference 100 000 metres La prochaine référence similaire est à 100 000 mètres		



Index to adjoining Maps of the National Topographic System
Tableau d'assemblage du Système national de référence cartographique

Produced by the SURVEYS AND MAPPING BRANCH, DEPARTMENT OF ENERGY MINES AND RESOURCES.
Updated from aerial photographs taken in 1979. Culture check 1981. Published in 1986.

Copies may be obtained from the Canada Map Office, Department of Energy, Mines and Resources, Ottawa, or your nearest map dealer.

Roads: Routes:

	2 lanes or more 2 voies ou plus	less than 2 lanes moins de 2 voies
loose or stabilized surface, all weather .. gravier, agglomeré, toute saison ..		
loose surface, dry weather ..... de gravier, temps sec		
unclassified road or street ..... route non classée ou rue		
cart track ..... de terre		
trail, cut line or portage ..... sentier, percée ou portage		

FOR COMPLETE REFERENCE SEE REVERSE SIDE POUR UNE LISTE COMPLÈTE DES SIGNES, VOIR AU VERSO

CANYON MOUNTAIN
CANADA UNITED STATES OF AMERICA
CANADA ÉTATS-UNIS D'AMÉRIQUE

Scale 1:50 000 Échelle

Miles 1 0 1 2 3 Miles
Metres 1000 0 1000 2000 3000 4000 Mètres

Information concerning bench marks and horizontal survey monuments can be obtained from Geodetic Survey, Surveys and Mapping Branch, Ottawa.

CONVERSION SCALE FOR ELEVATIONS
Metres 30 20 10 0 50 100
Feet 100 50 0 100 200 300 400

CONTOUR INTERVAL 100 FEET
Elevations in Feet above Mean Sea Level
North American Datum 1927
Transverse Mercator Projection

Pour tout renseignement concernant les repères et bornes altimétriques, s'adresser aux levés géodésiques, Direction des levés et de la cartographie, Ottawa.

ÉCHELLE DE CONVERSION DES ALTITUDES
150 200 250 300 Mètres
500 600 700 800 900 1000 Pieds

ÉQUIDISTANCE DES COURBES 100 PIEDS
Altitudes en pieds
Système de référence géodésique nord-américain,1927
Projection transverse de Mercator

Établie par la DIRECTION DES LEVÉS ET DE LA CARTOGRAPHIE, MINISTÈRE DE L'ÉNERGIE, DES MINES ET DES RESSOURCES.
Mise à jour à l'aide de photographies aériennes prises en 1979. Vérification des ouvrages en 1981. Publiée en 1986.

Ces cartes sont en vente au Bureau des Cartes du Canada, ministère de l'Énergie, des Mines et des Ressources, Ottawa, ou chez le vendeur le plus près.

CANYON MOUNTAIN
115 F/15
EDITION 2 ÉDITION

Energy, Mines and Resources Canada Énergie, Mines et Ressources Canada

PROVISIONAL MAP
115 G/14
1:50,000

CANADA

EDITION 1

CARTE PROVISOIRE
115 G/14

Joins 115 J/3

Joins 115 G/13

Joins 115 G/15

Joins 115 G/11

Refer to this map as: 115 G/14 EDITION 1 MCE SERIES A 722

TOSHINGERMANN LAKES
YUKON TERRITORY

Scale 1:50,000 Échelle

Miles 1 0 1 2 3 Milles
Metres 1000 0 1000 2000 3000 4000 Mètres
Yards 1000 0 1000 2000 3000 4000 Verges

CONVERSION SCALE FOR ELEVATIONS
Metres / Feet

T.N.
1°33' or 28 Mils
28°57' or 515 Mils
Grid North
Magnetic North

Use diagram only to obtain numerical values.
APPROXIMATE MEAN DECLINATION 1969
FOR CENTRE OF MAP
Annual change decreasing 3.3'

ONE THOUSAND METRE
UNIVERSAL TRANSVERSE MERCATOR GRID
ZONE 7

GRID ZONE DESIGNATION	100,000 M. SQUARE IDENTIFICATION
7 V	EU / FU 6

EXAMPLE OF METHOD USED
TO GIVE A REFERENCE TO NEAREST 100 METRES
THE FOLLOWING GRID REFERENCE IS A SAMPLE ONLY.
AND DOES NOT REFER TO A POINT ON THIS MAP

REFERENCE POINT	CHURCH (as above)	
EASTING: Read number on grid line immediately to left of point	97	
Estimate tenths of a square from this line eastward to point		5
	975	
NORTHING: Read number on grid line immediately below point	98	
Estimate tenths of a square from this line northward to point		4
	984	

EXAMPLE MILITARY GRID REFERENCE 975984

Nearest similar grid reference 100,000 metres (about 63 miles)

Produced, 1968, by the SURVEYS AND MAPPING BRANCH, DEPARTMENT OF ENERGY, MINES AND RESOURCES, from aerial photographs taken in 1956. Field surveys 1966. Printed 1971.

Copies may be obtained from the Map Distribution Office, Department of Energy, Mines and Resources, Ottawa.

This Provisional Map is equivalent to a standard map in accuracy of content.

Some names on this map are not yet official. Corrections or additions are invited by the Surveys and Mapping Branch.

CONTOUR INTERVAL 100 FEET
Elevations in Feet above Mean Sea Level
North American Datum 1927
Transverse Mercator Projection

Cette carte provisoire équivaut une carte régulière au point de vue précision de l'information.

Certains noms inscrits sur cette carte ne sont pas encore officiels. La Direction des levés et de la cartographie saurait gré au public de lui signaler corrections et additions.

ÉQUIDISTANCE DES COURBES 100 PIEDS
Élévations en pieds au-dessus du niveau moyen de la mer
Système de référence géodésique nord-américain 1927
Projection transverse de Mercator

Établie en 1968, par la DIRECTION DES LEVÉS ET DE LA CARTOGRAPHIE, MINISTÈRE DE L'ÉNERGIE, DES MINES ET DES RESSOURCES, d'après des photographies aériennes prises en 1956. Levés sur le terrain en 1966. Imprimée en 1971.

Ces cartes sont en vente au Bureau de distribution des cartes, ministère de l'Énergie, des Mines et des Ressources, Ottawa.

115 G/14
EDITION 1

Military users, refer to this map as: Référence de cette carte pour usage militaire:
SERIES A722 SÉRIE
MAP 115 K/2 CARTE
EDITION 3 MCE ÉDITION

DRY CREEK
YUKON TERRITORY TERRITOIRE DU YUKON

Scale 1:50 000 Échelle

Miles 1 0 1 2 3 Miles
Metres 1000 0 1000 2000 3000 4000 Mètres

CONTOUR INTERVAL 100 FEET
Elevations in Feet above Mean Sea Level
North American Datum 1927
Transverse Mercator Projection

ÉQUIDISTANCE DES COURBES 100 PIEDS
Altitudes en pieds
Système de référence géodésique nord-américain,1927
Projection transverse de Mercator

CONVERSION SCALE FOR ELEVATIONS
Metres 30 20 10 0 50 100
Feet 100 50 0 100 200 300 400 500 600 700 800 900 1000 Pieds

ÉCHELLE DE CONVERSION DES ALTITUDES
150 200 250 300 Mètres

Information concerning bench marks and horizontal survey monuments can be obtained from Geodetic Survey, Surveys and Mapping Branch, Ottawa.

Pour tout renseignement concernant les repères et bornes altimétriques, s'adresser aux levés géodésiques, Direction des levés et de la cartographie, Ottawa.

Roads:
loose or stabilized surface, all weather
loose surface, dry weather
unclassified road or street
cart track
trail, cut line or portage

Routes:
gravier, aggloméré, toute saison — 2 lanes or more / 2 voies ou plus — less than 2 lanes / moins de 2 voies
de gravier, temps sec
route non classée ou rue
de terre
sentier, percée ou portage

FOR COMPLETE REFERENCE SEE REVERSE SIDE

POUR UNE LISTE COMPLÈTE DES SIGNES, VOIR AU VERSO

Produced by the SURVEYS AND MAPPING BRANCH, DEPARTMENT OF ENERGY, MINES AND RESOURCES. Updated from aerial photographs taken in 1979. Culture check 1981. Published in 1984.

Copies may be obtained from the Canada Map Office, Department of Energy, Mines and Resources, Ottawa, or your nearest map dealer.

Établie par la DIRECTION DES LEVÉS ET DE LA CARTOGRAPHIE, MINISTÈRE DE L'ÉNERGIE, DES MINES ET DES RESSOURCES. Mise à jour à l'aide de photographies aériennes prises en 1979. Vérification des ouvrages en 1981. Publiée en 1984.

Ces cartes sont en vente au Bureau des Cartes du Canada, ministère de l'Énergie, des Mines et des Ressources, Ottawa, ou chez le vendeur le plus près.

T.N. N.G. 0°13′ or/ou 4 Mils 29°14′ or/ou 520 Mils
Grid north — Nord du quadrillage
Magnetic north — Nord magnétique

Use diagram only to obtain numerical values
APPROXIMATE MEAN DECLINATION 1984
FOR CENTRE OF MAP
Annual change decreasing 4.4′

N'utiliser le diagramme que pour obtenir les valeurs numériques
DÉCLINAISON MOYENNE APPROXIMATIVE
AU CENTRE DE LA CARTE EN 1984
Variation annuelle decroissante 4,4′

ONE THOUSAND METRE
UNIVERSAL TRANSVERSE MERCATOR GRID
ZONE 7
QUADRILLAGE DE MILLE MÈTRES
TRANSVERSE UNIVERSEL DE MERCATOR

GRID ZONE DESIGNATION: DÉSIGNATION DE LA ZONE DU QUADRILLAGE: 7V

100 000 m SQUARE IDENTIFICATION / IDENTIFICATION DU CARRÉ DE 100 000 m: EV 69 / EU / 5

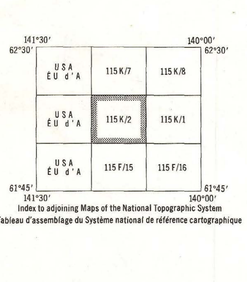
EXAMPLE OF METHOD USED TO GIVE A REFERENCE TO NEAREST 100 METRES
EXEMPLE DE LA MÉTHODE EMPLOYÉE POUR FIXER DES REPÈRES À 100 MÈTRES PRÈS

REFERENCE POINT / POINT DE REPÈRE: CHURCH - ÉGLISE (as above / ci-dessus)

EASTING: Read number on grid line immediately to left of point: 97
ABSCISSE: Noter le chiffre de la ligne du quadrillage immédiatement à gauche du repère:
Estimate tenths of a square from this line eastward to point: 5
Estimer le nombre de dixièmes du carré entre cette ligne et le repère en direction est:
975

NORTHING: Read number on grid line immediately below point: 98
ORDONNÉE: Noter le chiffre de la ligne du quadrillage immédiatement en dessous du repère:
Estimate tenths of a square from this line northward to point: 4
Estimer le nombre de dixièmes du carré entre cette ligne et le repère en direction nord:
GRID REFERENCE: 984
RÉFÉRENCE AU QUADRILLAGE: 976984

Nearest similar grid reference 100 000 metres (about 63 miles)
La prochaine référence similaire est à 100 000 mètres (environ 63 miles)



Index to adjoining Maps of the National Topographic System
Tableau d'assemblage du Système national de référence cartographique

DRY CREEK
115 K/2
EDITION 3 ÉDITION

Energy, Mines and Resources Canada Énergie, Mines et Ressources Canada

Military users, refer to this map as: / Référence de cette carte pour usage militaire:	SERIES A 722 SÉRIE MAP 115 G/2 CARTE EDITION 3 MCE ÉDITION

CONGDON CREEK
YUKON TERRITORY

Scale 1:50 000 Échelle

Miles 1 0 1 2 3 Miles
Metres 1000 0 1000 2000 3000 4000 Mètres
Yards 1000 0 1000 2000 3000 4000 Verges

Destruction Bay 1 km

Silver City 10 km

SHAKWAK TRENCH (YUKON PLATEAU)

KLUANE LAKE

KLUANE GAME SANCTUARY

ST ELIAS MOUNTAINS

DONJEK RANGE

KLUANE NATIONAL PARK

PARC NATIONAL DE KLUANE

Abandoned Pipeline

Alaska Highway

Dutch Harbour

Goose Bay

Right On Mountain

Kluane Lake

SLIMS RIVER

Roads: Routes:

	2 lanes or more / 2 voies ou plus	less than 2 lanes / moins de 2 voies
loose or stabilized surface, all weather ... gravier, aggloméré, toute saison		
loose surface, dry weather ... de gravier, temps sec		
unclassified streets ... rues hors classe		
cart track ... de terre		
trail, cut line or portage ... sentier, percée ou portage		

FOR COMPLETE REFERENCE SEE REVERSE SIDE POUR UNE LISTE COMPLÈTE DES SIGNES, VOIR AU VERSO

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CONVERSION SCALE FOR ELEVATIONS
Metres 30 20 10 0 50 100 150 200 250 300 Mètres
Feet 100 50 0 100 200 300 400 500 600 700 800 900 1000 Pieds

CONTOUR INTERVAL 100 FEET
Elevations in Feet above Mean Sea Level
North American Datum 1927
Transverse Mercator Projection

Pour tout renseignement concernant les repères et bornes altimétriques, s'adresser aux levés géodésiques, Direction des levés et de la cartographie, Ottawa.

ÉCHELLE DE CONVERSION DES ALTITUDES

ÉQUIDISTANCE DES COURBES 100 PIEDS
Altitudes en pieds
Système de référence géodésique nord-américain, 1927
Projection transverse de Mercator

Établie par la DIRECTION DES LEVÉS ET DE LA CARTOGRAPHIE, MINISTÈRE DE L'ÉNERGIE, DES MINES ET DES RESSOURCES. Mise à jour à l'aide de photographies aériennes prises en 1980. Vérification des ouvrages en 1981. Publiée en 1983.

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I.N. N.G.
1°58' or/ou 35 Mils
27°22' or/ou 487 Mils
Grid north — Nord du quadrillage
Magnetic north — Nord magnétique

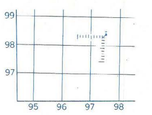
Use diagram only to obtain numerical values
APPROXIMATE MEAN DECLINATION 1982
FOR CENTRE OF MAP
Annual change decreasing 5.1'

N'utiliser le diagramme que pour obtenir les valeurs numériques
DÉCLINAISON MOYENNE APPROXIMATIVE
AU CENTRE DE LA CARTE EN 1982
Variation annuelle décroissante 5.1'

ONE THOUSAND METRE
UNIVERSAL TRANSVERSE MERCATOR GRID
ZONE 7
QUADRILLAGE DE MILLE MÈTRES
TRANSVERSE UNIVERSEL DE MERCATOR

GRID ZONE DESIGNATION: DÉSIGNATION DE LA ZONE DU QUADRILLAGE:	100 000 m SQUARE IDENTIFICATION / IDENTIFICATION DU CARRÉ DE 100 000 m
7V	FT

EXAMPLE OF METHOD USED TO GIVE A REFERENCE TO NEAREST 100 METRES
EXEMPLE DE LA MÉTHODE EMPLOYÉE POUR FIXER DES REPÈRES À 100 MÈTRES PRÈS



REFERENCE POINT / POINT DE REPÈRE	CHURCH - ÉGLISE	(as above) (ci-dessus)
EASTING: Read number on grid line immediately to left of point: ABSCISSE: Noter le chiffre de la ligne du quadrillage immédiatement à gauche du repère:		97
Estimate tenths of a square from this line eastward to point: Estimer le nombre de dixièmes du carré entre cette ligne et le repère en direction est:		5
		975
NORTHING: Read number on grid line immediately below point: ORDONNÉE: Noter le chiffre de la ligne du quadrillage immédiatement en dessous du repère:		98
Estimate tenths of a square from this line northward to point: Estimer le nombre de dixièmes du carré entre cette ligne et le repère en direction nord:		4
GRID REFERENCE:		984
RÉFÉRENCE AU QUADRILLAGE:		975984

Nearest similar grid reference 100 000 metres (about 63 miles)
La prochaine référence similaire est à 100 000 mètres (environ 63 milles)

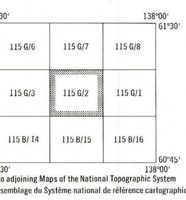


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Tableau d'assemblage du Système national de référence cartographique

CONGDON CREEK
115 G/2
EDITION 3 ÉDITION

Energy, Mines and Resources Canada / Énergie, Mines et Ressources Canada