YEIP 01-075

TOTAL MAGNETIC FIELD and GRADIENT SURVEY of the FIFTYMILE PLACER PROPERTIES

YMIP 01-077
YMIP 01-075
YMIP 01-076

Jan/2002

TECHNICAL EVALUATION REPORT

FOR

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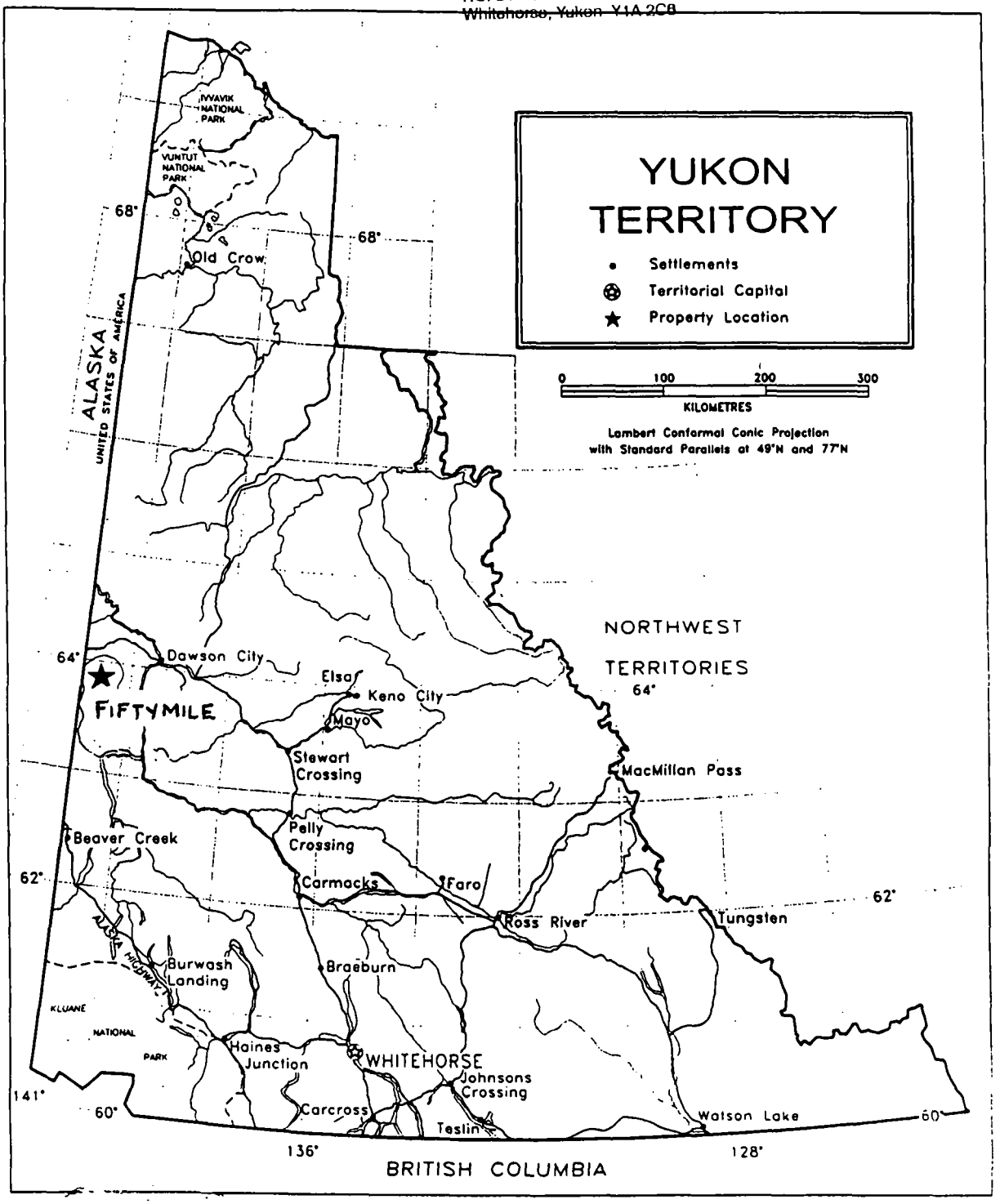
TOTAL MAGNETIC FIELD AND GRADIENT SURVEY OF THE FIFTY MILE PLACER PROPERTIES, FIFTY MILE RIVER AREA, YUKON TERRITORY

ALBERT RUDIS

CLAIMS

RAL 1-30 (P44499 - P44528)
RALA 1-2 (P45044 - P45045)
BON 22-52 (P44394 - P44424)
BON 53-54 (P44497 - P44498)
CHR 1-24 (P44529 - P44552)
CHER 25-26 (P45042 - P45043)
AL 1-2 (P45026 - P45027)

NTS: 115 N 15
NTS: 115 N 16
Mining District: Dawson, YT.
Date: January, 2002



AL RUDIS	FIFTY MILE CREEK
PROPERTY LOCATION	MINING DISTRICT: DAWSON
	NTS: 115 N/15, 16 SCALE 1: 6 000 000
	DRAWN BY: HDS
	DATE: 2000.10.16 FIGURE: 1

SUMMARY

A total magnetic field survey was conducted on the 50 Mile Placer Properties in the Fifty Mile River area, western Yukon Its prime purpose was to locate auriferous gravels in the creek bed A gradient survey was concurrently conducted to help delineate placer from hard rock anomalies, and to better locate the placer anomalies Significant indication of bedrock structure was anticipated due to the location and extent of the survey lines

The survey was conducted by a one man survey crew between July 26 to August 11, 2001 A separate crew of three to four cut and flagged the lines between July 8 and July 31 The crews covered 95 8 line km on 192 lines spaced at 50 m, plus 128 lines spaced at 40 m Surveying was done at a 10 m station spacing over a flagged grid centered close to creek center line 89 6 km of this line also included gradient readings Approximately 83,000 data points were sampled

A pair of proton precession magnetometers were utilized One instrument served as a base station and the second as the field unit All field data was corrected for temporal geomagnetic variation using the base station The survey identified several anomalies which could be caused by placer magnetite sources and/or bedrock

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1 0 INTRODUCTION

This report covers ground total magnetic field and gradient surveys on Ralph Nordling and Al Rudis's 50 Mile Creek placer properties It was prepared by Albert Rudis with consultation and assistance provided by Aurora Geosciences Ltd , and Shawn Ryan A total of 95 8 line km on 192 lines spaced at 50 m, plus 128 lines spaced at 40 m were surveyed between July 8 and August 11, 2001 Surveying was done at a 5 m station spacing over a flagged grid centered close to creek flow 89 6 km of this line also included gradient readings Approximately 83,000 data points were sampled The surveys were conducted to locate auriferous placer deposits associated with magnetite along the creek, and to define and distinguish hard rock anomalies from placer anomalies This report describes the survey specifications and operations, data and contains an interpretation of the results

2 0 LOCATION AND ACCESS

The 50 Mile Creek placer properties are located within NTS 115N/15 and 115N/16, within UTM 7073 000N to 1090 000N and 518 000E to 533 000E (NAD27) in the Fifty Mile River area of the western Yukon Territory They include the 50 Mile River and the locally named Cheryl, Ralph, and Al Creeks The properties are located approximately 55 km southwest of Dawson City, Yukon (Figure 1) Primary access is by helicopter Limited access is by truck up to the Matson Creek road, and then to the old Mar West mining access road that runs along the ridge line leading to Hart Mountain Access from the end of this road is within about 1 mile from the top of the target area From there a difficult transit can be made by foot Some assist may be possible by 4 wheeler

3 0 PROPERTY

The surveyed properties consists of 121 un-surveyed placer claims staked under the Yukon Placer Mining Act in the Dawson Mining District, Yukon Territory Claim information is summarized below

RAL 1-30 (P44499 - P44528)
BON 22-52 (P44394 - P44424)
CHR 1-24 (P44529 - P44552)
AL 1-2 (P45026 - P45027)
RALA 1-2 (P45044 - P45045)
BON 53-54 (P44497 - P44498)
CHER 25-26 (P45042 - P45043)

Claim locations as shown on government claim maps and the location of the survey grids are shown in Figure 2

4 0 PHYSIOLOGY AND PLACER GEOLOGY

The geology and physiology of the area containing the Property has been described by Cockfield (1921) and Gordey and Makepiece (1999) The property is located in the Yukon Plateau, south of the Tintina Trench at elevations ranging from 600 to 1000 m The area is subject to continental climatic conditions with short, warm summers and cold winters Temperatures range from 15 to 25° C during the summer period and down to -50° C during the coldest months of winter

The local geology of the area is described in DIAND Open File 1996-1G, specifically in its coverage of 115N/15,16 It states in general

"Northern Stewart River map area southwest of the Tintina Fault Zone is underlain by two distinct lithotectonic assemblages 1) medium to high grade, polydeformed metasedimentary and met-igneous rocks of the Yukon-Tanana Terrane, and 2) weakly deformed and metamorphosed rocks to the Slide Mountain Terrane These two assemblages are both mainly Paleozoic in age in the study area, and were juxtaposed by regional scale thrust faults in Early Mesozoic time, during a period of terrane accretion that affected much of the northern Cordillera A variety of younger (post-accretion) volcanic, plutonic and sedimentary rocks are also present in the study area "[1]

The project area falls within the Yukon-Tanana Terrane as described in this Open File

Major pertinent rock units shown in the Open File follows An extract from geologic mapping of the Open File is given at figure 6

1Kva andesite flows and breccias (late Cretaceous)

DMS medium to coarse grained mica schist Commonly garnetiferous amphibolite, minor quartzite (late Devonian)

1Kgdr massive hornblende-biotite granodiorite (late Cretaceous)

1Kst sandstone, pebble conglomerate, minor shale, commonly coal-bearing (late Cretaceous)

DMgg moderately to strongly foliated K-feldspar augen-bearing quartz monzonitic to granitic gneiss (S Fiftymile Batholith) (early Mississippian)

EJQM massive to weakly foliated biotite and biotite-muscovite quartz monzonite and granite, includes abundant pegmatite and aplite phases (early Jurasic)

DMc marble (late Devonian to early Mississippian)

1Kgdr massive hornblende-biotite granodiorite (late Cretaceous)

Psqm rusty weathering quartz muscovite schist (late Permian)

Dmgdg massive to strongly foliated dioritic to granodioritic gneiss (N Fiftymile Batholith) (early Mississippian)

Local structure is complex and has a general scarcity of exposures Outcrops do occur along the 50 Mile, Ralph, Cheryl, and Al creek banks and canyons associated with fault related uplift Bedrock samples are available from a series of Cat pit exploration carried out by Nordling and Rudis in 1999 A regional scale thrust fault dominates the 50 Mile Creek along its left limit The valley of the 60 Mile River in the central and western part of the Sixtymile District follows a northeast-trending graben structure that has downdropped Cretaceous volcanic and sedimentary rocks against metamorphic rocks of the Nasina and Klondike Schist Cretaceous strata are cut by steeply-dipping normal faults All of the smaller bodies of greenstone and/or ultramafic rocks in the larger area are thought to mark thrust faults

Metamorphosed mafic rocks including amphibolite and ultramafic rocks belonging to the Nisling, Nasina, and Slide Mountain assemblages are present, and these likely play a major role in area mineralization These rocks appear to strike east-west based on their aeromagnetic signature In particular, major metamorphic structure trends east west, roughly parallel to the areas major thrust fault For example Schist at the mouth of Al creek strikes 270T, and appears to be synclinal, steeply dipping, but gently plunging West Where the property is underlain by orthogneiss of the Fifty Mile Batholith, the intrusive rocks have a very subdued aeromagnetic signature Magnetic anomaly, outcrop, and float, however, show that metamorphosed and major intrusion of ultramafic rock is widespread throughout the project area In particular there are indications of massive mafic intrusion beneath the 50 Mile valley Residual magnetite in placer deposits throughout the area are likely from ultramafics

Several significant hardrock showings occur in the area The Butler Showing (115N42) is 7 km NW and contains vein hosted Pb-AgAu mineralization in metasediments The Connaught Showing (115N40) consists of galena and sphalerite with minor sphalerite, tetrahedrite and boulangerite in a series of northeast striking quartz veins along the contact between the Fifty Mile Batholith and the intruded mafic metamorphic rocks Shipments of hand cobbed ore were made from both showings during the 1966 and 1976 which averaged approximately 2200 g/t Ag and 1 0 g/t Au

Area MinFiles include

1 *MINFILE #115N 039* North-northeast striking, mesothermal (?) quartz-carbonate veins with major Ag, Pb and minor Au, Zn 63-55-29N 140-48-52W
2 *MINFILE #115N 040 (further discused above)* Lenses of galena and

arsenopyrite with minor sphalerite, tetrahedrite and boulangerite in northeast-striking quartz veins Major Ag, Pb and minor Au, Zn 63-54-50N 140-47-46W

3 *MINFILE #115N 042(further discussed above* An epidote-magnetite-diopside skarn containing minor chalcopyrite and pyrrhotite developed at the contact between a marble layer and the intrusion (Dms and 1Kgdr) Major Cu, Ag, Pb, Au 63-54-58N 140-34-35W

4 *MINFILE #115N 043* 300 m long skarn with traces of malachite and old workings 63-53-26N 140-37-40W

5 *MINFILE #115N 044* Late Cretaceous quartz pebble conglomerate (unit 1Kst), with one specimen containing a small rounded flake of gold The conglomerate has a thickness of 15-30 m and outcrops over approximately 0 8 km It is capped by, and may extend under, andesitic volcanic rocks (unit 1Kva) No mineralization was found in 1973 by Silver Standard Paleoplacer with Au as the major commodity 63-53-18N 140-25-10W

6 *MINFILE #115N 119* Another outcropping of unit 1Kst defined in MINFILE #115 044 63-55-10N 140-25-32W

7 *MINFILE #115N 123* A thrust -fault-bounded lens of serpentinite occurs along the fault to the east of the occurrence A vuggy quartz carbonate vein with silver and minor gold, copper and no visible sulphides, outcrops on the hanging wall of the fault 63-58-31N 140-53-15W

8 *MINFILE #115O 158* Traces of disseminated galena within a very rusty weathering band of pyritic muscovite-quartz schist (Psqm) of Klondike Schist assemblage 63-56-58N 140-42-48W

Cockfield (1921) describes the regional placer geology The property occurs in a large area of the western Yukon which escaped Quaternary glaciation Placer gold occurs in pre-glacial valley-bottom gravels and in benches or terraces along the streams Gravels are described as poorly sorted and consisting of cobbles and pebbles (to 10 cm) of metamorphic rocks overlain by loess and lesser sand and gravel The bench deposits occur at a higher elevation and have a lower average gradient indicating that the present stream channel gravels formed through reworking of older deposits and down-cutting associated with regional uplift

Lowey (1999) states that "previously unrecognized glacial erosional landforms (i e cirques, u-shaped troughs, truncated spurs and aretes, in order of increasing doubt) and glacial depositional landforms (i e , an end moraine and possibly ground moraine occur in the Fifty Mile Creek area, west of the pre-Reid Codilleran glacial limit The cirques and end moraine, representing the best evidence of glaciation, are similar to landforms in the adjacent Yukon-Tanana uplands of Alaska that formed during the Eagle glaciation (>40Ka, or Reid in age) Glaciation caused climate-controlled variation in runoff and cycles of aggradation and incision in the Fifty Mile Creek drainage This resulted in the formation of upper and lower-level terraces along the Fifty Mile Creek and its tributaries The terraces, composed of sandy, muddy, gravel that is locally derived, are fluvial in origin Placer gold occurs along Fifty Mile Creek, several tributaries, and in the lower-level terraces The upper-level terraces are potentially gold bearing " In 1999, Dr Lowey's pan sample taken

at a placer exploration test pit 2 feet above bedrock on Cheryl Creek showed a gold content of 0 024oz per cubic yard His report also describes the gravel column and heavy mineral constituents from selected test pits in the project area

A Total Magnetic Field Survey of the Cheryl Creek Property, Fifty Mile River Area, Yukon Territory, A Report for Al Rudis by Amerok Geosciences, Ltd , dated October 24, 2000 was conducted on Cheryl Creek in 2000 This survey was conducted as part of the Yukon Territorial Governments mining incentive projects YMIP 00-64 and YMIP 00-66 It concludes that the survey indicated the location of several anomalies which could arise from placer magnetite concentrations It recommends that these anomalies be investigated on the ground and tested by excavation

5 0 SURVEY GRID

The geophysical surveys were conducted on cut and flagged grids centered close to the main stream flow of 50 Mile River, Ralph Creek and Al Creek There were two base lines on the 50 Mile River 50 Mile BL 0E runs east with lines at 50 m intervals and ends at BL6300E 50 Mile BL 0W runs west with lines at 50 m intervals from a common start point with BL 0E and ends at 2500W Ralph Creek also has two base lines Ralph BL 0N runs north with lines at 40 m intervals and ends at 3080N Ralph BL 0W runs west with lines at 40 m intervals and ends at 2040W Al Creek has one baseline, Al BL 0S that runs south with lines at 50 m intervals and ends at 800S Several azimuth changes and offsets occur on the 50 Mile River and Ralph Creek grids because of the overall length and direction changes in the stream flow There are a total of 95 8 line km on 192 lines spaced at 50 m, plus 128 lines spaced at 40 m Surveying was done at a 5 m stations Approximately 83,000 data points were represented in the total grids, and were read Lines were cut, hip chained, and not slope corrected

6 0 PERSONNEL AND EQUIPMENT

The physical surveys were conducted by

Shawn Ryan
c/o Box 887
Dawson City, YT YOB 1 GO

Computer generated maps and consulting were provided by

Aurora Geosciences
Box 5808
Whitehorse, YT Y1A 5L6

Analysis and report preparation was conducted by

Albert Rudis (with the consultation and assistance of Aurora Geosciences Ltd , and Shawn Ryan)
Box 887
Dawson City, YT YOB 1 GO

Shawn Ryan utilized

Two Scintrex Proton Magnetometers - ENVIMAP model

The geophysical operator, Shawn Ryan, spent a total of 17 days on the property

The following people worked under contract to cut grid lines, sample, and dig hand pits

Claude Audet, GPO, Dawson City, Yukon
Marcus Leschied, GPO, Dawson City, Yukon
Scott Flemming, GPO, Dawson City, Yukon

7 0 SURVEY SPECIFICATIONS

The magnetometer survey was conducted according to the following specifications

Station spacing, 5 m

Base station Installed on the survey grid and cycled at 5 s throughout the survey

8 0 MAGNETIC FIELD THEORY

Magnetic field theory is well described in standard texts (e g Telford et al 1990) In a placer setting, magnetite derived from bedrock weathering is concentrated in the main channel of a creek or river (thalweg) where the water flow has the highest velocity and greatest turbulence As a result, minerals with high specific gravity (magnetite, ilmenite, gold, etc) are preferentially concentrated in this region of the stream bed as material with lower specific gravity is winnowed from the sediment High concentrations of "black sand" (magnetite, ilmenite, chromite) are often recorded in auriferous pay streaks where the stream bed has remained relatively immobile for some period, permitting hydraulic concentration to build up a significant volume of these minerals

The materials comprising black sand are magnetically susceptible Magnetite has a very high magnetic susceptibility of 1200-19200x103 SI units and ilmenite ranges

from 300-3500x10-3 SI units Average magnetic susceptibilities for sedimentary, igneous (excluding ultramafic) and metamorphic rocks are 0-18, 3-160 and 0-70 x10 3 SI units and the magnetic susceptibility of fluvial sediments is in the range 0-2x10-3 SI units There is consequently a susceptibility contrast between gravels with elevated concentrations of black sand, and both bedrock and average gravels Most placer magnetic field anomalies are of low amplitude, in the range of 50 to 200 nT Some placer gold deposits, however, have proved viable with anomalies in the range of 20 nT

The amplitude of the response is proportional to the magnetite content but does not influence the shape of the anomaly Neither the thickness nor depth to top can be determined accurately without complementary geophysical techniques The total magnetic field data is best used for indicating the surface projection of magnetic sources which may be of potential economic interest and is of comparatively little use in deriving information on the geometric parameters of the source body

9 0 RESULTS

The following plots at are appended to this report in the back pockets

Total magnetic field stacked profile maps

Total magnetic field colored contour maps

Total magnetic field vertical gradient maps

Total magnetic field black and white contour maps

Map titles and scales are

Ralph Creek	(1 5,000)	
50Mile Creek East	(1 5,000)	
50 Mile Creek West	(1 5,000)	
Al Creek	(1 2,500)	There is no gradient map for Al Creek

Each plot shows the survey grid in nominal (i e uncorrected) coordinates with the small ticks indicating the reading station location and the larger ticks at 50 m intervals coincident with the station labels The stacked profiles display the total magnetic field (in red) with an increasing field trending above the survey line The total field contour map displays the total field amplitude according to a blue to red color scheme illuminated from a shallow easterly sun angle to highlight total magnetic field trends parallel to the stream drainage The

colored total magnetic field gradient maps help center and define anomalies The black and white contour maps provide increased detail and an added perspective to the anomalies

In General

- All total magnetic field stacked profile surveys identify a series of anomalies in the creek beds which could be caused by concentrations of placer magnetite Many of these lack flanking troughs suggesting that the deposits are deeper than they are thick
- There are two definitive ultra-mafic like anomalies One is on upper Ralph Creek centered at about L1000E (map highlight A) It shows about a 1500 gamma rise with a gradient range of about 200 gamma The second is on the 50 Mile Valley East centered at about L5700E (map highlight A) It shows about a 800 gamma rise with a gradient range of about 525 gamma Both trend approximately NW They run about 500 meters on their long axis, with 250 meters on their high anomaly and 250 meters on their low anomaly
- These probable ultra-mafic intrusives are significant in that they can be used to benchmark other potential ultramafics They can help indicate whether an elongated anomaly might be an ultramafic or a magnetite laden stream channel
- This is particularly important for the 50 Mile Valley which has several large anomalies that could be either hard rock or placer And in the 50 Mile, both the regional thrust fault that defines its course, and the stream flow are in the same NW direction
- Continuity of grid in both the 50 Mile Valley and Ralph Creek has allowed the location of previously run cat pits, and of hand pits in relation to possible stream channels This allows a check of real values against possible stream concentration For example one pit run on Ralph Creek that correlates to an indicated stream channel runs between $15 to $20 per yard at pay
- The 96 km of 50 Mile Valley, Ralph Creek, and Al Creek grids are contiguous Together with the Cheryl Creek Total Magnetic Field Survey that was run in 2000, they cover all but 2 miles of the 15 miles of 50 Mile Placer Property This extent and continuity of magnetic survey contributes to the survey becoming a continuing, more valuable indicator for mining As it stands now, one can only infer which anomalies indicate a stream channel, and which have the best potential for profit As drilling, bulk testing and mining is carried out across the anomalies, actual data can indicate which have the greatest potential

50 Mile Valley East:

- Overall trend 50 Mile Valley East covers the 50 Mile grid from L2250E to L6300E The stacked profile, contour, and gradient maps all show a general linear magnetic trend that parallels creek flow and could represent magnetic stream channels The area, however, is also in a major thrust fault zone that parallels the Creek valley Some of the larger anomalies could be intrusive, in particular ultramafics, samples of which shows up in float and in outcrop A likely ultramafic

is centered at map highlight A The less definitive potential ultramafic/stream channel anomalies are high enough (in the range of 100 to 400 gammas) to be minor or deep seated ultramafic, but also small enough to be a stream channel with major magnetite concentration In the 50 Mile area you have both ultramafics, and, based on previous work, an abundance of magnetite in the gravels Both options are therefore possible It is not possible to determine which is present without drilling or trenching to bedrock

- Map highlight A indicates the location of a probable ultramafic intrusion It is about 500 meters long It is centered at about L5700E and trends NW It shows about a 800 gamma rise with a gradient range of about 525 gamma This strong negative gradient could indicate a possible reversal of polarity and a plunging structure attitude It and another probable ultramafic intrusion on Ralph Creek are benchmarks against which less definitive ultramafic-like anomalies can be evaluated

- Map highlight B shows an elongated anomaly centered at L3550E It is about 750 m long trending E/W The gradient map shows little adjacent large negative gradient It shows about a 200 gamma rise, and maximum gradient range of about 20 It does not match well with the area ultramafic models from either Ralph Creek or at A

- Map highlight C shows an elongated anomaly centered at L2700E It is about 400 m long trending 300T The gradient map shows a 100 m long possibly associated low gradient with a range of about 35 gamma The anomaly shows about a 400 gamma rise Its gamma ranges are too low to match well with the area ultramafic models from either Ralph Creek or at A

- Map highlight D shows an elongated anomaly centered at L4750E It is about 300 m long trending E/W The anomaly shows about a 100 gamma rise The gradient map shows a possible extensive associated low, but its mostly outside the grid and is computer generated There is a small associated low gradient with a range of about 40 gamma within the grid This anomalies gradient is not defined well enough, and the gamma ranges are too low to match well with the area ultramafic models from either Ralph Creek or at A

- A possible overall stream channel or thrust fault zone intrusive line may be indicated as running from anomaly B to C to D Anomaly B is in line with and is in close proximity to a large, 1400 m, NW trending anomaly covered below as 50 Mile Valley West Map highlight A

- Possible tributary influence The location where tributaries enter the grid is shown on the stacked profiles for 50 Mile Valley East and West There is a potential for magnetite enrichment just below where the major tributaries enter the 50 Mile Valley There is also the potential that magnetite entering the main 50 Mile creek

flow could be diffused The maps show that in each case where major tributaries and the minor pups enter the 50 Mile Valley, enrichment could be a factor in the downstream anomaly

- Transition zone The 50 Mile Creek leaves its canyon and transits from essentially degrading to an aggrading at about L3300 east Multiple channels and or braided channels can result from the change in stream flow Map highlight B begins just at this transition zone The colored contour map and gradient show some trends that might be defined as a remnant braided stream channel, but they are poorly defined The stacked profile does show possible smaller multiple channels from L5800 to L6300 These show up at 20 nT/mm and they may or may not be better defined at a smaller scale One possible channel shows up just below the major left limit pup entering at L6150E If it is a channel, it could have enrichment potential from the pup

- Grid wide, there could be other smaller, potential channels that may show up better on the stacked profile if the 20nT/mm scale used were made more sensitive

50 Mile Valley West:

- Overall trend 50 Mile Valley West covers the 50 Mile grid from L2200E to L2250W Like the 50 Mile Valley East, the stacked profile, contour, and gradient maps all show a general linear magnetic trend that parallels creek flow and could represent magnetic stream channels The area, however, is also in a major thrust fault zone that parallels the Creek valley Some of the larger anomalies could be intrusive, in particular ultramafics, which shows up in float and in outcrop A likely ultramafic is shown on 50 Mile Valley East Grid, centered its map highlight A The less definitive potential ultramafic/stream channel anomalies are high enough (in the range of 100 to 400 gammas) to be minor or deep seated ultramafic, but also small enough to be a stream channel with major magnetite concentration In the 50 Mile area you have both ultramafics, and, based on previous work, an abundance of magnetite in the gravels Both options are therefore possible It is not possible to determine which is present without drilling or trenching to bedrock Hardrock, rather than stream channel influence is particularly possibility in the vicinity of Al Creek Here, extensive pyrite laden rusted schist outcrop, indications of pegmatite, and ultramafic float and geochem signature indicate intrusive influence

- Map highlight A shows a major elongated anomaly centered at L2000E It is about 140 m long trending 300T The gradient map shows little adjacent large negative gradient The anomaly shows about a 400 gamma rise, and a 25 gamma gradient spread It does not match well with the area ultramafic models from either Ralph Creek or at 50 Mile Valley East It lies just below Cheryl Creek which may or may not contribute to its magnetic signature

- Map highlight B shows an elongated anomaly with its high point centered at L250E It is about 750 m long trending generally 300T The gradient map shows no adjacent large negative gradient The anomaly shows about a 200 maximum gamma rise, and maximum gradient range of about 20 It does not match well with the area ultramafic models from either Ralph Creek or the 50 Mile Valley East

- Map highlight C shows an circular anomaly with its high point centered at L850E Its circular shape can not be relied on as it cut off by the end of the grid and is computer generated It is about 200 m long trending generally NW The anomaly shows about a 600 gamma rise The contour maps show a more circular than elongated low, but this is mostly outside the grid and is computer generated There is a small 75 m low to the NW The gradient range is about 25 gamma The 600 gamma rise places the anomaly closer to an intrusive model than a stream channel While there is no major associated low, the circular steep-sided shape make it a possible intrusive, possibly an ultramafic pipe There is ultramafic float coming from in the area, and ultramafic signatures in some of the geochem The anomaly lines up with map highlight A On the other hand map highlight A also generally lines up with highlight B Adjacent geochem is hard to get because of the swampy ground cover

- Map highlight D shows a group of elongated anomalies centered at L0 It runs 1100 m long, NW paralleling the 50 Mile Creek The maps all indicate that these anomalies could represent parallel stream channels running quite high from 100 to 400 gammas On the other hand, the black and white contour map and the gradient map suggest that they might be more related to a magnetic folded structure The bedrock underlying the gravel is basically a mica schist which is deeply dipping, rusty, locally contains pyrites, and has anomalous metal values It is locally cut by small mafic dikes Its association with an underlying thrust fault zone intrusive can not be ruled out Neither a bedrock controlled anomaly, nor a magnetic stream channel anomaly should be excluded in evaluating this area And a combination of both is possible

- Map highlight E shows a curving anomaly which begins at L500E trending NW and ends trending nearly E/W It shows up well on the contour maps The anomaly has a high of about 250 gamma, but it decreases in intensity to the East It is about 500 m long There are no apparent associated low gradients It does not match well with the area ultramafic models from either Ralph Creek or the 50 Mile Valley East

- Map highlight F at L600W shows two highs separated a small low The major highs cover about 200 m, and the general trend along the line another 300m The computer shows these as largely circular anomalies The maximum of the two highs is 330 gamma and 180 gammas This anomaly does not match well with

the area ultramafic models from either Ralph Creek or the 50 Mile Valley East It is interesting in that it is the only readily apparent anomaly that trends NE rather than NW or E/W, and against the Creek flow It also occurs in an area that shows very little other magnetic anomaly It may be a hard rock feature

- Map highlight G All maps indicate an elongated anomaly with its midpoint at about L1600W It is runs from just below Ralph creek (about L2200W) and continues down to L1000W It trends generally E/W, parallel the 50 Mile Creek, and runs at about 20 to 40 gamma

- Map highlights H and I The eastern end of the 50 Mile Valley West Grid from L700W to L2050W has a subdued signature relative to the rest of the 50 Mile Valley Grid Much of the float found in Al Creek consists of granitic boulders which can be traced several km upstream An area to the East of Al Creek (map highlight I, centered at L200E), has a similar subdued signature Where the thin muck has been eroded, the exposed surface in the area consists largely of granititic material, with isolated ultramafic boulders In stream float indicates the possibility of granitic pegmatite entering Al creek from a source within 1 km upstream This and other area geochem raises the possibility of tungsten and tantalum as possible byproducts from a placer operation on or related to Al Creek, and possibly to highlight areas H and I It is possible that the subdued signature is related to the coluvium moving into the 50 Mile from the South, and/or a local granitic intrusive

- Map highlight J begins at pit Al-4 Grid L100W was set with North (+) and South (-) components It was not possible to get readings past L100W N because the intensity of low gradient beginning at that point threw the magnetometer off-line The high point of the gradient was centered at Pit Al-4 The gradient at this point leads to a high of over 700 gamma It could correlate with a major high passing through L150W 70S It might also correlate with the high at Pit Al-1 If this represents a magnetic stream channel, it would be a major one If it is hardrock related, the intensity of the low gradient and its related high, and the areas presence of pegmatite and some high geochems make this a potential target for location of a source of placer Au and other minerals

- A possible overall stream channel or thrust fault zone intrusive line may be indicated as running from anomaly A to 50 Mile Creek map highlights B, C and D

- Possible tributary influence The location where Cheryl Creek, Ralph Creek and other tributaries enter the grid is shown on the stacked profiles for 50 Mile Valley East and West There is a potential for magnetite enrichment just below where the major tributaries enter the 50 Mile Valley There is also the potential that magnetite entering the main 50 Mile creek flow could be diffused The maps show that in each case where Cheryl Creek, the other major tributaries and the minor pups enter the 50 Mile Valley, enrichment could be a factor in the downstream

anomaly

- Grid wide, there could be other smaller, potential channels that may show up better on the stacked profile if the 20nT/mm scale used were made more sensitive

Al Creek:

- Overall trend The Al Creek grid extends 800 meters south up the Creek Its grid has a subdued magnetic signature Much of the float found in Al Creek consists of granitic boulders which can be traced several km upstream In stream float indicates the possibility of granitic pegmatite entering Al creek from a source within 1 km upstream This and other area geochem raises the possibility of tungsten and tantalum as possible byproducts from a placer operation on or related to Al Creek It is possible that the subdued signature is related to the sources to the South and/or a local granitic intrusive

- Creek bottom Given the high sensitivity used in the stacked profile and contour maps, there is little suggestion of a magnetite channel within the All creek stream channel

- Creek banks There is a possibility of an N/S trending magnetic channel or other structure paralleling the creek on both banks There is magnetite concentrated in the hand pits (P1-P4) sampled on both flanks of the creek

- Map highlight A is a 75 gamma circular anomaly centered at L600S It is about 50 meters wide

Ralph Creek:

- Overall trend The Ralph Creek grid extends North 3080 m, and along a West fork for 2040 m Its stacked profile, contour, and gradient maps all show a linear magnetic trend that parallels creek flow and could represent magnetic stream channels The west grid from L 600E upstream, however, is dominated by a probable ultramafic-type anomaly This appears to obscure stream channels beyond that point The upper North/South grid splits off to a more Eastward branch at I2380N There is evidence (including float and geochem) of ultramafics feeding this branch as well as the West branch of the Creek These ultramafics probably generate the magnetite that contributes to the well-defined magnetic channels on the grid

- Map highlight A indicates the location of a probable ultramafic intrusion It is about 1100 meters long It is centered at about L13600E and trends NW It shows

about a 1500 gamma rise with a gradient range of about 200 gamma This strong negative gradient could indicate a possible reversal of polarity and a plunging structure attitude It and another probable ultramafic intrusion on the 50 Mile Valley East grid are benchmarks against which less definitive ultramafic-like anomalies can be evaluated Ultramafic signature is backed up by outcrop, float and geochem This area would serve as a feeder source for magnetite to define the magnetic stream channels Potential magnetic channels from the West branch grid L600E, does not show up but is probably obscured by the strength of the ultramafic

- Map highlight B shows an broadened anomaly centered between L2240N and L2480N It may (but may not) represent a build up of magnetite below where the North and West branches come together

- Map highlight C shows an elongated anomaly running from L0N to 3080N It is defined well on all maps, but shows up best on the colored contour map The stacked profile sensitivity interval of 25 nT, tends to subdue the anomaly which might be more defined at 10 nT Generally two potential parallel channels are shown

- Map highlight D shows a broadened anomaly at the top of the North grid (L3080N) The main creek forks off at this point The broadened anomaly appears associated with the Eastern fork

- Map highlight E shows possible stream channels extending from about L600E to the North/South grid They might be better defined with a more sensitive grid setting than the 10 gamma interval used.

10 0 CONCLUSIONS AND RECOMMENDATIONS

The results of the total magnetic field survey indicate the location of several anomalies which could arise from placer magnetite concentrations

50 Mile Valley East Recommendations (In the order of greatest pay potential):

- Drill or trench the targets at B or C to determine if they are placer or hard rock related

- If they do not have placer values, drill or trench the anomaly indicated in the transition zone In particular look at the possible channel that could be enriched by the major left limit pup entering at L6450E

- As time and resources allow, drill or trench the target at D to determine if it has

placer potential

- As time and resources allow, evaluate the potential of target A as a conduit of mineralization for placer gold sources

50 Mile Valley West Recommendations (In the order of greatest pay potential):

- Put first priority on drilling or trenching the target at A to determine if is placer or hard rock related
- If it does not have placer values, drill or trench the target at B to determine if is placer or hard rock related
- If B does not have placer values, drill or trench the target at J to determine if is placer or hard rock related If J is hardrock related, when resources are available, evaluate it as being related to a source of placer gold and other minerals
- If J does not have placer values, drill or trench the target at E to determine if is placer or hard rock related
- If E does not have placer values, drill or trench the target at G to determine if is placer or hard rock related
- If G does not have placer values, drill or trench the target at D to determine if is placer or hard rock related
- Consider H and I (and Al Creek in general) placer potential for by byproduct tungsten, tantalite and related minerals As future work, time, and resources allow, drill and trench to locate the source of tungsten tantalite and related valuable minerals
- As time and resources allow, drill or trench the target at C to determine if it has placer potential If it is not placer related, evaluate its potential as a conduit of mineralization for placer gold sources
- As time and resources allow, drill or trench the target at F to determine if it has placer potential If it is not placer related, evaluate its potential as a conduit of mineralization for placer gold sources

Al Creek Recommendations (In the order of greatest pay potential):

- Drill and trench in the creek bottom to determine gold potential
- Evaluate the results of pits placed in the banks against potential anomaly to determine the best place for further trenching or drilling

- Consider the Al Creek placer potential for by byproduct tungsten, tantalite and related minerals

- As future work, time, and resources allow, drill and trench to locate the source of tungsten tantalite and related valuable minerals The first target in this evaluation should be the anomaly at A

Ralph Creek Recommendations (In the order of greatest pay potential):

- As soon as resources allow conduct a bulk test in the vicinity of pits 100-2 and 100-6 and the lower portion of target C

- Trench and drill along C to determine correlation with channels and gold values

- Trench and drill along B to determine correlation with channels and gold values

- Trench and drill along E to determine correlation with channels and gold values

- Trench and drill along D to determine correlation with channels and gold values

- As time and resources allow, evaluate the potential of target A as a conduit of mineralization for placer gold sources

11 0 PITS AND SAMPLES

Overall:

- Four hand-pits were dug in 2001 Three were located on Al Creek, and one was located on Ralph Creek

  - These were excavated with pick and shovel, with the bottom few feet and limited bedrock run over a long tom A 1 5" pump feed the long tom
  - Hand-pits were hard to locate in that they had be on ground with either an exposed gravel contact, or there had to be reasonable assurance that bedrock could be safely reachable Class 5 set back requirements caused a particular problem in locating contacts far enough away from the creek
  - Sample size was controlled with 100 half buckets of gravel equaling one yard Allowance was made for boulders removed
  - All pits that went to bedrock encountered water with the pay This is a problem because the water tends to sluice out the gold before it can get in the shovel Accordingly all values taken by hand under water should be considered minimum value with some potentially significant amount lost to the process

- This season a long tom designed to be run without carpet was used. Results seemed way deficient in fine recovery compared to previous years when carpet was used There was of course, no problem with cross contamination
- All pits listed are located on the Total Magnetic Field Stacked Profile maps This allows comparison of results with potential stream channels

- Over 40 Cat dug pits were run in 1999 Several of these were not successful because of frozen ground problems

  - All samples were run over a long tom that used indoor/outdoor carpet to help catch fine gold and yet eliminate cross-contamination
  - Successful pits have been located on the grid Pits run, but not yet located on the grid are
    - 97-4, 97-5, 97-8, 97-10, 97-11, 98-17 Five of these returned no sample
  - Data (Attachment) shows depth of pit, weight of gold extracted, and whether or not samples were taken under water Type of bedrock is noted, and in some cases the bedrock has been assayed
  - Virtually all pits that went to bedrock encountered water with the pay This is a problem because the water tends to sluice out the gold before it can get in the shovel Accordingly all values taken under water should be considered minimum value with some potentially significant amount lost to the process
  - All pits that could be physically sighted in reference to the grid are located on the stacked profile maps
  - Location of other Cat pits is shown on Appendix B
  - Information on individual Cat pits is shown on Figure 5

- Sampling in 2001 consists of over 100 samples

Hand Pits 2001:

- <u>Al Pit #1</u>

  - Au two 2mm flakes, one 1mm flake, several smaller flakes - angular, flattened, not hammered, likely not transported far
  - 1 yard sample into bank
  - Bedrock (VR) blocky schist one foot below water table, gold count may be low
  - Abundant (about 10%) magnetite, and abundant tiny red garnets, possible ilmenite to 7mm pyrite to 3mm
  - Sparse scheelite under black light
  - At edge of major high to South
  - Boulders indicate stream flowed 203T towards bank (versus current Al Creek at 248T) This may indicate a separate stream channel

- Al Pit #2

  - A few specs of microscopic gold
  - ½ yard sample into bank
  - Bedrock and local outcrop a micaceous schist Strike 308T, Dip 80S
  - Very sparse magnetite, 3mm chunk of possible ilmenite
  - Bedrock sloped like it was once an exposed bank, and looks scoured
  - At edge of major magnetic high to South
  - Over a low

- Al Pit #3

  - Au one 2mm flattened, angular flake, few fs floated on heavies
  - 1 yard sample into 4 foot shaft heavy with boulders - *not to bedrock*, about 4 feet short
  - Local outcrop a schist Strike 310T, Dip 80S.
  - Medium black sands and garnet, tiny grains of olivine, 2 5" pieces of fiborous, serpentinized of actinolite
  - About 30 feet North of Pit 4
  - Boulders indicate stream flow from 260T
  - No recorded magnetic reading because of gradient

- Al Pit #4

  - Au 11 small flakes one 2mm flattened, angular flake, few fs floated on heavies
  - 1 yard sample into bank contact
  - At beginning of a very high, potentially significant, negative anomaly that blanked out the magnetometer 50 Mile Valley West highlight J discuses Sediment sample FM081003S 2 feet down into creek bottom 5 m East of pit and at lowest gradient point which leads to a high of over 700 gamma
  - BR rusted, pyritized partially decomposed schist Strike 319T, Dip 70S BR sample FM081991R
  - Small quartz vein with attached talc-like serpentinized schist Sample FM081002R
  - Medium magnetite and garnet, tiny grains of olivine, numerous possible ilmenite or similar dark mineral
  - Several 2 5" pieces of fibrous, serpentinized actinolite
  - About 30 feet South of Pit 3
  - Boulders indicate stream flow from 270T
  - No recorded magnetic reading because of gradient

- 100-6

  - Au two 3mm very chunky pieces, one 2mm chunky piece, 8 small flakes, 5fs
  - The largest piece Au has tiny magnetite cubes, and a larger pyrite cube enclosed within
  - Estimated gold value $10 to $15 per yard
  - Compared to Cat pit 100-2 which ran 11 5 grains per yard, very few fines were recovered with the carpet-less box Fines made up a major portion of the value of pit 100-2
  - Nine foot shaft begun four feet down in old Cat pit 100-6 (BR 13 feet below surface
  - Last two feet of shaft in water which had to be constantly bailed This likely decreased gold recovery
  - 1 2 yard sample taken beginning at approximately 5' above bedrock About two inches of bedrock taken
  - At 10 feet below surface shaft changes from large boulders to medium sized cobbles and pebbles with much fine grained alluvial Sediment samples to be checked later for fine gold content, were taken at 7 feet below surface (FM080607S), at 11' below the surface (FM080802S), and at 12' to 13' feet below surface (FM080902S)
  - The pit is close to the West valley slope The change from large boulders to cobbles at 10' down, may indicate the first 10' sloughs from the adjacent slope If so, this slide rock would have diluted the sample (taken beginning at 8' below) and depressed the Au per yard estimate

Cat Pits 1999:

• 97-1	no projected channel heavy black sands	3 5grain/yd	under water	schist
• 97-2	no projected channel	0 3grain/yd	under water	schist
• 97-3	no projected channel	3 5grain/yd	under water	schist
• 97-6	no projected channel	1 8grain/yd	under water	schist
• 97-7	no projected channel	1 0grain/yd	under water	schist
	60ppm Cu, 16ppm Pb, 68ppm Zn, 4ppm Mo, 73ppm Cr, 39ppm Ni			
• 97-9	possible channel		frozen	
• 97-12	no projected channel		frozen	
• 98-1	no projected channel		frozen	schist

403ppm Cr, 11ppm As

• 98-2	no projected channel	1 2grain/yd	under water	schist
• 98-3	no projected channel		frozen	schist
• 98-4	pit position with 98-5 reversed in new data/plotted position no projected channel	1 1grain/yd	under water	schist
• 98-5	pit position with 98-4 reversed in new data/plotted position no projected channel	0 6grain/yd	under water	schist
• 98-6	side of proj channel rusty schist zone D	lost sample 7 26%Fe	under water	schist
• 98-7	projected channel rusty schist zone D	2 8grain/yd scheelite	under water gumbo	schist
• 98-8	no projected channel rusty schist zone D	0 1 grain/yd quartz veinlets	under water gumbo	schist
• 98-9	no projected channel		frozen	
• 98-10	possible channel	0 1 grain/yd	under water	
• 98-11	no projected channel	0 1grain/yd	under water	
• 98-12	no projected channel	0 6grain/yd	mica schist	
• 98-13	possible channel rusty schist zone D	3 flakes brilliant clear mineral	no water	schist
• 98-14	no projected channel rusty schist zone D		frozen	
• 98-15	off of grid scheelite	0 3grain/yd much garnet	water?	
• 100-1	edge of channel		frozen	
• 100-2	no projected channel	11 5grain/yd	under water	
• 100-3	no projected channel	3 1grain/yd	no water	

- 100-4 edge of channel 1 9grain/yd under water
- 100-5 edge of channel 1 2grain/yd under water
  sample is low because spilled before weighing
- 100-6 edge of channel $10-$15 per yd? under water

Sampling 2001:

In general:

- Silt, soil, rock and pan (from alluvium or long tom concentrates) samples were taken There were 139 total samples with 89 assayed, 18 panned, and 32 held
- All samples were flagged and either tied to grid coordinates or to GPS
- Several large (1 bucket) sediment samples were taken to be later evaluated for fine gold potential
- Where applicable, -200 mesh was run on silt samples
- A few samples were run with a special process to enhance platinum, palladium sensitivity against sulfide mineralization
- In Dawson, pan samples were later checked with binocular microscope and black light

Special attention (to evaluate placer potential and locate placer Au source):

Ultramafic

- We knew from float, previous geochem and outcrop that we had considerable ultramafic in the area One previous geochem had assayed for platinum
- Real-time in the field, we generated ENVIMAP computer total magnetic field contour maps These showed volcanic pipe-like anomalies in the 50 Mile Valley just East of Al Creek
- We found considerable magnetic ultramafic float in the Al Creek and Ralph Creek areas
- We ran platinum assays for pertinent samples Many were positive, but just at the detection limits The highest (FM080406SS Ralph Crk West) was 19ppb Pd
- We ran several anomalous geochems with ultramafic signatures
- Massive actinolite from Al Creek (CTRIB02) assayed **265ppm Cr**, 0 45% Fe, **463ppm As, 41ppm Co, 437ppm Ni.**
- 1ppb Pd shows in stream sediment sample assay (FM080301S) at pit Al 1 Also shown was 8ppm W, 66ppm Cu, 51ppm Pb, 160ppm Zn, 11ppm Mo, 31ppmCo, 1067 Ba, 82 Cr, 6 8% Fe

- We ran in a previous season, one shallow sediment sample (CMB-1) at the mouth of Al Creek that ran **79ppb Au, 27ppm Cu,** 14ppm Pb, 36ppm Zn, 3ppm Mo, **172ppm Cr, 14.0% Fe, 271ppm As, 524ppm W, 149ppm V, 5699ppm Mn, 36ppm Co, 165ppm Ni,** 1 26% Ca

Granitic/Pegmatitic

- We found pegmatitic float and pegmatite related float restricted to the first km of Al Creek This included massive feldspar and massive actinolite up to 1 foot in diameter
- We found wide spread, low level tungsten in the area Some granitic boulders in Al Creek showed scheelite under a black light, and were anomalous in tungsten
- We found tantalum, gallium and indium in our geochem
- We had distinctive magnetic highs and high gradients showing in the field in the Al Creek area
- Under binocular microscope with black light, we found perfect, tiny, clear crystals of zircon in pan cons from the Al Creek area

Mafic Dike

- A fine grained, gray/black basaltic looking dike intrudes into the schist around Al Creek in at least three areas As exposed it is 3' to 6' thick, and is discordant to the host rock
    - One area is about 15' North of Al Pit 4 It was sampled but not yet assayed
    - Another was about 2 km up Al Creek It is pyritized and its assay (FM071703R) showed **7ppm W**, **3.93% Fe**, 1 11% Mg, 3ppm Co, 31Ni and very little K, Na, and P Its host rock is slightly altered
    - The second area intrudes the altered, pyritized schist at the mouth of Al Creek Its assay (FM080611R) is interesting It shows 30ppm Cu, 26ppmPb, 63ppm Zn, 7ppm Mo, **33ppm Co, 111ppm Ni, 1177 ppm Ba, 213ppm Cr, 150ppm V, 547ppm Sr, 178ppm Zr, 8.2% Al, 4.44% Ca, 5.0% Fe, 2.80% K, 2.16% Na.**
    - The location of these dikes relative to the potential ultramafic intrusive, their geochem, and their discordant nature indicates they may be related a nearby intrusive, and that they may be related to the broad alteration of the Schist at the mouth of Al Creek

Rusted Schist at Mouth of Al Creek

- The schist at the mouth of Al Creek is extensively rusted and locally heavily pyritized It generally strikes about 270T and dips about 80S We followed its outcrops along the Al Creek and 50 Mile Creek banks for over 150 meters, and it was open on both ends A sample (FM080801R) runs 7ppb Au, 40ppm Cu, 31ppm Pb, 83ppm Zn, 110ppm Cr, 2 38% Ca, 2 43% Fe

Fine Gold

- Previous sampling has shown that small visible gold shows up regularly from top to bottom in the gravel
- Several long tom pan samples with the visible gold removed assayed 2oz to 3oz/ton Au in the non-magnetic concentrate portion
- Microscopic gold is visible in most pan concentrates
- We took bucket sized samples at the filled in CAT pit sites that were frozen in 1999 This gives a soil sample from a mixed depth, that was thawed and below the muck Two sediment samples (FM070904S and FM070905S) near the surface at the Al Creek bench were run at -20, -100 and -200 , with the weights of initial sample, and assay samples recorded by lab -100 mesh results were about 15ppb and 10ppb respectively
- Further assay on top to bottom potential of the overall gravel is held in abeyance
- Future work should concentrate on evaluating fine gold potential in the pay zone

Diamond Potential

- We found abundant red garnets in Al Creek and throughout the 50 Mile Valley They have a definite red pyrope-like coloration
- Several pan samples have shown brilliant clear crystal fragments under a microscope
- Field interpretation of ENVIMAP generated total magnetic field contour maps indicated the possibility of pipe shaped volcanics in the vicinity of Al Creek
- Float, and geochem data indicated the presence of ultramafics
- C F Mineral Research, Ltd , Kelowna, B C processed 10 samples to sink/float separate by specific gravity, and checked for diamond indicators with microscope and microprobe
- The red garnet was not pyrope, but is being micro-probed to see if it is of deep seated origin (Mn garnet)
- There were no other specific or regional diamond indicators in the samples we submitted

75' Quartz Outcrop

- At the 50 Mile Valley East grid, L5000E, 80N, we found a high gossan 75 foot mineralized quartz vein
- The top of the vein on the right limit is 30 feet up from the 50 Mile Creek bottom, and is topped by 6 feet of gravel of the 50 Mile right limit bench There is no bottom exposed at the base of the vein
- Topography North across the 50 Mile and South over the right limit bench, implies that the vein continues on North and South for a long distance
- The vein quartz is highly altered, fractured and moderately pyritized across the face Fracture voids are often filled with well formed quartz crystals up to 2 cm These appear to be from a later injection and look barren

- Samples taken are anomalous in several minerals

    - From the contact alteration zone in schist - 15 foot either side of vein (Fm071805R)
        - 10ppb Au, 1 6ppmAg, 159ppm Cu, 34ppm Pb, 628ppm Zn, 5ppm Mo, 4 5ppm Cd, 143ppm Cr
    - Hand selected grab sample from center (FM071806R)
        - 18ppb Au, 2 2ppmAg, 66ppm Cu, 84ppm Pb, 666ppm Zn, 31ppm As, 6ppm Mo, 4 1ppm Cd, 252ppm Cr
    - Representative grab sample across middle 50' (FM071807R)
        - 11ppb Au, 1 7ppmAg, 25ppm Cu, 65ppm Pb, 232ppm Zn, 7ppm As, 3ppm Mo, 1 3ppm Cd, 236ppm Cr
    - Representative sample center 15' (FM070808R)
        - 17ppb Au, 1 2ppmAg, 10ppm Cu, 124ppm Pb, 141ppm Zn, 26ppm As, 2ppm Mo, 0ppm Cd, 155ppm Cr
    - Representative grab sample across 75' (FM070809R)
        - 11ppb Au, 0 9ppmAg, 81ppm Cu, 27ppm Pb, 41ppm Zn, 4ppm Mo, 0ppm Cd, 108ppm Cr

Potential Ultramafic Intrusion

- The total magnetic field survey, 50 Mile Valley East map highlight A, shows the location of a probable ultramafic intrusion
- It is about 500 meters long, is centered at about L5700E and trends NW It shows about a 800 gamma rise with a gradient range of about 525 gamma This strong negative gradient could indicate a possible reversal of polarity and a plunging structure attitude
- Sample FM081106R, at L5750E is of interest because it is outcropping just where the negative gradient of the anomaly becomes so intense it causes the magnetometer to go off line The operator feels that the rock type could be related to this major gradient It has a strong sulfur smell Its assay shows
    - no Au or Pt, 25ppmCu, 10ppmPb, 57ppm Zn, 6ppm Mo, 28ppm Co, 29ppm nickel, 145ppm barite, 67ppm Cr, 44ppm V, 582ppm Mn, 7ppm La, 132ppm Sr, 6ppm Zr, 5ppm Sc, 0 07% Ti, **3.21% Al, 3.22% Ca, 3.39%Fe, 2.61%Mg, .06% K, 0.38% Na, 0.06% P**

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APPENDIX A QUALIFICATIONS

Aurora Geosciences, is a geology and geophysics consulting firm located in Whitehorse, Yukon and Yellowknife, Northwest Territories They have decades of experience working with placer and hardrock magnetic surveys in the Yukon.

Shawn Ryan is a trained geophysics technician with over ten years of experience in conducting magnetic surveys in the Yukon, and in Ontario

Albert Rudis

- *Albert Rudis* has 16 years of experience in exploration and evaluation of mining properties 9 years of this was in Nevada, where for over five years he served as the President of Nevada International, Inc , a small Nevada mining exploration and development corporation
- For the past seven years Mr Rudis has lived in Dawson City, Yukon During this period, he has been involved on a full time basis in placer mining and exploration, and hard rock prospecting Beginning in 1995, Mr Rudis conducted in-depth research into historical and modern placer mining techniques and properties He has defined several areas where new techniques can be applied to profitably mine lower grade historical and new placer areas
- Mr Rudis has assisted and advised local miners on a voluntary basis as requested, and has consulted with select local placer miners with emphasis on ground evaluation, processing plant effectiveness, and drilling procedure Consultation projects have involved
    - Application of the latest sluice box technology
    - Location of unrecognized profitable mining zones and procedure in the Dawson historical placer area
    - Economic viability of new placer and hard rock mining ventures
    - Interpretation and application of magnetic surveys to placer ground
- He is a Partner in the prospecting, exploration, and development of several groups of quartz and placer mining claims in the Yukon Territory, Canada
- He has extensive research and analytical experience with the U S Government For five years he served as a scientist/operations research analyst working in research and development at a U S Navy Research and Development Laboratory

Mr Rudis has a BS degree in Geology from Trinity College, Connecticut, and an MBA from the University of Oregon He attended and took at the Geoscience Forum in Whitehorse in 1998, 1999 and 2000 In each forum he took the short course that was available Mr Rudis also attended the Dawson City Gold Shows in 1996,1997, 1998, 1999, and 2000 He attended the available technical forums and presentations at each Gold Show

CAT PIT RESULTS

Pit Number	Depth Br or Frost	Muck	Long-Tom Results
97-01	8'	6 inch	**3.5 grain/yd,** 1 yd sample Some gravel in place Lower gravel and bedrock pushed up from under water with Cat Most of the gold is flattened, but some is chunky, and some small and very angular A lot of very fine gold may indicate need for better fine gold recovery Abundant garnet Bedrock (BR) is decomposed schist
97-02	9'	6 inch	**0.3 grain/yd,** 1 yd sample pushed up from under water with Cat BR porphritic schist Pan cons show sparse scheelite and powelite
97-03	7 5'	1'	**1.0 grain/yd**, 1 yd sample in place 2 5' above and 6inch into bedrock Water covered decomposed schist bedrock Concentrates very heavy in black sands
97-04	7'	1'	Frozen - not to bedrock, no sample
97-05	7'	1'	**1.3 grain/yd**, 1 yd sample Cat pushed up Water covered bedrock and lower gravel BR is massive blocky high quartz schist with sparse localized pyrite Some of the gold angular, one piece had square mineral imbedded therein
97-06	8'	1'	**1.8 grain/yd**, 1 yd sample Cat pushed up Water covered bedrock and lower gravel BR partially decomposed mica schist
97-07	8'	8 inch	**1.0 grain/yd**, 1 yd sample Cat pushed up Water covered bedrock and lower gravel BR is mica schist with fractures across the schistosity filled by calcite with local pyrite and chalcopyrite
97-08	6'	none	7 fine flakes with little weight 1 yd sample in place on dry bedrock Heavy in nonmagnetic black sands BR is moderately blocky schist
97-09	9'	1'	Frozen - not to bedrock, no sample
97-10	7'	1'	Frozen - not to bedrock, no sample Pit filled with water
97-11	7'	1'	Frozen - not to bedrock, no sample Pit filled with water
97-12	1'	?'	Frozen - not to bedrock, no sample 100x100 foot try at Pit filled with water making deeper cut into frozen ground impossible with a D7 This covers location of very high magnetic anomaly
98-01	14 5'	2 inch	Frozen - not to bedrock, no sample
98-02	6'	1'	**1.2 grain/yd**, 1 yd sample in place 2 5' above and 6inch into bedrock Difficult to separate gold from gray heavies Fine gold left could indicate significant values in hard to catch fine gold Water covered blocky high quartz schist bedrock BR is blocky high quartz schist
98-03	1'	?'	Frozen - not to bedrock, no sample Pit filled with water making deeper cut into frozen

			ground impossible with a D7 Pan cons show possible cornetite
98-04	14'	none	**1.1 grain/yd**, 1 yd sample in place 3' above and 6inch into bedrock Water covered blocky high quartz schist bedrock
98-05	6'	3 inch	**0.6 grain/yd**, 1 yd sample in place Sample dropped and some gold lost 3' above and 6 inch into bedrock Water covered decomposed schist bedrock Abundant garnet and microscopic gold
98-06	12'	6 inch	**? grain/yd**, 1 yd sample Cat pushed up Water covered bedrock and lower gravel BR partially decomposed mica schist Sample results lost
98-07	7'	1 5'	**2.8 grain/yd**, 1 yd sample in place 2 5' above and 6 inch into bedrock Considerable water coverage at and above bedrock of flat-laying rusty decomposed high mica schist and green gumbo Several gray grains to 2mm test as scheelite
98-07R			**1.1 grain/yd**, 1 yd sample in place 98-07R and 98-08R run as test of long-tom performance, with the fine tailings screened to ¾ inch and reprocessed at ½ water speed Test showed little difference in long-tom recovery 2 5' above and 6 inch into bedrock Considerable water coverage at and above bedrock of rusty decomposed schist and green gumbo
98-08	6'	1'	**? grain/yd,** 1 yd sample in place 2 5' above and 6 inch into bedrock Considerable water coverage at and above decomposed schist with lenses of easily fractured quartz Lenses of about 12 inch of green gumbo Gold fine and sparse and could not be separated from gray heavies Pan taken at bedrock showed 3 medium sized flakes Cons fluorescent for scheelite larger pieces identified as scheelite
98-08R			**0.1 grain/yd,** ½ yd sample in place 2 5' above and 6 inch into bedrock Considerable water coverage at and above decomposed schist with lenses of easily fractured quartz Lenses of about 12 inch of green gumbo Pan sample at bedrock showed one medium sized flake Cons fluorescent for scheelite and powelite
98-09	17 5'	2 inch	Frozen - not to bedrock, no sample
98-10	12'	1'	**0.1 grain/yd**, 1 yd sample Cat pushed up Water covered bedrock and lower gravel
98-11	5'	6 inch	**0.1 grain/yd,** 1 yd sample in place BR is blocky micaceous schist
98-12	6'	none	**0.6 grain/yd,** 1 yd sample in place BR is micaceous schist
98-13	8'	1'	3 tiny flakes 1 yd sample in place No water in pit One very brilliant clear mineral in cons BR is micaceous schist BR fluorescent for scheelite and sparse powelite
98-14	14'	6 inch	Frozen - not to bedrock, no sample
98-15	6'	2 inch	**0.3 grain/yd,** ½ yd sample in place Pan cons fluorescent for scheelite and powelite Abundant garnet
98-16	6'	1'	Frozen - not to bedrock, no sample
98-17	12'	1'	Frozen - not to bedrock, no sample

99-01	7 5'	6 inch	Frozen - not to bedrock, no sample at bedrock ¼ yd sample at frozen gravel showed four very fine flakes
99-02	6'	6 inch	**5.5 grain/yd,** 1 yard sample in place Took 3' above bedrock, 6 inch into bedrock Bedrock in water Pan 3' up had 3 flakes, one medium sized Pan at bedrock had 3 fine flakes
99-03	9'	6 inch	Frozen - not to bedrock, no BR sample Increased depth probable due to hill slope with bedrock same level as others ½ yard run in gravel at estimated 3' to 5' above bedrock showed 20 medium flakes, 40 fine flakes and numerous fs gold Two gold types brassy yellow and dark coppery Coppery included blue/black mineral and showed rough structure limited transport 50% non-magnetic, 50% magnetic in concentrate Non-magnetic mostly blue black mineral with included golden mineralization, some of which is gold under 30X microscope Considerable fluoresce in scheelite and powelite
99-04	5'	none	**9.0 grain/yd** 1 yd sample in place Water at bedrock Took 6 inch in bedrock, 2 feet above mica schist bedrock Pan 4' above bedrock showed 4 very fine gold flakes
99-05a	5'	6 inch	**7.8 grain/yd** ½ yd sample Cat pushed 2 inch into bedrock 2 flakes panned at 1 5' Lower part of sample in water Had to dewater several times BR is dark schist with inter-bedded quartz veining up to ¾ inch thick
99-05b			**7.8 grain/yd** ½ yd sample in place 2 5' above, 6 inch below bedrock 18 inch of decomposed gumbo at bedrock Water at bedrock Grant Lowey reports 024oz/yd pan at bedrock Grant Lowey reports heavy minerals as 40% magnetite, 10% hematite, 1% pyrite, 1% gold, 20% garnet, 10% hornblende, 8% enstatite, 4% hypersthene, 2% cassiterite, 2% actinolite, 1% apatie, 1% sphene Lower sample in water
100-01	7'	2'	Frozen - not to bedrock, no sample at bedrock 2 pan sample taken off of frozen gravel showed 2 small flakes
100-02	12'	2 inch	**11.5 grain/yd**, 1 yard sample in place 2 5' above, 6 inch below bedrock Lower sample in water BR decomposed mica schist with quartz veining Angular gold pieces show little travel Abundant garnet and microscopic gold
100-03	6'	1 5'	**3.1 grain/yd,** 1 yd sample in place 2 5' above, 6 inch below bedrock Dry at bedrock Poor penetration of bedrock Quartz veining in blocky mica schist bedrock
100-04	7'	2'	**1.9 grain/yd,** 1 yd sample - cat pushed sample up from under water BR blocky schist
100-05	6'	2 inch	**1.2 grain/yd,** 1 yd sample in place 2 5' taken above BR, no bedrock penetration Lower gravel and BR under water BR is blocky porphritic gneiss Some of sample lost due to overheating/breakage of drying plate
100-06	5'	1 5'	Frozen - not to bedrock, no sample

Pit Number	BR Description	Assay Highlights
97-01A	Micaceous Schist - light gray	<5ppb Au, 4ppm Cu, 4ppm Pb, 19ppm Zn, 1ppm Mo, 173ppm Cr, 2 06% Fe
97-02A	Micaceous Schist - blocky, medium gray, high quartz, augen-like quartz pods along schistosity	7ppb Au, 5ppm Cu, 3ppm Pb, 14ppm Zn, 1ppm Mo, 140ppm Cr, 1 88% Fe
97-03	Micaceous Schist - decomposed with green gumbo	
97-04A	Gneiss? - well banded, blocky, light gray - possibly float	7ppb Au, **38ppm Cu**, 3ppm Pb, 13ppm Zn, 1ppm Mo, 116ppm Cr, 0 85% Fe
97-05A	Micaceous Schist - massive blocky, sparse local pyrite, quartz lensing on schistosity	7ppb Au, 0 2ppm Ag, 2ppm Cu, 29ppm Pb, 19ppm Zn, 1ppm Mo, 80ppm Cr, 0 52% Fe
97-06	Micaceous Schist - partially decomposed	
97-07A	Micaceous Schist - moderately blocky, calcite veining across schistosity, local pyrite and chalcopyrite	5ppb Au, **60ppm Cu**, **16ppm Pb**, 68ppm Zn, **4ppm Mo**, 73ppm Cr, 2 09% Fe, **39ppm Ni**
97-08A	Micaceous Schist - moderately blocky	**8ppb Au**, 13ppm Cu, 13ppm Pb, 42ppm Zn, **2ppm Mo**, 84ppm Cr, 2 42% Fe
98-01A	Micaceous Schist	**11ppb Au**, 14ppm Cu, 9ppm Pb, 52ppm Zn, **2ppm Mo**, 403ppm Cr, 1 39% Fe, **11ppm As**
98-02	Micaceous Schist - blocky, high quartz	
98-04	Micaceous Schist - blocky, high quartz, slightly weathered	
98 -05	Micaceous Schist - blocky, quartz lensing on schistosity	
98-06A	Micaceous Schist	7ppb Au, 15ppm Cu, **24ppm Pb**, 63ppm Zn, **2ppm Mo**, 58ppm Cr, **7.26% Fe, 92ppm V**
98-07	Micaceous Schist - loose decomposed, flat laying	
98-08A	Micaceous Schist - decomposed, quartz layering along schistosity	6ppb Au, 13ppm Cu, 9ppm Pb, 33ppm Zn, 1ppm Mo, 94ppm Cr, 1 54% Fe
98-10A	Micaceous Schist	**8ppb** Au, **0.4 Ag, 64ppm Cu**, 7ppm Pb, **166ppm Zn**, **6ppm Mo**, 72ppm Cr, 2 41% Fe, **13ppm Co**, **54ppm Ni, 73ppm V**
98-11A	Micaceous Schist - blocky, quartz lensing	7ppb Au, 3ppm Cu, 7ppm Pb, 15ppm Zn, 1ppm Mo, 56ppm Cr, 1 34% Fe
98-12A	Micaceous Schist	7ppb Au, 5ppm Cu, 2ppm Pb, 26ppm Zn, 1ppm Mo,

		52ppm Cr, 1 20% Fe
98-13	Micaceous Schist - decomposed	Fluoresces for scheelite and powelite
98-15	Micaceous Schist - decomposed	
99-01	Frozen above bedrock, no BR sample	½ yard run in gravel at unknown depth above bedrock at 7 5' down showed 3 fine flakes of gold
99-03	Frozen above bedrock, no BR sample	½ yard run in gravel at estimated 3' to 5' above bedrock showed 20 medium flakes, 40 fine flakes and numerous fs gold Two gold types brassy yellow and dark coppery Coppery included blue/black mineral and showed rough structure limited transport 50% non-magnetic, 50% magnetic in concentrate Non-magnetic mostly blue black mineral with included golden mineralization, some of which is gold under 30X microscope Considerable fluoresces in scheelite and powelite
99-04	Micaceous Schist	
99-05A	Micaceous Schist - dark gray (sampled as CRPIT-5BR)	6ppb Au, 13ppm Cu, 2ppm Pb, **95ppm Zn, 2ppm Mo,** 52ppm Cr, **3.88% Fe, 15ppm Co, 32ppm Ni**
100-02A	Micaceous Schist - quartz lensing along schistosity, sample mostly quartz pod	7ppb Au, 4ppm Cu, 8ppm Pb, 15ppm Zn, 1ppm Mo, 100ppm Cr, 82% Fe
100-03A	Micaceous Schist - blocky, high quartz, sample mostly quartz pod	7ppb Au, 3ppm Cu, <ppm Pb, 20ppm Zn, <ppm Mo, 70ppm Cr, 1 17% Fe
100-04A	Micaceous Schist - blocky, porphyritic, high quartz	7ppb Au, 17ppm Cu, **19ppm Pb**, 26ppm Zn, 1ppm Mo, 71ppm Cr, 1 57% Fe, **13ppm As**
100-05A	Gneiss? - blocky, possibly float	7ppb Au, 5ppm Cu, 12ppm Pb, 49ppm Zn, 1ppm Mo, 27ppm Cr, 1 56% Fe, **7ppm As**

ASSAY RESULTS AND MAP KEY

Rock Sample Number	Description	Assay Highlights
MOSF99R01 Map No 1	White felsic volcanic - Cheryl Crk drainage	**8ppb Au**, 3ppm Cu, 9ppm Pb, 8ppm Zn, <ppm Mo, 71ppm Cr, 0 12% Fe
MOSR99R01 Map No 2	Dark green volcanic, probably andesite, magnetic - Cheryl Crk drainage	**22ppb Au,** 18ppm Cu, **22ppm Pb**, 57ppm Zn, **4ppm Mo**, 47ppm Cr, **4.12% Fe, 13ppm Co, 117ppm V**
MOSR99R02 Map No 3	Conglomerate, local fluorescent scheelite - Cheryl Crk drainage, outcrop above saddle	**8ppb Au,** 5ppm Cu, 4ppm Pb, 5ppm Zn, 1ppm Mo, 99ppm Cr, 0 51% Fe, **6ppm As**
MOSR99R03 Map No 4	Quartz porphyry, gray, quartz phenocrysts 1 5mm x 1mm, hornblende 10mm x 3mm - Cheryl Crk drainage, subcrop taken 150m SW from post on side hill	**9ppb Au, 30ppm Cu**, 12ppm Pb, **24ppm Zn**, **4ppm Mo**, 75ppm Cr, 1 73% Fe, **113ppm V, 14ppm Zr**
MOSR99R04 Map No 5	Fine grained gray magnetic dike, possible monzonite - Cheryl Crk drainage, subcrop 100m post on side hill	**11ppb Au,** 11ppm Cu, **35ppm Pb**, 82ppm Zn, 1ppm Mo, 54ppm Cr, **3.11% Fe, 118 V**
MOSR99R05 Map No 6	Gray volcanic, quartz porphyry? Large (10mm) phenocrysts, sparse inclusions of pyrite - Cheryl Crk drainage, subcrop on side hill below saddle (helo landing)	**8ppb Au,** 4ppm Cu, **18ppm Pb**, 59ppm Zn, 1ppm Mo, 20ppm Cr, 2 07% Fe, **12ppm As, 60ppm V**
MOSR99R06 Map No 7	Felsic bleached volcanic, rhyolite - Cheryl Crk drainage, subcrop down by small knob next to creek	5ppb Au, 6ppm Cu, 14ppm Pb, 12ppm Zn, **3ppm Mo**, 55ppm Cr, 0 19% Fe, 5ppm As
MOSR99R07 Map No 8	Siliceous gray mafic with gossan, pyrite zone - Cheryl Crk drainage, just below top of small hill	**53ppb Au, 1.1ppm Ag, 3690ppm Cu, 31ppm Pb, 304ppm Zn, 36ppm Mo,** 38ppm Cr, **6.89% Fe, 24ppm Co, 795ppm Mn**
MOSR99R08 Map No 9	Siliceous gray fine grained mafic with major quartz veining - Cheryl Crk drainage, subcrop	**10ppb Au,** 17ppm Cu, 10ppm Pb, 53ppm Zn, 1ppm Mo, 41ppm Cr, **2.97% Fe, 6ppm As**
MOSR99R09 Map No 10	Granodiorite, locally magnetic, sparse pyrrhotite, earthy coating fluorescent blue could be hydrozincite - Cheryl Crk drainage, 100m x 100m outcrop just below ss02/ss03 along creek/ridge	6ppb Au, 6ppm Cu, 5ppm Pb, 18ppm Zn, 1ppm Mo, 66ppm Cr, 2 12% Fe, **52ppm V**
KGM 1 Map No 11	Light felsic volcanic (possibly monzonite), considerable pyrite and limonite after pyrite - Cheryl Crk drainage, near helicopter landing zone on saddle	**12ppb Au, 0.7ppm Ag, 165ppm Cu, 67ppm Pb,** 55ppm Zn, **4ppm Mo**, 14ppm Cr, **4.31%** Fe, **11ppm As, 142ppm V, 110 ppm Bi**
KGM 2 Map No 12	Dense gray andesitic volcanic with large phenocrysts of magnetite and sparse pyrite It is noted that similar andesites are indicative of associated porphyry copper - Cheryl Crk drainage, near helicopter landing zone on	6ppb Au, 1ppm Cu, 12ppm Pb, **94ppm Zn**, **13ppm Mo,** 30ppm Cr, **7.76% Fe, 183ppm V**

	saddle	
KGM 3 Map No 13	Leached probable quartzite with equal grain size and high porosity, reddish staining and tiny pyrite - Cheryl Crk drainage, near helicopter landing zone on saddle	**9ppb Au,** 6ppm Cu, 8ppm Pb, 8ppm Zn, **3ppm Mo,** 158ppm Cr, 0 55% Fe
CMF 01 Map No 14	Gneiss, dark gray, mostly actinolite, considerable whitish pyrite along bands, may grade into schist downstream - 50' thickness exposed across Cheryl Crk about 70m above canyon	**8ppb Au, 0.5ppm Ag, 192ppm Cu,** 3ppm Pb, **139ppm Zn, 3ppm Mo,** 59ppm Cr, **4.84% Fe, 111ppm V, 39ppm Co, 30ppm Ni, 2.08% Al, 1.10% Ca, 2.18% Mg**
CMF02 Map No 15	Gneiss, gray, finely banded, actinolite along banding, whitish pyrite along banding, quartzite and calcite veining to ½ inch crosses banding along fracture seams, fractures strike 065° and dip 78°, foliated banding - 5' wide x 6' exposed showing crosses Cr 60m downstream of CMF01	<5ppb Au, 0 1ppm Ag, **47ppm Cu,** 3ppm Pb. 10ppm Zn, <ppm Mo, 121ppm Cr, 0 59% Fe, **0.93% Ca, 1.96% Mg**
CMF03 Map No 16	Gneiss similar to CMF02, actinolite along banding, pyrite throughout matrix and along fracture seams, narrow quartz and calcite veining cuts across banding - small outcrop 50m upstream of CMF01	<5ppb Au, **0.4ppm Ag, 151ppm Cu,** 5ppm Pb, **93ppm Zn, 2ppm Mo,** 63ppm Cr, **4.47% Fe, 104ppm V , 52ppm Co**
CRCR 78 Map No 17	Blocky medium light gneiss, well developed muscovite schistosity, limonite after pyrite along schistosity - Cheryl Crk drainage, along creek below pit 99-5	**8ppb Au,** 4ppm Cu, 9ppm Pb, 47ppm Zn, 1ppm Mo, 58ppm Cr, 1 55% Fe
CRCR 78-1 Map No 18	Banded gneiss float (2'x1'x8 inch), bands alternately green (1 inch) and red (3 inch), green banding almost completely pyrite, red banding pyritized - Cheryl Crk drainage, along creek below pit 99-5, 30m down from CRCR78	**8ppb Au,** 15ppm Cu, 8ppm Pb, 5ppm Zn, **8ppm Mo,** 59ppm Cr, **11.0% Fe, 183ppm V, 17ppm Co, 140ppm Ni**
CRCR 78-2 Map No 19	Blocky light gneiss with well developed schistosity, sparse pyrite, slight gossan - Cheryl Crk drainage, along creek below pit 99-5, 10m down from CRCR78	7ppb Au, 0 1ppm Ag, 21ppm Cu, 3ppm Pb, 23ppm Zn, 1ppm Mo, 60ppm Cr, 0 93% Fe
CRPIT-5BR Map No 20	Micaceous Schist - dark gray (sampled bedrock from pit 99-5)	06ppb Au, 13ppm Cu, 2ppm Pb, **95ppm Zn, 2ppm Mo,** 52ppm Cr, **3.88% Fe, 15ppm Co, 32ppm Ni**
CTRIB 01 Map No 21	Massive actinolite (12 inch x 18 inch) float - Al Creek drainage above campsite	5ppb Au, <ppm Cu,<ppm Pb, 6ppm Zn, 1ppm Mo, **265ppm Cr,** 0 45% Fe, **463ppm As, 41ppm Co, 437ppm Ni**
CTRIB 02	Blocky medium dark gneiss with some muscovite	<5ppb Au, 2ppm Cu, 9ppm Pb, 38ppm Zn, <ppm Mo,

Map No 22	schistosity - Al Creek drainage above campsite	60ppm Cr, 0 72% Fe, **6ppm As**
CTRIB 03 Map No 23	Gneiss, light colored, high quartz, finely banded - Al Creek drainage above campsite	**8ppb Au,** 5ppm Cu, **15ppm Pb,** 30ppm Zn, <ppm Mo, 61ppm Cr, 0 48% Fe, **48ppm As, 39ppm Ni**
CTRIB 04 Map No 24	Gneiss, blocky, fine grained, light colored, quartz veining along fracture planes - Al Creek drainage above campsite	7ppb Au, 7ppm Cu, **16ppm Pb,** 34ppm Zn, 1ppm Mo, 63ppm Cr, 0 75% Fe
CTRIB 05 Map No 25	Pegmatite, mostly orthoclase, plagioclase, and smoky quartz - float boulder 1'x1', 350m upstream from camp at Al Cr	6ppb Au, 7ppm Cu, 2ppm Pb, 2ppm Zn, **8ppm Mo,** 136ppm Cr, 0 29% Fe
SH 01 Map No 26	Micaceous schist, pyrite along schistosity - Al Creek drainage, left limit outcrop 100m above campsite	6ppb Au, **70ppm Cu,** 3ppm Pb, 75ppm Zn, 1ppm Mo, 50ppm Cr, **4.32% Fe, 14ppm As, 201ppm V, 15ppm Co**
SH 02 Map No 27	Micaceous Schist, quartz pods up to 9 inch along schistosity - Al Creek drainage, left limit 3' wide outcrop 200m above campsite	<5ppb Au, 2ppm Cu, 9ppm Pb, 57ppm Zn, **3ppm Mo,** 149ppm Cr, 2 21% Fe, **6.66% Ca, 1.87%Mg, 9ppm As, 70ppm V, 1038ppm Mn, 53ppm Sr, 67ppm Ni**
SH 03 Map No 28	Quartz vein - 9 inch quartz pod material from SH02	7ppb Au, 2ppm Cu, <ppm Pb, 10ppm Zn, 1ppm Mo, 139ppm Cr, 0 46% Fe
SH04 Map No 29	Gneiss, dense, high gossan, high smoky quartz veining across banding and fracture planes - Micaceous schist, pyrite along schistosity - Al Creek drainage, right limit outcrop 210m above campsite	**9ppb Au,** 0 1ppm Ag, **36ppm Cu,** 9ppm Pb, 38ppm Zn, **9ppm Mo,** 108ppm Cr, 2 32% Fe, **134ppm V**
TRG 03 Map No 30	Quartz vein material, heavy and brittle - float boulder 1'x1', 350m upstream from camp at Al Cr	5ppb Au, 2ppm Cu, <ppm Pb, 3ppm Zn, 1ppm Mo, 144ppm Cr, 0 33% Fe
CMPQ 01 Map No 31	Micaceous Schist, quartz veins and pods along schistosity - left limit weathered outcrop adjacent to camp site at Al Cr	<5ppb Au, 3ppm Cu, 2ppm Pb, 5ppm Zn, 1 ppm Mo, 126ppm Cr, 0 20% Fe
CMPS 01 Map No 32	Micaceous Schist - left limit weathered outcrop adjacent to camp site at Al Cr	**9ppb Au, 2.0ppm Ag,** 10ppm Cu, **293ppm Pb,** 45ppm Zn, **3ppm Mo,** 80ppm Cr, 1 02% Fe, **6ppm As, 4.8% Ca, 176ppm Sr**
CMPS 02 Map No 33	Micaceous Schist, calcite veining to ½ inch along schistosity, pyrite in schist and calcite - sample from campsite - left limit weathered outcrop adjacent to camp site at Al Cr	6ppb Au, 13ppm Cu, 13ppm Pb, 28ppm Zn, **3ppm Mo,** 38ppm Cr, **1.80% Fe, 1593ppm Sr, 21% Ca**
TTA Map No 34	Micaceous Schist, blocky, high quartz - 40' high outcrop across from feeder stream 2 5km upstream on Al Cr	5ppb Au, 2ppm Cu, 5ppm Pb, 13ppm Zn, 1ppm Mo, 49ppm Cr, 1 34% Fe
TTB Map No 35	Micaceous Schist, blocky - outcrop where valley begins to widen at 2 2km upstream on Al Cr	6ppb Au, **23ppm Cu,** 6ppm Pb, 25ppm Zn, **2ppm Mo,** 53ppm Cr, 1 75% Fe
TTC	Micaceous Schist, blocky, quartz veining on schistosity -	5ppb Au, 12ppm Cu, <ppm Pb, 14ppm Zn, 1ppm Mo,

Map No 36	right limit outcrop, 10-12' wide at 1 5km upstream on Al Cr	191ppm Cr, 1 25% Fe
99CSQ1 Map No 37	Quartz vein, bright reddish stained on surface of fractures - angular float from cat track near camp site	<5ppb Au, 3ppm Cu, <ppm Pb, 3ppm Zn, <ppm Mo, 97ppm Cr, 0 33% Fe
FT1 Map No 38	Micaceous Schist, abundant pyrite, schist similar to left limit Al Cr outcrop at camp site - float from Al Cr camp	**9ppb Au, 0.5ppm Ag, 46ppm Cu**, 6ppm Pb, **87ppm Zn, 2ppm Mo,** 93ppm Cr, **3.32% Fe,** 1 31ppm Mg, **75ppm V**
RFQ 01 Map No 39	Gneiss, sparse banding, high gossan, fractures across banding some filled with limonite, quartz, limonite after pyrite - outcrop on 50 Mile Cr left limit just below cat ramp up Ralph Cr	6ppb Au, 3ppm Cu, 16ppm Pb, 11ppm Zn, 1ppm Mo, 70ppm Cr, 0 93% Fe
RFH 01 Map No 40	Gneiss, high gossan, high quartz - 4' x 14' outcrop on 50 Mile Cr left limit just below cat ramp up Ralph Cr	**8ppb Au,** 0 1ppm Ag, 4ppm Cu, 3ppm Pb, 24ppm Zn, **4ppm Mo,** 75ppm Cr, 1 09% Fe
RFH 02 Map No 41	Gneiss, high gossan, high quartz with included quartz lens, mostly all quartz run in samle - 4' x 10' outcrop on 50 Mile Cr left limit below cat ramp up Ralph Cr	**10ppb Au,** 3ppm Cu, 3ppm Pb, 11ppm Zn, **2ppm Mo,** 116ppm Cr, 0 45% Fe
RFH 02G Map No 42	Gneiss without quartz veining from RFH02	<5ppb Au, 3ppm Cu, 2ppm Pb, 16ppm Zn, **3ppm Mo,** 64ppm Cr, 0 87% Fe
RFH 03 Map No 43	Gneiss, high quartz, high gossan - 4 inch wide outcrop 100' upstream of cat ramp up Ralph Cr	**9ppb Au,** 6ppm Cu, 3ppm Pb, 26ppm Zn, **2ppm Mo,** 82ppm Cr, 1 05% Fe
RFH 04 Map No 44	Quartz vein, high gossan, highly fractured - at cat ramp up to Ralph Cr	**14ppb Au, 1.0ppmAg, 22ppm Cu, 65ppm Pb,** 69ppm Zn, **2ppm Mo,** 60ppm Cr, 0 94% Fe
RFH 05 Map No 45	Quartz vein material, brittle - float below cat ramp up to Ralph Cr	**10ppb Au,** 2ppm Cu, 7ppm Pb, 3ppm Zn, <ppm Mo, 182ppm Cr, 0 22% Fe
RFH 06 Map No 46	Gneiss, high gossan, high quartz, possible sparse pyrrhotite - 4' x 100' wide outcrop 60m above ramp up Ralph Cr	6ppb Au, **0.9ppm Ag,** 8ppm Cu, **39ppm Pb,** 58ppm Zn, **3ppm Mo,** 63ppm Cr, 0 95% Fe
RFH 07 Map No 47	Gneiss, moderate gossan, high quartz - 6' wide zone about 30m downstream of RFH07	6ppb Au, 3ppm Cu, 7ppm Pb, 34ppm Zn, **4ppm Mo,** 99ppm Cr, 1 05% Fe
RFH 08 Map No 48	Gneiss, high gossan, high quartz, large and small, horizontal and vertical quartz veinlets cut the gneiss - outcrop along 50 Mile Cr, near Ralph Cr mouth 40m down from RFH11	**8ppb Au,** 11ppm Cu, 7ppm Pb, 14ppm Zn, 1ppm Mo, 106ppm Cr, 0 93% Fe
RFH 09 Map No 49	Gneiss, high gossan, high quartz and associated quartz vein, - quartz visually hard to distinguish from gneiss as has same gossan and fracture pattern Horizontal quartz	6ppb Au, 0 3ppm Ag, 9ppm Cu, **21ppm Pb**, 13ppm Zn, **3ppm Mo,** 79ppm Cr, 0 99% Fe

	vein 1' to 2' thick and vertical quartz vein 1' thick cuts gneiss - outcrop along 50 Mile Cr, near Ralph Cr mouth 50m down from RFH11	
RFH 10 Map No 50	Quartz vein - pure white quartz from 18 inch x 9 inch boulder below RHF09	7ppb Au, 2ppm Cu,<ppm Pb, 2ppm Zn, <ppm Mo, 128ppm Cr, 0 18% Fe
RFH 11 Map No 51	Quartz-vein like material from high quartz banded gneiss - outcrop along 50 Mile Cr, near Ralph Cr mouth upstream 200m below bend in 50 Mile CR	4ppb Au,3ppm Cu, <ppm Pb, 15ppm Zn, 1ppm Mo, 145ppm Cr, 0 82% Fe
RFH 12 Map No 52	Gneiss, high gossan, high quartz, sparse included quartz veinlets - taken 6' below RFH09	6ppb Au, 7ppm Cu, 4ppm Pb, 11ppm Zn, **2ppm Mo,** 87ppm Cr, 1 00% Fe
RFH 13 Map No 53	Gneiss, high gossan, high quartz, considerable included quartz veinlets - taken near RFH12	**37ppb Au,** 6ppm Cu,8ppm Pb, 8ppm Zn, **2ppm Mo,** 57ppm Cr, 0 91% Fe
RFH 14 Map No 54	Gneiss, greenish cast, high gossan, high quartz, quartz veinlets with quartz from veinlets quite brittle - taken 2' above RFH09	<5ppb Au, 1ppm Cu, 2ppm Pb, 16ppm Zn, **2ppm Mo,** 68ppm Cr, 0 63% Fe
RFH 15 Map No 55	Quartz vein, 2' thick x 75' exposed - crosses 50 Mile Cr from vicinity of RFH09, sample on South side 75' from RFH09	<5ppb Au, 2ppm Cu, 3ppm Pb, 1ppm Zn, 1ppm Mo, 143ppm Cr, 0 17% Fe
RFH 16 Map No 56	Gneiss, will developed and abundant banding, weathered - taken from same zone as RFH06	<5ppb Au, 1ppm Cu, 2ppm Pb, 21ppm Zn, **2ppm Mo,** 56ppm Cr, 0 73% Fe
RFH 17 Map No 57	12' wide quartz vein, quartz brittle and heavy - grab sample several hundred feet downstream of and on the opposite side of other quartz veins described under "RFH" Strike and dip shows possible correlation to upstream outcrops Underlies banded gneiss	5ppb Au, 1ppm Cu,4ppm Pb, 6ppm Zn,1ppm Mo, 123ppm Cr, 0 37% Fe
RFH 17A Map No 58	Quartz vein shown in RFH17 - grab sample from different location on vein	5ppb Au, 1ppm Cu, 6ppm Pb, 2ppm Zn, 1ppm Mo, 140ppm Cr, 0 22% Fe
CSQV1 Map No 59	Quartz vein material, 6'x300' exposed - 70' feet up on scarp on 50 Mile Cr left limit across from camp site tributary mouth	**38ppb Au,** 0 3ppm Ag, **35ppm Cu, 16ppm Pb,** 68ppm Zn, **13ppm Mo**, 72ppm Cr, 1 92% Fe
CSQV1 QTZ Map No 60	Pure white quartz from CSQV1 vein	5ppb Au, 0 2ppm Ag, 14ppm Cu, 14ppm Pb, 26ppm Zn, 1ppm Mo, 55ppm Cr, 0 57% Fe
CSQV2 Map No 61	Quartz vein material - from detritus at base of scarp on 50 Mile Cr left limit across from camp site tributary mouth	**27ppb Au,** 0 3pp Ag, **42ppm Cu, 17ppm Pb, 97ppm Zn, 4ppm Mo,** 128ppm Cr, **3.60% Fe, 113ppm V, 36ppm Ni,** 1 69% Mg

CSQV2A Map No 62	Dark gray fine grained volcanic - from detritus at base of scarp on 50 Mile Cr left limit across from camp site tributary mouth	7ppb Au, 0 2ppm Ag, **48ppm Cu, 17ppm Pb, 111ppm Zn,** 1ppm Mo, 113ppm Cr, **3.42% Fe, 87ppm V, 47ppm Ni**
CSQV2B Map No 63	Mica schist, blocky, weathered - from detritus at base of scarp on 50 Mile Cr left limit across from camp site tributary mouth	**19ppb Au,** 0 2ppm Ag, 35ppm Cu, 14ppm Pb, 54ppm Zn, **19ppm Mo**, 83ppm Cr, **2.76% Fe, 46ppm V**
MAI 98-1 Map No 64	Dark green volcanic or gneiss, banded with actinolite along banding Float representative of abundant heavy pebble type at about 14' in depth in pit 98-1	**8ppb Au,** 0 1ppm Ag, 14ppm Cu, 9ppm Pb, 47ppm Zn, 1ppm Mo, 58ppm Cr, 1 75% Fe
CPMM 01 Map No 65	Mafic boulder, shows hornblende and actinolite - float from pit 97-1 area	<5ppb Au, 3ppm Cu, 6ppm Pb, 40ppm Zn, 1ppm Mo, 56ppm Cr, 1 01% Fe, **7ppm As, 45ppm V, 1157ppm Mn, 0.90% Ca**
FMVR1 Map No 66	Quartz vein material from lensing along bands of banded gneiss - 50 Mile Cr right limit across from first left limit pup below Cheryl Cr, outcrop at upstream side of dry pup cut It is noted that outcrop on downstream side of this cut is gneiss with very little gossan It is also noted that ridge along first left limit pup below Cheryl Cr would be good for access road construction	7ppb Au, 2ppm Cu, 4ppm Pb, 8ppm Zn, 1ppm Mo, 109ppm Cr, 0 55% Fe
FMVR2 Map No 67	Banded gneiss, sparse limonite after pyrite along bands - 50 Mile Cr right limit, outcrop at location of FMVR1	**8ppb Au,** 3ppm Cu, 2ppm Pb, 9ppm Zn, 1ppm Mo, 72ppm Cr, 0 63% Fe

Silt Sample Number	Description	Assay Highlights
CMPB1 Map No 68	Top 12 inch x 12 inch of gravel of gravel bar at camp site on Al Cr taken as a two pan sample Microscopic gold shows with 30X microscope Depth to bedrock unknown It is noted that this would be a good place to put a shaft	**79ppb Au, 27ppm Cu,** 14ppm Pb, 36ppm Zn, **3ppm Mo,** 172ppm Cr, **14.0% Fe, 271ppm As, 524ppm W, 149ppm V, 5699ppm Mn, 36ppm Co, 165ppm Ni,** 1 26% Ca,
TTBA Map No 69	Silt sample taken at camp site on Al Cr	**10ppb Au, 46ppm Cu, 64ppm Pb, 152ppm Zn, 6ppm Mo,** 40ppm Cr, **8.04% Fe,** 1 45%Ca, 1 88%Mg, **13ppm As, 202ppm V, 1961ppm Mn, 32ppm Co, 34ppm Ni**
RAL17 Map No 70	Ralph Cr drainage - on claim RAL17, 200m up from main fork on canyon-like wall	6ppb Au, **21ppm Cu, 16ppm Pb, 81ppm Zn,** 1ppm Mo, 56ppm Cr, 2 51% Fe, **9ppm As, 46ppmV, 14ppm Co, 76ppm Ni**
Map No 71	Ralph Cr drainage - on claim RAL19, creek narrow with silt bottom	**8ppb Au, 19ppm Cu,**12ppm Pb, 79ppm Zn, 1ppm Mo, 41ppm Cr, 2 57% Fe, **7ppm As, 46ppm V, 51ppm Ni**
RAL24 Map No 72	Ralph Cr drainage - on claim RAL24, midway up claim, 10' downstream of cave-in of 10' bank	**9ppb Au,** 0 1ppm Ag, **24ppm Cu, 16ppm Pb, 82ppm Zn,** 1ppm Mo, 40ppm Cr, 2 52% Fe, **10ppm As, 50ppm V, 47ppm Ni**
RAL27 Map No 73	Ralph Cr drainage - on claim RAL27	7ppb Au, 0 1ppm Ag, **19ppm Cu,** 12ppm Pb, 79ppm Zn, **2ppm Mo,** 41ppm Cr, 2 45% Fe, **7ppm As,** 44ppm V, **51ppm Ni**
RAL30 Map No 74	Ralph Cr drainage - on claim RAL30, Cr 2' wide with silty bottom, sample taken from under water	**9ppb Au, 23ppm Cu, 19ppm Pb, 84ppm Zn,** 1ppm Mo, 38ppm Cr, **2.65% Fe, 8ppm As, 48ppm V, 32ppm Ni**
F1 Map No 75	Ralph Cr drainage - East tributary 200m up from fork, 2-3 times water flow of West tributary, gravel bottom	**10ppb Au,** 0 3ppm Ag, **38ppm Cu,** 17ppm Pb, **88ppm Zn, 2ppm Mo,** 37ppm Cr, **3.09% Fe, 19ppm As, 76ppm V, 15ppm Co, 28ppm Ni**
BERSLT#61 Map No 76	Cheryl Cr drainage - Taken from side of pit 99-5	7ppb Au, 0 1ppm Ag, 21ppm Cu, **16ppm Pb,** 61ppm Zn, **2ppm Mo,** 27ppm Cr, **2.37% Fe, 18ppm As, 62ppm V**
CH99ST 02 Map No 77	Cheryl Cr drainage	**58ppb Au,** 23ppm Cu, **15ppm Pb,** 81ppm Zn, **2ppm Mo,** 34ppm Cr, **2.93% Fe, 13ppm As, 73ppm V**
CH99ST 03 Map No 78	Cheryl Cr drainage	5ppb Au, 21ppm Cu, **15ppm Pb,** 75ppm Zn, **2ppm Mo,** 30ppm Cr, **2.69 Fe, 15ppm As, 66ppm V**
CH99ST 04	Cheryl Cr drainage	**9ppb Au,** 20ppm Cu, **17ppm Pb,** 72ppm Zn, 1ppm Mo,

Map No 79		30ppm Cr, **2.91% Fe, 8ppm As, 78ppm V**
CH99ST 05 Map No 80	Cheryl Cr drainage	**13ppb Au,** 23ppm Cu, 13ppm Pb, 75ppm Zn **2ppm Mo,** 33ppm Cr, **3.06% Fe, 7ppm As, 81ppmV**
CH99ST 06 Map No 81	Cheryl Cr drainage	**16ppb Au,** 0 1ppm Ag, 23ppm Cu, **29ppm Pb,** 76ppm Zn, **2ppm Mo,** 40ppm Cr, **3.71% Fe, 14ppmAs, 123ppm V**
CH99ST 07 Map No 82	Cheryl Cr drainage	**13ppb Au,** 0 2ppm Ag 20ppm Cu **32ppm Pb,** 70ppm Zn, **2ppm Mo,** 23ppm Cr, 2 40% Fe, **32ppm As**
CH99ST 08 Map No 83	Cheryl Cr drainage	7ppb Au, 23ppm Cu, 12ppm Pb, 63ppm Zn 1ppm Mo, 27ppm Cr, 2 35% Fe, **55ppm V**
mosf99ss01 Map No 84	Cheryl Cr drainage	**12ppb Au, 27ppm Cu, 32ppm Pb,** 51ppm Zn, **3ppm Mo,** 42ppm Cr, **3.29% Fe, 7ppm As, 113ppm V**
mosr99ss01 Map No 85	Cheryl Cr drainage - silt from small main creek in MOSR99R09 area	**13ppb Au,** 18ppm Cu, **22ppm Pb,** 57ppm Zn, **4ppm Mo,** 47ppm Cr, 4 12% Fe, **13ppm Co, 117ppm V**
mcsr99ss02 Map No 86	Cheryl Cr drainage	**25ppb Au, 0.5ppm Ag, 35ppm Cu, 70ppm Pb, 270ppm Zn, 2ppm Mo,** 23ppm Cr, **2.77% Fe, 124ppm As, 18ppmCo, 64ppm V, 2247ppm Mn**
mosf99ss02 Map No 87	Cheryl Cr drainage	**9ppb Au,** 15ppm Cu, **15ppm Pb,** 50ppm Zn, 1ppm Mo, 23ppm Cr, **2.77% Fe, 12ppm As, 66ppm V**
mcsr99ss03 Map No 88	Cheryl Cr drainage	6ppb Au, 0 1ppm Ag, 15ppm Cu, **30ppm Pb,** 66ppm Zn, 1ppm Mo, 18ppm Cr, **2.77% Fe, 21ppm As, 76ppm V**
mosf99ss03 Map No 89	Cheryl Cr drainage	**8ppb Au,** 11ppm Cu, **16ppm Pb,** 44ppm Zn, 1ppm Mo, 15ppm Cr, 1 55% Fe, **13ppm As, 697ppm Mn**
mcsr99ss04 Map No 90	Cheryl Cr drainage	**11ppb Au,** 0 2ppm Ag, **25ppm Cu, 37ppm Pb, 97ppm Zn, 2ppm Mo,** 24ppm Cr, **2.95% Fe, 34ppm As, 73ppm V**
mosf99ss04 Map No 91	Cheryl Cr drainage - silt from main Cr	7ppb Au, 13ppm Cu, **16ppm Pb,** 46ppm Zn, 1ppm Mo, 19ppm Cr, 1 86% Fe, **8ppm As**
mcsr99ss05 Map No 92	Cheryl Cr drainage - silt from East side small Cr	**20ppb Au,** 0 1ppm Ag, **33ppm Cu, 25ppm Pb,** 84ppm Zn, **2ppm Mo,** 28ppm Cr, **2.66% Fe, 21ppm As, 16ppm Co, 73ppm V, 802ppm Mn**
mosf99ss05 Map No 93	Cheryl Cr drainage	**10ppb Au,** 18ppm Cu, 12ppm Pb, 53ppm Zn, 1ppm Mo 40ppm Cr, 2 16% Fe, **52ppm V**
mosf99ss06	Cheryl Cr drainage	**17ppb Au, 30ppm Cu, 17ppm Pb,** 81ppm Zn, 1ppm

Map No 94		Mo, 21ppm Cr, **2.59% Fe, 10ppm As**
mosf99ss07 Map No 95	Cheryl Cr drainage	6ppb Au, **29ppm Cu,** 10ppm Pb, 73ppm Zn, **2ppm Mo**, 38ppm Cr, **2.71% Fe, 8ppm As, 12ppm Co, 28ppm Ni, 64ppm V**
mosf99ss08 Map No 96	Cheryl Cr drainage	**10ppb Au, 26ppm Cu**, 12ppm Pb, 76ppm Zn, 1ppm Mo, 24ppm Cr, 2 47% Fe, 5ppm As, **56ppm V**
mosf99ss09 Map No 97	Cheryl Cr drainage	**10ppb Au,** 21ppm Cu, 10ppm Pb, 75ppm Zn, 1ppm Mo, 28ppm Cr, 2 56% Fe, **7ppm As, 58ppm V**
mosf99ss10 Map No 98	Cheryl Cr drainage	**12ppb Au, 29ppm Cu, 15ppm Pb**, 85ppm Zn, 1ppm Mo, 29ppm Cr, **2.68% Fe**, 5ppm As, **12ppm Co, 59ppm V**

CERTIFICATE OF ANALYSIS

FIFTY MILE - SHEET (A)

iPL 01J1205

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Client Northern Analytical Laboratories — **96 Samples** — Out Oct 31 2001 — Page 2 of 3
Project WO#00241 — 96=Pulp 1=Std iPL — [120516 21 09 10103101] — In Oct 24 2001 — Section 1 of 2

	Sample Name	Type	Au ppb	Pt ppb	Pd ppb	Ag ppm	Cu ppm	Pb ppm	Zn ppm	As ppm	Sb ppm	Hg ppm	Mo ppm	Tl ppm	Bi ppm	Cd ppm	Co ppm	Ni ppm	Ba ppm	W ppm
1	FM080506SS	Pulp	—	—	—	<0.1	15	20	52	<5	<5	<3	2	<10	<2	<0.1	9	30	149	<5
2	FM080508SS	Pulp	—	—	—	<0.1	16	24	71	<5	<5	<3	4	<10	<2	<0.1	20	102	144	<5
3	FM080509SS	Pulp	—	—	—	<0.1	17	15	57	<5	<5	<3	2	<10	<2	<0.1	11	61	163	<5
4	FM080510SS	Pulp	—	—	—	<0.1	32	24	68	<5	<5	<3	4	<10	<2	<0.1	13	21	195	5
5	FM080512SS	Pulp	—	—	—	<0.1	31	22	72	<5	<5	<3	4	<10	<2	<0.1	13	39	169	<5
6	FM080514SS	Pulp	—	—	—	<0.1	34	28	81	<5	<5	<3	4	<10	<2	<0.1	14	39	166	<5
7	FM080515SS	Pulp	—	—	—	<0.1	26	20	64	<5	<5	<3	3	<10	<2	<0.1	13	41	178	<5
8	FM080518R	Pulp	—	—	—	0.6	241	200	204	<5	<5	<3	7	<10	<2	<0.1	10	5	112	<5
9	FM080601P1	Pulp	—	—	—	<0.1	18	4	13	<5	<5	<3	1	<10	3	<0.1	2	10	60	<5
10	FM080601SS	Pulp	—	—	—	<0.1	22	21	66	<5	<5	<3	3	<10	<2	<0.1	12	27	176	<5
11	FM080603SS	Pulp	—	—	—	0.1	19	25	67	<5	<5	<3	3	<10	<2	<0.1	13	23	193	<5
12	FM080608R	Pulp	—	—	—	0.2	12	26	23	<5	<5	<3	5	<10	<2	<0.1	3	5	40	<5
13	FM080609SS	Pulp	—	—	—	<0.1	13	29	54	<5	<5	<3	2	<10	<2	<0.1	8	13	100	<5
14	FM080610S	Pulp	—	—	—	<0.1	31	142	84	<5	<5	<3	4	<10	<2	<0.1	10	18	101	<5
15	FM080701R	Pulp	—	—	—	<0.1	9	20	57	<5	<5	<3	4	<10	<2	<0.1	13	46	33	<5
16	FM080701 P2	Pulp	—	—	—	<0.1	7	<2	8	<5	<5	<3	1	<10	<2	<0.1	1	5	29	<5
17	FM080702 P2	Pulp	—	—	—	<0.1	9	2	18	<5	<5	<3	3	<10	<2	<0.1	2	7	93	<5
18	FM080701 P4R	Pulp	—	—	—	<0.1	7	7	9	<5	<5	<3	<1	<10	<2	<0.1	1	3	57	<5
19	FM080701 P4S	Pulp	—	—	—	<0.1	19	10	51	<5	<5	<3	2	<10	<2	<0.1	6	11	82	<5
20	FM080801R	Pulp	—	—	—	<0.1	40	31	83	<5	<5	<3	4	<10	<2	<0.1	13	34	91	<5
21	FM081001R	Pulp	—	—	—	0.3	95	11	77	<5	<5	<3	24	<10	<2	<0.1	18	56	136	7
22	FM081002R	Pulp	—	—	—	<0.1	24	6	19	<5	<5	<3	3	<10	<2	<0.1	10	60	158	<5
23	FM081101RA	Pulp	—	—	—	<0.1	6	7	47	<5	<5	<3	3	<10	<2	<0.1	12	8	198	7
24	FM081101RB	Pulp	—	—	—	<0.1	4	2	4	<5	<5	<3	1	<10	<2	<0.1	1	3	19	<5
25	FM081102R	Pulp	—	—	—	0.3	17	7	6	<5	<5	<3	3	<10	<2	<0.1	2	4	9	<5
	FM080405SS 20	Pulp	<2	<15	<1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	FM080405SS 100	Pulp	<2	<15	<1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	FM072201R 2+140	Pulp	<2	<15	<1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	FM072201R 2 140	Pulp	<2	<15	<1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	FM080611R+140	Pulp	<2	<15	<1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	FM080611R 140	Pulp	<2	<15	<1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
13	~~FG070902P~~ FM	Pulp	<2	<15	<1	<0.1	24	13	33	<5	<5	<3	3	<10	<2	<0.1	8	14	110	15
26	FM071703R	Pulp	<2	<15	<1	<0.1	24	11	42	<5	<5	<3	4	<10	<2	<0.1	18	13	60	7
27	FM071901R	Pulp	<2	<15	<1	<0.1	19	11	78	<5	<5	<3	6	<10	<2	<0.1	16	6	56	<5
28	FM072201R 1	Pulp	<2	<15	<1	<0.1	39	28	24	<5	<5	<3	5	<10	<2	<0.1	13	31	84	6
29	FM072501R	Pulp	<2	<15	<1	<0.1	6	19	23	<5	<5	<3	7	<10	<2	<0.1	18	74	64	5
30	FM072503R	Pulp	<2	<15	<1	<0.1	38	19	22	<5	<5	<3	4	<10	<2	<0.1	11	34	111	8
31	FM072602R	Pulp	<2	<15	<1	<0.1	32	19	57	<5	<5	<3	6	<10	<2	<0.1	25	109	35	<5
32	FM073002R	Pulp	6	<15	1	<0.1	4	7	9	19	<5	<3	6	<10	<2	<0.1	1	2	16	<5
	Minimum Detection		2	15	1	0.1	1	2	1	5	5	3	1	10	2	0.1	1	1	2	5
	Maximum Detection		10000	10000	10000	100.0	20000	20000	20000	10000	1000	10000	1000	1000	10000	100.0	10000	10000	10000	1000
	Method		FA/AAS	FA/AAS	FA/AAS	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP

—=No Test Ins=Insufficient Sample Del=Delay Max=No Estimate Rec=Recheck m=x1000 %=Estimate % NS=No Sample

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CERTIFICATE OF ANALYSIS

iPL 01J1205

FIFTYMILE - SHEET (A) Cont'd

Client Northern Analytical Laboratories
Project WO#00241

96 Samples
96=Pulp 1=Std iPL

[120516 21 09 10103101]

Out Oct 31 2001
In Oct 24 2001

	Sample Name	Cr ppm	V ppm	Mn ppm	La ppm	Sr ppm	Zr ppm	Sc ppm	Ti %	Al %	Ca %	Fe %	Mg %	K %	Na %	P %
A 1	FM080506SS	28	32	221	10	21	1	2	0 04	1 04	0 42	1 55	0 49	0 04	0 02	0 05
2	FM080508SS	49	37	640	10	27	1	2	0 04	1 17	0 40	1 88	0 78	0 05	0 02	0 04
3	FM080509SS	41	34	237	11	25	2	3	0 05	1 23	0 51	1 74	0 71	0 05	0 03	0 05
4	FM080510SS	33	62	486	10	41	1	4	0 10	1 81	0 60	2 45	0 82	0 12	0 03	0 06
5	FM080512SS	43	50	338	16	36	1	4	0 09	1 58	0 63	2 41	0 83	0 12	0 03	0 10
6	FM080514SS	50	54	346	22	39	2	4	0 11	1 63	0 73	2 58	0 90	0 16	0 03	0 14
7	FM080515SS	43	49	355	12	36	1	3	0 08	1 50	0 57	2 19	0 77	0 09	0 03	0 07
8	FM080518R	99	71	906	12	6	3	10	0 17	2 71	0 10	3 43	2 91	1 86	0 04	0 03
9	FM080601P1	154	5	64	4	3	1	<1	0 01	0 17	0 07	0 41	0 16	0 08	0 02	0 02
10	FM080601SS	22	39	237	14	26	3	3	0 06	1 21	0 47	1 96	0 56	0 06	0 03	0 06
11	FM080603SS	33	46	516	19	25	3	3	0 06	1 44	0 48	2 13	0 72	0 07	0 03	0 05
12	FM080608R	92	4	101	30	8	14	1	<0 01	0 34	0 14	1 36	0 22	0 13	0 05	0 02
13	FM080609SS	18	36	205	17	19	2	3	0 07	1 17	0 45	1 73	0 45	0 11	0 03	0 09
14	FM080610S	24	44	263	25	23	1	4	0 08	1 45	0 64	2 20	0 67	0 16	0 04	0 14
15	FM080701R	90	36	230	22	11	1	4	<0 01	1 25	0 12	3 77	0 83	0 10	0 08	0 03
16	FM080701 P2	163	4	29	<2	1	<1	<1	<0 01	0 07	0 03	0 30	0 06	0 02	0 02	<0 01
17	FM080702 P2	150	15	56	2	3	2	1	0 02	0 26	0 07	0 51	0 21	0 09	0 02	0 02
18	FM080701 P4R	86	2	45	5	20	1	<1	0 02	0 30	0 15	0 33	0 11	0 12	0 03	0 02
19	FM080701 P4S	16	11	231	21	30	5	1	0 05	0 86	0 36	0 89	0 65	0 22	0 02	0 06
20	FM080801R	110	48	622	5	28	1	4	0 12	1 23	2 38	2 43	1 07	0 20	0 03	0 06
21	FM081001R	123	178	325	15	9	4	11	0 07	1 99	0 26	2 96	2 12	0 57	0 03	0 10
22	FM081002R	166	49	622	<2	59	<1	6	0 05	0 69	3 03	1 60	0 95	0 32	0 02	<0 01
23	FM081101RA	101	47	540	20	8	1	6	0 18	1 54	0 38	2 65	0 75	0 93	0 07	0 08
24	FM081101RB	72	<2	95	3	2	2	<1	<0 01	0 14	0 05	0 18	0 01	0 09	0 04	0 01
25	FM081102R	72	2	16	7	2	2	<1	<0 01	0 09	0 02	2 71	0 01	0 10	0 03	<0 01
	FM080405SS 20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	FM080405SS 100	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	FM072201R 2+140	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	FM072201R 2 140	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	FM080611R+140	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	FM080611R 140	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
33	~~FG~~070902P FM	273	40	430	34	23	4	4	0 11	1 06	0 87	1 99	0 37	0 25	0 15	0 17
26	FM071703R	54	97	522	14	17	3	8	0 19	1 66	0 55	3 93	1 11	0 04	0 04	0 11
27	FM071901R	15	76	1186	14	114	2	6	<0 01	1 51	3 10	4 43	1 46	0 22	0 03	0 15
28	FM072201R 1	140	87	311	3	281	1	4	0 15	4 89	3 14	2 76	0 66	0 40	0 68	0 05
29	FM072501R	214	149	219	4	460	3	1	0 15	5 92	4 39	5 51	0 31	0 17	0 41	0 11
30	FM072503R	185	117	187	4	321	3	1	0 13	4 42	3 13	4 32	0 25	0 10	0 36	0 11
31	FM072602R	192	51	531	10	32	6	3	0 11	2 28	0 70	2 90	3 00	0 04	0 05	0 13
32	FM073002R	66	3	569	26	153	2	1	<0 01	0 24	5 50	0 77	0 13	0 11	0 03	0 02
	Minimum Detection	1	2	1	2	1	1	1	0 01	0 01	0 01	0 01	0 01	0 01	0 01	0 01
	Maximum Detection	10000	10000	10000	10000	10000	10000	10000	1 00	10 00	10 00	10 00	10 00	10 00	5 00	5 00
	Method	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP

——=No Test Ins=Insufficient Sample Del=Delay Max=No Estimate Rec=ReCheck m=x1000 %=Estimate % NS=No Sample

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CERTIFICATE OF ANALYSIS

FIFTYMILE - SHEET (B)

IPL 01J1206

Client Northern Analytical Laboratories
Project WO#00241

10 Samples
10=Pulp

[120614 34 46 10102901]

Out Oct 29 2001
In Oct 24 2001

	Sample Name	Type	Au ppb	Pt ppb	Pd ppb	Ta ppm	Ag ppm	Cu ppm	Pb ppm	Zn ppm	As ppm	Sb ppm	Hg ppm	Mo ppm	Tl ppm	Bi ppm	Cd ppm	Co ppm	Ni ppm	Ba ppm
1	FM071603R	Pulp	—	—	—	4	<0 1	25	40	25	<5	<5	<3	2	<2	<2	<0 1	1	12	25
2	FM071603S	Pulp	—	—	—	<2	<0 1	16	40	61	<5	<5	<3	4	<2	<2	<0 1	19	17	661
3	FM071604S	Pulp	—	—	—	<2	<0 1	32	107	60	<5	<5	<3	6	<2	<2	<0 1	22	22	670
4	FM071801R	Pulp	—	—	—	<2	<0 1	4	50	20	<5	<5	<3	2	<2	2	<0 1	1	2	31
5	FM071902R	Pulp	—	—	—	<2	<0 1	6	44	22	<5	<5	<3	2	<2	<2	<0 1	1	4	29
6	FM071903R	Pulp	—	—	—	8	<0 1	5	50	14	<5	<5	<3	2	<2	3	<0 1	1	3	205
7	FM073009R	Pulp	—	—	—	<2	<0 1	3	57	19	<5	<5	<3	3	<2	2	<0 1	2	3	65
8	FM080307R	Pulp	—	—	—	<2	<0 1	4	46	19	<5	<5	<3	3	<2	3	<0 1	2	4	187
9	FM080611R	Pulp	—	—	—	<2	<0 1	30	26	63	<5	<5	<3	7	<2	<2	<0 1	33	111	1177
10	FM080301S	Pulp	<2	<15	1	<2	0 5	66	51	160	<5	<5	<3	11	<2	<2	<0 1	31	79	1067
	Minimum Detection		2	15	1	2	0 1	1	2	1	5	5	3	1	2	2	0 1	1	1	2
	Maximum Detection		10000	10000	10000	10000	100 0	20000	20000	20000	10000	1000	10000	1000	1000	10000	1000 0	10000	10000	10000
	Method		FA/AAS	FA/AAS	FA/AAS	ICPM	ICPM	ICPM	ICPM	ICPM	ICPM	ICPM	ICPM	ICPM	ICPM	ICPM	ICPM	ICPM	ICPM	ICPM

—=No Test Ins=Insufficient Sample Del=Delay Max=No Estimate Rec=ReCheck m=x1000 %=Estimate ‰ NS=No Sample

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CERTIFICATE OF ANALYSIS
IPL 01J1206

FIFTYMILE - SHEET (B)

Client Northern Analytical Laboratories
Project WO#00241

10 Samples
10=Pulp

[120614 34 46 10102901]

Out Oct 29 2001
In Oct 24 2001

	Sample Name	Type	Au ppb	Pt ppb	Pd ppb	Ta ppm	Ag ppm	Cu ppm	Pb ppm	Zn ppm	As ppm	Sb ppm	Hg ppm	Mo ppm	Tl ppm	Bi ppm	Cd ppm	Co ppm	Ni ppm	Ba ppm
1	FM071603R	Pulp	—	—		4	<0 1	25	40	25	<5	<5	<3	2	<2	<2	<0 1	1	12	25
2	FM071603S	Pulp	—	—	—	<2	<0 1	16	40	61	<5	<5	<3	4	<2	<2	<0 1	19	17	661
3	FM071604S	Pulp	—	—	—	<2	<0 1	32	107	60	<5	<5	<3	6	<2	<2	<0 1	22	22	670
4	FM071801R	Pulp	—	—		<2	<0 1	4	50	20	<5	<5	<3	2	<2	2	<0 1	1	2	31
5	FM071902R	Pulp	—	—	—	<2	<0 1	6	44	22	<5	<5	<3	2	<2	<2	<0 1	1	4	29
6	FM071903R	Pulp	—	—	—	8	<0 1	5	50	14	<5	<5	<3	2	<2	3	<0 1	1	3	205
7	FM073009R	Pulp	—	—	—	<2	<0 1	3	57	19	<5	<5	<3	3	<2	2	<0 1	2	3	65
8	FM080307R	Pulp	—	—		<2	<0 1	4	46	19	<5	<5	<3	3	<2	3	<0 1	2	4	187
9	FM080611R	Pulp	—	—	—	<2	<0 1	30	26	63	<5	<5	<3	7	<2	<2	<0 1	33	111	1177
10	FM080301S	Pulp	<2	<15	1	<2	0 5	66	51	160	<5	<5	<3	11	<2	<2	<0 1	31	79	1067
	Minimum Detection		2	15	1	2	0 1	1	2	1	5	5	3	1	2	2	0 1	1	1	2
	Maximum Detection		10000	10000	10000	10000	100 0	20000	20000	20000	10000	1000	10000	1000	1000	10000	1000 0	10000	10000	10000
	Method		FA/AAS	FA/AAS	FA/AAS	ICPM	ICPM	ICPM	ICPM	ICPM	ICPM	ICPM	ICPM	ICPM	ICPM	ICPM	ICPM	ICPM	ICPM	ICPM

—=No Test Ins=Insufficient Sample Del=Delay Max=No Estimate Rec=ReCheck m=x1000 %=Estimate % NS=No Sample

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CERTIFICATE OF ANALYSIS

FIFTYMILE - SHEET (C)

iPL 01J1205

Client Northern Analytical Laboratories
Project WO#00241

96 Samples
96=Pulp 1=Std iPL

[120516 21 09 10103101]

Out Oct 31 2001
In Oct 24 2001

	Sample Name	Type	Au ppb	Pt ppb	Pd ppb	Ag ppm	Cu ppm	Pb ppm	Zn ppm	As ppm	Sb ppm	Hg ppm	Mo ppm	Tl ppm	Bi ppm	Cd ppm	Co ppm	Ni ppm	Ba ppm	W ppm
C 1	FM073101SS	Pulp	2	<15	17	<0 1	34	59	63	<5	<5	<3	4	<10	<2	<0 1	13	17	185	<5
2	FM073103R	Pulp	<2	<15	2	<0 1	6	6	22	<5	10	<3	6	<10	<2	<0 1	73	1513	5	<5
3	FM073104S	Pulp	<2	<15	<1	<0 1	21	23	47	<5	<5	<3	4	<10	<2	<0 1	28	371	180	<5
4	FM080305SS	Pulp	<2	<15	1	0 4	35	115	62	<5	<5	<3	3	<10	<2	<0 1	14	82	181	<5
5	FM080405SS 200	Pulp	<2	<15	<1	<0 1	23	19	52	<5	<5	<3	3	<10	<2	<0 1	13	20	178	<5
6	FM080406SS	Pulp	<2	<15	19	0 3	38	40	79	<5	<5	<3	3	<10	<2	<0 1	14	30	209	<5
7	FM080407SS	Pulp	<2	<15	<1	0 1	33	121	76	<5	<5	<3	3	<10	<2	<0 1	13	28	185	5
8	FM080501SS	Pulp	<2	<15	<1	<0 1	27	20	65	<5	<5	<3	2	<10	<2	<0 1	13	26	244	<5
9	FM080502SS	Pulp	<2	<15	<1	<0 1	16	15	56	<5	<5	<3	2	<10	<2	<0 1	11	39	165	<5
10	FM080503R	Pulp	<2	<15	<1	<0 1	4	2	11	<5	13	<3	5	<10	<2	<0 1	51	1109	<2	<5
11	FM080504SS	Pulp	<2	<15	<1	0 1	14	14	54	<5	<5	<3	1	<10	<2	<0 1	7	18	286	<5
12	FM080507SS	Pulp	<2	<15	<1	<0 1	14	17	50	<5	<5	<3	3	<10	<2	<0 1	10	21	166	5
13	FM080511SS	Pulp	<2	<15	<1	<0 1	28	18	61	<5	<5	<3	3	<10	<2	<0 1	12	19	179	<5
14	FM080513SS	Pulp	<2	<15	<1	0 1	33	22	75	<5	<5	<3	3	<10	<2	<0 1	14	39	204	<5
15	FM080516SS	Pulp	<2	<15	<1	<0 1	25	21	62	<5	<5	<3	3	<10	<2	<0 1	13	37	176	<5
16	FM080517R	Pulp	<2	<15	<1	0 2	38	22	88	<5	<5	<3	4	<10	<2	<0 1	23	95	69	<5
17	FM080602SS	Pulp	<2	<15	<1	<0 1	12	18	53	<5	<5	<3	3	<10	<2	<0 1	8	16	131	5
18	FM081106R	Pulp	<2	<15	<1	<0 1	25	10	57	<5	<5	<3	6	<10	<2	<0 1	28	29	145	<5
	STD 101	Std iPL	68	250	520	<0 1	25	10	57	<5	<5	<3	6	<10	<2	<0 1	28	29	145	<5
	Minimum Detection		2	15	1	0 1	1	2	1	5	5	3	1	10	2	0 1	1	1	2	5
	Maximum Detection		10000	10000	10000	100 0	20000	20000	20000	10000	1000	10000	1000	1000	10000	100 0	10000	10000	10000	1000
	Method		FA/AAS	FA/AAS	FA/AAS	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP

—=No Test Ins=Insufficient Sample Del=Delay Max=No Estimate Rec=ReCheck m=x1000 %=Estimate % NS=No Sample

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CERTIFICATE OF ANALYSIS

FIFTYMILE - SHEET (C)

iPL 01J1205

ISO 9002

Client Northern Analytical Laboratories
Project WO#00241

96 Samples
96=Pulp 1=Std iPL

[120516 21 09 10103101]

Out Oct 31 2001
In Oct 24 2001

	Sample Name	Type	Au ppb	Pt ppb	Pd ppb	Ag ppm	Cu ppm	Pb ppm	Zn ppm	As ppm	Sb ppm	Hg ppm	Mo ppm	Tl ppm	Bi ppm	Cd ppm	Co ppm	Ni ppm	Ba ppm	W ppm
1	FM073101SS	Pulp	2	<15	17	<0 1	34	59	63	<5	<5	<3	4	<10	<2	<0 1	13	17	185	<5
2	FM073103R	Pulp	<2	<15	2	<0 1	6	6	22	<5	10	<3	6	<10	<2	<0 1	73	1513	5	<5
3	FM073104S	Pulp	<2	<15	<1	<0 1	21	23	47	<5	<5	<3	4	<10	<2	<0 1	28	371	180	<5
4	FM080305SS	Pulp	<2	<15	1	0 4	35	115	62	<5	<5	<3	3	<10	<2	<0 1	14	82	181	<5
5	FM080405SS 200	Pulp	<2	<15	<1	<0 1	23	19	52	<5	<5	<3	3	<10	<2	<0 1	13	20	178	<5
6	FM080406SS	Pulp	<2	<15	19	0 3	38	40	79	<5	<5	<3	3	<10	<2	<0 1	14	30	209	<5
7	FM080407SS	Pulp	<2	<15	<1	0 1	33	121	76	<5	<5	<3	3	<10	<2	<0 1	13	28	185	5
8	FM080501SS	Pulp	<2	<15	<1	<0 1	27	20	65	<5	<5	<3	2	<10	<2	<0 1	13	26	244	<5
9	FM080502SS	Pulp	<2	<15	<1	<0 1	16	15	56	<5	<5	<3	2	<10	<2	<0 1	11	39	165	<5
10	FM080503R	Pulp	<2	<15	<1	<0 1	4	2	11	<5	13	<3	5	<10	<2	<0 1	51	1109	<2	<5
11	FM080504SS	Pulp	<2	<15	<1	0 1	14	14	54	<5	<5	<3	1	<10	<2	<0 1	7	18	286	<5
12	FM080507SS	Pulp	<2	<15	<1	<0 1	14	17	50	<5	<5	<3	3	<10	<2	<0 1	10	21	166	5
13	FM080511SS	Pulp	<2	<15	<1	<0 1	28	18	61	<5	<5	<3	3	<10	<2	<0 1	12	19	179	<5
14	FM080513SS	Pulp	<2	<15	<1	0 1	33	22	75	<5	<5	<3	3	<10	<2	<0 1	14	39	204	<5
15	FM080516SS	Pulp	<2	<15	<1	<0 1	25	21	62	<5	<5	<3	3	<10	<2	<0 1	13	37	176	<5
16	FM080517R	Pulp	<2	<15	<1	0 2	38	22	88	<5	<5	<3	4	<10	<2	<0 1	23	95	69	<5
17	FM080602SS	Pulp	<2	<15	<1	<0 1	12	18	53	<5	<5	<3	3	<10	<2	<0 1	8	16	131	5
18	FM081106R	Pulp	<2	<15	<1	<0 1	25	10	57	<5	<5	<3	6	<10	<2	<0 1	28	29	145	<5
	STD 101	Std iPL	68	250	520	<0 1	25	10	57	<5	<5	<3	6	<10	<2	<0 1	28	29	145	<5
	Minimum Detection		2	15	1	0 1	1	2	1	5	5	3	1	10	2	0 1	1	1	2	5
	Maximum Detection		10000	10000	10000	100 0	20000	20000	20000	10000	1000	10000	1000	1000	10000	100 0	10000	10000	10000	1000
	Method		FA/AAS	FA/AAS	FA/AAS	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP

—=No Test Ins=Insufficient Sample Del=Delay Max=No Estimate Rec=ReCheck m=x1000 %=Estimate % NS=No Sample

CERTIFICATE OF ANALYSIS

FIFTYMILE - SHEET (D)

iPL 01J1205

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Client Northern Analytical Laboratories
Project WO#00241

96 Samples
96=Pulp 1=Std iPl

[120516 21 09 10103101]

Out Oct 31 2001
In Oct 24 2001

	Sample Name	Type	Au ppb	Pt ppb	Pd ppb	Ag ppm	Cu ppm	Pb ppm	Zn ppm	As ppm	Sb ppm	Hg ppm	Mo ppm	Tl ppm	Bi ppm	Cd ppm	Co ppm	Ni ppm	Ba ppm	W ppm
	FG060702P	Pulp	—	—	—	<0 1	13	6	29	<5	<5	<3	1	<10	<2	<0 1	3	4	95	<5
	FG060703P	Pulp	—	—	—	<0 1	13	17	38	<5	<5	<3	2	<10	<2	<0 1	2	5	67	<5
	FG060803S	Pulp	—	—	—	0 1	17	26	9	<5	<5	<3	<1	<10	<2	<0 1	<1	2	231	<5
	FG060804S	Pulp	—	—	—	0 1	5	9	18	<5	<5	<3	1	<10	<2	<0 1	1	2	168	<5
	FG060901P	Pulp	—	—	—	0 1	39	20	90	<5	<5	<3	4	<10	<2	<0 1	14	37	195	<5
	FG060902P	Pulp	—	—	—	0 3	47	21	103	<5	<5	<3	5	<10	<2	<0 1	17	44	243	<5
	FG060903P	Pulp	—	—	—	0 1	9	32	45	<5	9	<3	2	<10	<2	<0 1	6	3	312	<5
	FG060904P	Pulp	—	—	—	0 1	19	31	58	<5	<5	<3	1	<10	<2	<0 1	5	4	250	<5
	FG072201P	Pulp	—	—	—	<0 1	14	15	28	<5	<5	<3	2	<10	<2	<0 1	2	5	110	<5
	FG072301P	Pulp	—	—	—	<0 1	7	8	21	<5	<5	<3	2	<10	<2	<0 1	3	6	118	<5
1	~~FG~~080606S FM	Pulp	—	—	—	<0 1	47	22	55	<5	<5	<3	3	<10	<2	<0 1	12	23	160	<5
2	~~FG~~080903SS FM	Pulp	—	—	—	<0 1	17	13	54	<5	<5	<3	4	<10	<2	<0 1	9	16	168	<5
3	~~FG~~081003S FM	Pulp	—	—	—	<0 1	10	7	41	<5	<5	<3	3	<10	<2	<0 1	12	11	131	<5
4	FM070903S	Pulp	—	—	—	<0 1	22	17	55	<5	<5	<3	4	<10	<2	<0 1	11	19	230	<5
5	FM070904S	Pulp	—	—	—	<0 1	10	12	36	<5	<5	<3	2	<10	<2	<0 1	7	10	67	<5
6	FM070905S	Pulp	—	—	—	<0 1	8	10	38	<5	<5	<3	3	<10	<2	<0 1	10	12	118	<5
7	FM071601S	Pulp	—	—	—	0 1	14	22	48	<5	<5	<3	2	<10	<2	<0 1	13	12	140	<5
8	FM071602R	Pulp	—	—	—	<0 1	20	4	4	<5	<5	<3	<1	<10	<2	<0 1	1	12	7	<5
9	FM071701S	Pulp	—	—	—	0 1	28	14	66	<5	<5	<3	4	<10	<2	<0 1	14	26	377	6
10	FM071805S	Pulp	—	—	—	<0 1	14	27	51	<5	<5	<3	2	<10	<2	<0 1	9	16	175	<5
11	FM071805R	Pulp	—	—	—	1 6	159	34	628	<5	<5	<3	5	<10	<2	4 5	2	6	151	<5
12	FM071806R	Pulp	—	—	—	2 2	66	84	666	31	<5	<3	6	<10	<2	4 1	3	13	34	<5
13	FM071807R	Pulp	—	—	—	1 7	25	65	232	7	<5	<3	3	<10	<2	1 3	1	7	45	<5
14	FM071808R	Pulp	—	—	—	1 2	10	124	141	26	<5	<3	2	<10	<2	<0 1	3	9	27	<5
15	FM071809R	Pulp	—	—	—	0 9	81	27	41	<5	<5	<3	4	<10	<2	<0 1	6	12	98	<5
16	FM072201R 2	Pulp	—	—	—	0 2	39	30	24	<5	<5	<3	4	<10	<2	<0 1	14	31	84	<5
17	FM072504R	Pulp	—	—	—	0 3	75	9	9	<5	<5	<3	3	<10	<2	<0 1	38	84	17	<5
18	FM072601R	Pulp	—	—	—	0 5	56	26	176	<5	<5	<3	18	<10	<2	2 6	16	64	76	<5
19	FM073001R	Pulp	—	—	—	<0 1	3	<2	9	<5	<5	<3	2	<10	<2	<0 1	1	2	11	<5
20	FM073003SOIL	Pulp	—	—	—	0 1	18	23	53	<5	<5	<3	3	<10	<2	<0 1	11	16	245	<5
21	FM080101R	Pulp	—	—	—	0 1	58	14	32	<5	<5	<3	3	<10	<2	<0 1	5	9	300	<5
22	FM080102SS	Pulp	—	—	—	0 1	19	30	53	<5	<5	<3	4	<10	<2	<0 1	11	20	205	<5
23	FM080302R	Pulp	—	—	—	<0 1	8	12	38	<5	<5	<3	2	<10	<2	<0 1	3	2	76	<5
24	FM080303SS	Pulp	—	—	—	0 4	33	539	94	<5	<5	<3	3	<10	<2	<0 1	15	42	215	<5
25	FM080306R	Pulp	—	—	—	0 1	18	13	52	<5	<5	<3	6	<10	<2	<0 1	11	9	84	<5
26	FM080501R	Pulp	—	—	—	0 1	26	9	62	<5	<5	<3	4	<10	<2	<0 1	15	12	80	<5
27	FM080502R	Pulp	—	—	—	0 6	12	24	42	<5	<5	<3	9	<10	<2	<0 1	1	6	162	<5
28	FM080503MS	Pulp	—	—	—	0 3	23	42	73	<5	<5	<3	4	<10	<2	<0 1	13	30	171	<5
29	FM080505SS	Pulp	—	—	—	0 2	22	22	64	<5	<5	<3	2	<10	<2	<0 1	12	73	202	<5
	Minimum Detection		2	15	1	0 1	1	2	1	5	5	3	1	10	2	0 1	1	1	2	5
	Maximum Detection		10000	10000	10000	100 0	20000	20000	20000	10000	1000	10000	1000	1000	10000	100 0	10000	10000	10000	1000
	Method		FA/AAS	FA/AAS	FA/AAS	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP

—=No Test Ins=Insufficient Sample Del=Delay Max=No Estimate Rec=ReCheck m=x1000 %=Estimate % NS=No Sample

CERTIFICATE OF ANALYSIS

FIFTYMILE - SHEET (D)

iPL 01J1205

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ISO 9002

Client Northern Analytical Laboratories
Project WO#00241

96 Samples
96=Pulp 1=Std iPL

[120516 21 09 10103101]

Out Oct 31 2001
In Oct 24 2001

	Sample Name	Type	Au ppb	Pt ppb	Pd ppb	Ag ppm	Cu ppm	Pb ppm	Zn ppm	As ppm	Sb ppm	Hg ppm	Mo ppm	Tl ppm	Bi ppm	Cd ppm	Co ppm	Ni ppm	Ba ppm	W ppm
	FG060702P	Pulp	—	—	—	<0 1	13	6	29	<5	<5	<3	1	<10	<2	<0 1	3	4	95	<5
	FG060703P	Pulp	—	—	—	<0 1	13	17	38	<5	<5	<3	2	<10	<2	<0 1	2	5	67	<5
	FG060803S	Pulp	—	—	—	0 1	17	26	9	<5	<5	<3	<1	<10	<2	<0 1	<1	2	231	<5
	FG060804S	Pulp	—	—	—	0 1	5	9	18	<5	<5	<3	1	<10	<2	<0 1	1	2	168	<5
	FG060901P	Pulp	—	—	—	0 1	39	20	90	<5	<5	<3	4	<10	<2	<0 1	14	37	195	<5
	FG060902P	Pulp	—	—	—	0 3	47	21	103	<5	<5	<3	5	<10	<2	<0 1	17	44	243	<5
	FG060903P	Pulp	—	—	—	0 1	9	32	45	<5	9	<3	2	<10	<2	<0 1	6	3	312	<5
	FG060904P	Pulp	—	—	—	0 1	19	31	58	<5	<5	<3	1	<10	<2	<0 1	5	4	250	<5
	FG072201P	Pulp	—	—	—	<0 1	14	15	28	<5	<5	<3	2	<10	<2	<0 1	2	5	110	<5
	FG072301P	Pulp	—	—	—	<0 1	7	8	21	<5	<5	<3	2	<10	<2	<0 1	3	6	118	<5
1	~~FG~~080606S FM	Pulp	—	—	—	<0 1	47	22	55	<5	<5	<3	3	<10	<2	<0 1	12	23	160	<5
2	~~FG~~080903SS FM	Pulp	—	—	—	<0 1	17	13	54	<5	<5	<3	4	<10	<2	<0 1	9	16	168	<5
3	~~FG~~081003S FM	Pulp	—	—	—	<0 1	10	7	41	<5	<5	<3	3	<10	<2	<0 1	12	11	131	<5
4	FM070903S	Pulp	—	—	—	<0 1	22	17	55	<5	<5	<3	4	<10	<2	<0 1	11	19	230	<5
5	FM070904S	Pulp	—	—	—	<0 1	10	12	36	<5	<5	<3	2	<10	<2	<0 1	7	10	67	<5
6	FM070905S	Pulp	—	—	—	<0 1	8	10	38	<5	<5	<3	3	<10	<2	<0 1	10	12	118	<5
7	FM071601S	Pulp	—	—	—	0 1	14	22	48	<5	<5	<3	2	<10	<2	<0 1	13	12	140	<5
8	FM071602R	Pulp	—	—	—	<0 1	20	4	4	<5	<5	<3	<1	<10	<2	<0 1	1	12	7	<5
9	FM071701S	Pulp	—	—	—	0 1	28	14	66	<5	<5	<3	4	<10	<2	<0 1	14	26	377	6
10	FM071805S	Pulp	—	—	—	<0 1	14	27	51	<5	<5	<3	2	<10	<2	<0 1	9	16	175	<5
11	FM071805R	Pulp	—	—	—	1 6	159	34	628	<5	<5	<3	5	<10	<2	4 5	2	6	151	<5
12	FM071806R	Pulp	—	—	—	2 2	66	84	666	31	<5	<3	6	<10	<2	4 1	3	13	34	<5
13	FM071807R	Pulp	—	—	—	1 7	25	65	232	7	<5	<3	3	<10	<2	1 3	1	7	45	<5
14	FM071808R	Pulp	—	—	—	1 2	10	124	141	26	<5	<3	2	<10	<2	<0 1	3	9	27	<5
15	FM071809R	Pulp	—	—	—	0 9	81	27	41	<5	<5	<3	4	<10	<2	<0 1	6	12	98	<5
16	FM072201R 2	Pulp	—	—	—	0 2	39	30	24	<5	<5	<3	4	<10	<2	<0 1	14	31	84	<5
17	FM072504R	Pulp	—	—	—	0 3	75	9	9	<5	<5	<3	3	<10	<2	<0 1	38	84	17	<5
18	FM072601R	Pulp	—	—	—	0 5	56	26	176	<5	<5	<3	18	<10	<2	2 6	16	64	76	<5
19	FM073001R	Pulp	—	—	—	<0 1	3	<2	9	<5	<5	<3	2	<10	<2	<0 1	1	2	11	<5
20	FM073003SOIL	Pulp	—	—	—	0 1	18	23	53	<5	<5	<3	3	<10	<2	<0 1	11	16	245	<5
21	FM080101R	Pulp	—	—	—	0 1	58	14	32	<5	<5	<3	3	<10	<2	<0 1	5	9	300	<5
22	FM080102SS	Pulp	—	—	—	0 1	19	30	53	<5	<5	<3	4	<10	<2	<0 1	11	20	205	<5
23	FM080302R	Pulp	—	—	—	<0 1	8	12	38	<5	<5	<3	2	<10	<2	<0 1	3	2	76	<5
24	FM080303SS	Pulp	—	—	—	0 4	33	539	94	<5	<5	<3	3	<10	<2	<0 1	15	42	215	<5
25	FM080306R	Pulp	—	—	—	0 1	18	13	52	<5	<5	<3	6	<10	<2	<0 1	11	9	84	<5
26	FM080501R	Pulp	—	—	—	0 1	26	9	62	<5	<5	<3	4	<10	<2	<0 1	15	12	80	<5
27	FM080502R	Pulp	—	—	—	0 6	12	24	42	<5	<5	<3	9	<10	<2	<0 1	1	6	162	<5
28	FM080503MS	Pulp	—	—	—	0 3	23	42	73	<5	<5	<3	4	<10	<2	<0 1	13	30	171	<5
29	FM080505SS	Pulp	—	—	—	0 2	22	22	64	<5	<5	<3	2	<10	<2	<0 1	12	73	202	<5
	Minimum Detection		2	15	1	0 1	1	2	1	5	5	3	1	10	2	0 1	1	1	2	5
	Maximum Detection		10000	10000	10000	100 0	20000	20000	20000	10000	1000	10000	1000	1000	10000	100 0	10000	10000	10000	1000
	Method		FA/AAS	FA/AAS	FA/AAS	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP

——=No Test Ins=Insufficient Sample Del=Delay Max=No Estimate Rec=ReCheck m=x1000 %=Estimate % NS=No Sample

Northern Analytical Laboratories ltd

105 Copper Road
Whitehorse, Yukon
Y1A 2Z7
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Fax (867) 668-4890
E-mail NAL@yknet.yk.ca

FIFTY MILE

20/10/2001

Certificate of Analysis

Al Rudis

WO# 00241

Certified by

		Sample #	Au ppb	Sample Weights (g)	Total Sample Weight
D8	r	FM071602R	6		
B2	s200	FM071603S	7		
B3	s200	FM071604S	13		
B1	r	FM071603R	5		
B5	r	FM071902R	7		
B7	r	FM073009R	7		
B8	r	FM080307R	<5		
B6	r	FM071903R	9		
A22	r	FM081002R	<5		
A11	s200	FM080603SS	9		
A15	r	FM080701R	12		
D28	s200	FM080503MS	24		
D29	s200	FM080505SS	12		
A1	s200	FM080506SS	15		
A2	s200	FM080508SS	23		
A3	s200	FM080509SS	10		
A4	s200	FM080510SS	13		
A5	s200	FM080512SS	16		
A6	s200	FM080514SS	16		
A7	s200	FM080515SS	8		
D11	r	FM071805R	10		
D12	m	FM071806R +140	9		
D12		FM071806R -140	18		
D13	m	FM071807R +140	6		
D13		FM071807R -140	11		
D14	r	FM071808R	17		
D15	r	FM071809R	11		
D21	r	FM080101R	10		
D22	s200	FM080102SS	9		
B4	r	FM071801R	13		

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E-mail NAL@yknet yk ca

Al Rudis

W.O# 00241

Certified by

		Sample #	Au ppb	Sample Weights (g)	Total Sample Weight
D17	r	FM072504R	14		
D18	r	FM072601R	12		
D19	r	FM073001R	10		
A12	r	FM080608R	10		
D4	s200	FM070903S	9		
D5	s20	FM070904S -20	15	280	1662
D5	s100	FM070904S -100	10	49	
D5	s200	FM070904S -200	15	118	
D6	s20	FM070905S -20	5	329	1600
D6	s100	FM070905S -100	9	66	
D6	s200	FM070905S -200	10	72	
D7	s200	FM071601S	12		
D9	s200	FM071701S	35		
D11	s200	FM071805S	17		
D20	s200	FM073003SOIL	17		
	r	FG060702P	7		
	r	FG060703P	7		
	s20	FG060803S -20	9	567	2205
	s100	FG060803S -100	8	285	
	s200	FG060803S -200	6	89	
	s20	FG060804S -20	7	667	1663
	s100	FG060804S -100	11	115	
	s200	FG060804S -200	17	39	
	s200	FG060901P	14		
	s200	FG060902P	11		
	s200	FG060903P	13		
	s200	FG060904P	13		
	s20	FG072201P -20	7	798	6803
	s100	FG072201P -100	10	131	
	s200	FG072201P -200	17	82	

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Al Rudis

WO# 00241

Certified by

		Sample #	Au ppb	Sample Weights (g)	Total Sample Weight
	s20	FG072301P -20	8	750	5480
	s100	FG072301P -100	16	198	
	s200	FG072301P -200	12	58	
D1	s200	FM080606S	11		
D2	s200	FM080903SS	10		
D3	s20	FM081003S -20	11	1374	6470
	s100	FG081003S -100	7	83	
	s200	FG081003S -200	7	66	
A23	r	FM081101RA	9		
A24	r	FM081101RB	9		
A20	r	FM080801R	7		
D25	r	FM080306R	6		
A8	r	FM080518R	6		
A16	r	FM080701P2	10		
A17	r	FM080702P2	11		
A18	r	FM080701P4ROCK	9		
A19	s200	FM080701P4SOIL	6		
A21	r	FM081001R	9		
D26	r	FM080501R	11		
D27	r	FM080502R	9		
A9	r	FM080601P1	9		
D23	r	FM080302R	6		
A13	s200	FM080609SS	14		
A14	s200	FM080610S	20		
A25	r	FM081102R	12		
C5	s20	FM080405SS -20		944	6876
C5	s100	FM080405SS -100		144	
C5	s200	FM080405SS -200		127	

50 MILE CREEK
UNASSAYED SAMPLES
SHEET (E)

1	FM070901P	26	FM080604S
2	FM070906S	27	FM080605S
3	FM071802P	28	FM080607S
4	FM071803P	29	FM080517R
5	FM071804P	30	FM80703P2
6	FM072001R	31	FM080502R
7	FM072202B	32	FM080503M
8	FM072502B	33	FM080504SS
9	FM072603B	34	FM80801P3
10	FM072603S	35	FM80703P2
11	FM072801A	36	FM080807S
12	FM073005P	37	FM080802P
13	FM073006P	38	FM080802P
14	FM073007P	39	FM080901P
15	FM073008P	40	FM080803P
16	FM073004S	41	FM080902P
17	FM073102SS	42	FM080804P
18	FM080201S	43	FM080901P
19	FM080304P	44	FM081001P
20	FM080402S	45	FM081104P
21	FM080701S	46	FM081105P
22	FM080403S	47	FM081103P
23	FM080404S	48	FM080401S
24	FM080304P	49	FM081102R
25	FM080602P1	50	FM081106R

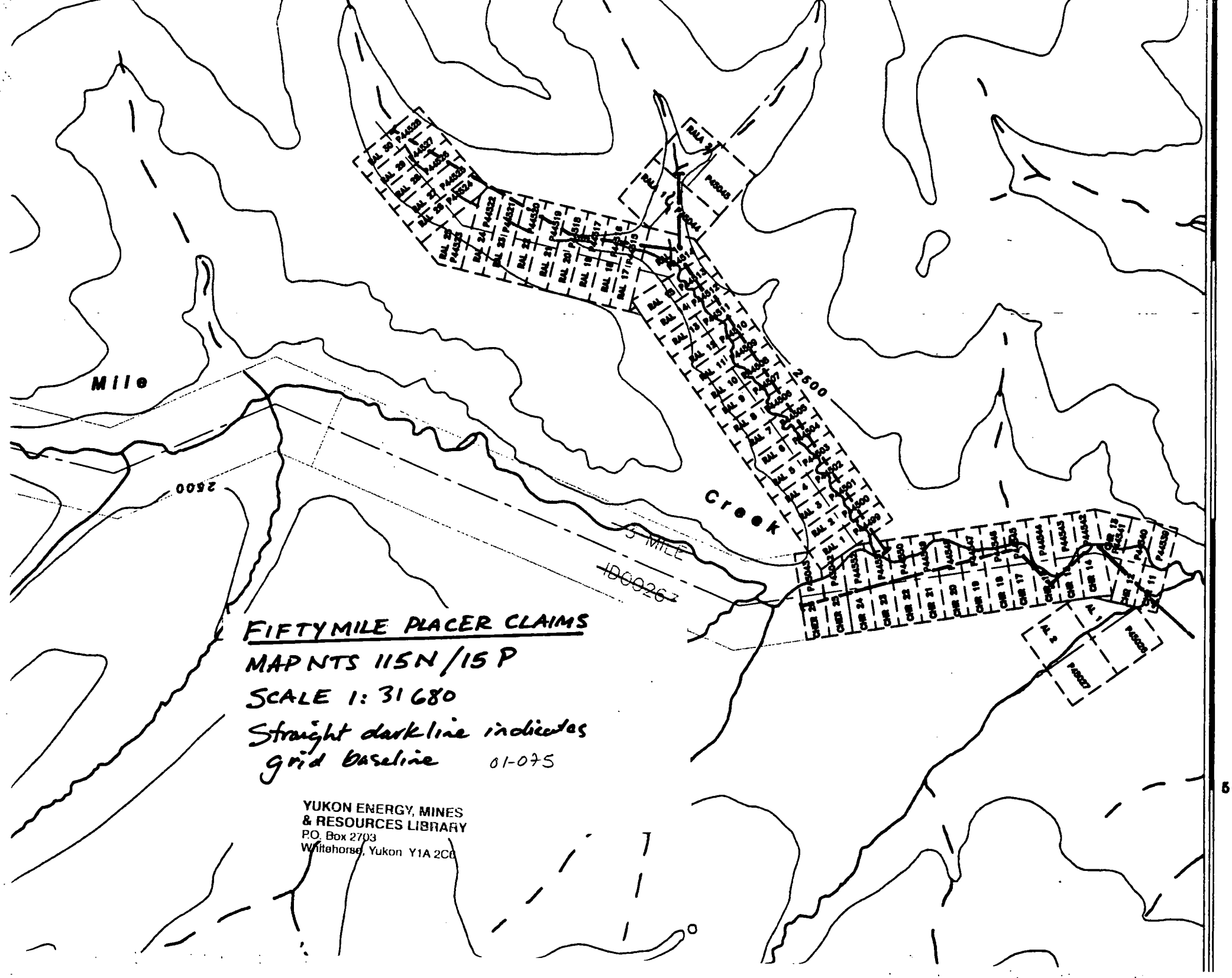
FIFTYMILE PLACER CLAIMS

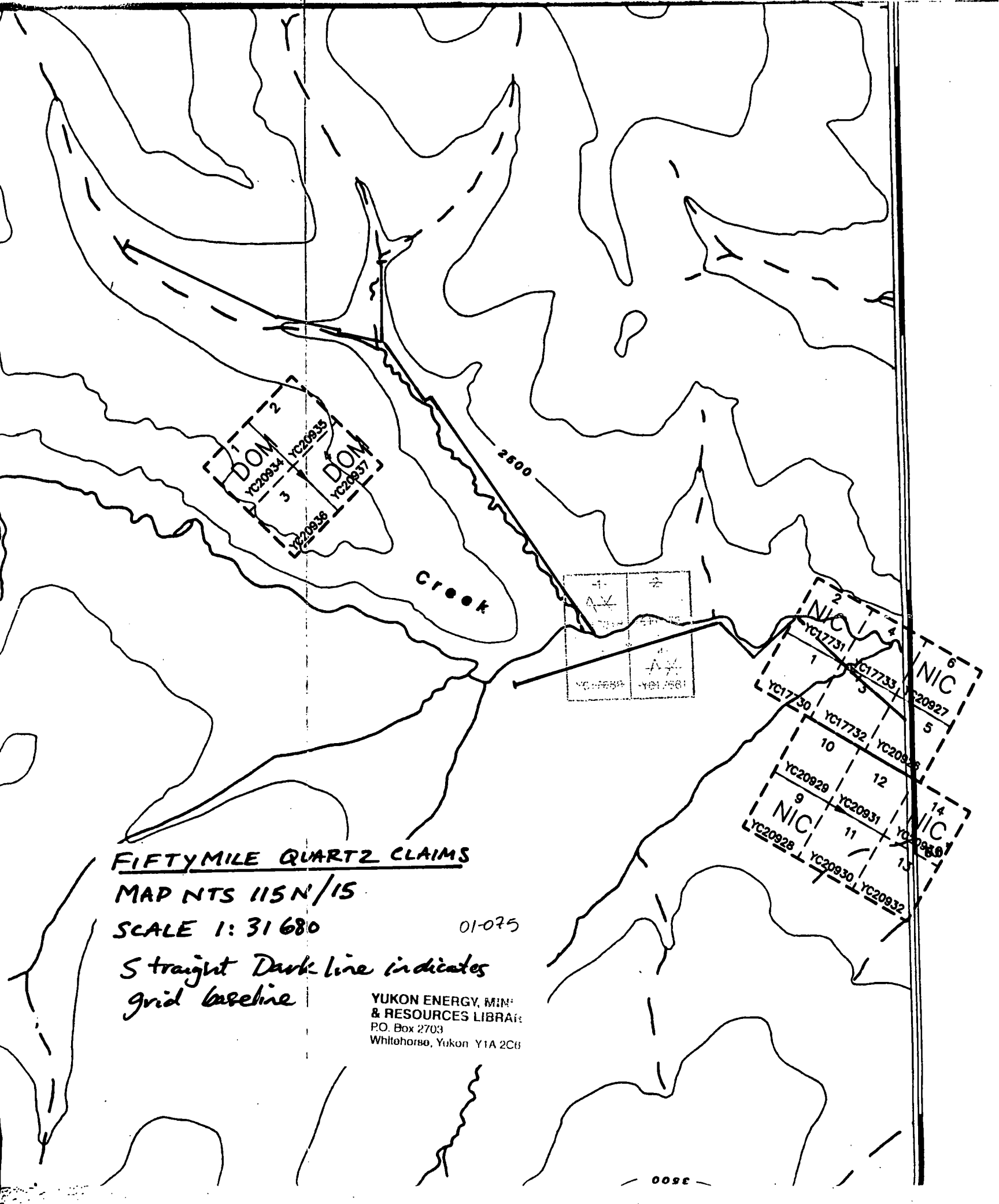
MAP NTS 115 N/16 P

01-075

Scale 1:31 680

Straight dark line indicates grid baseline





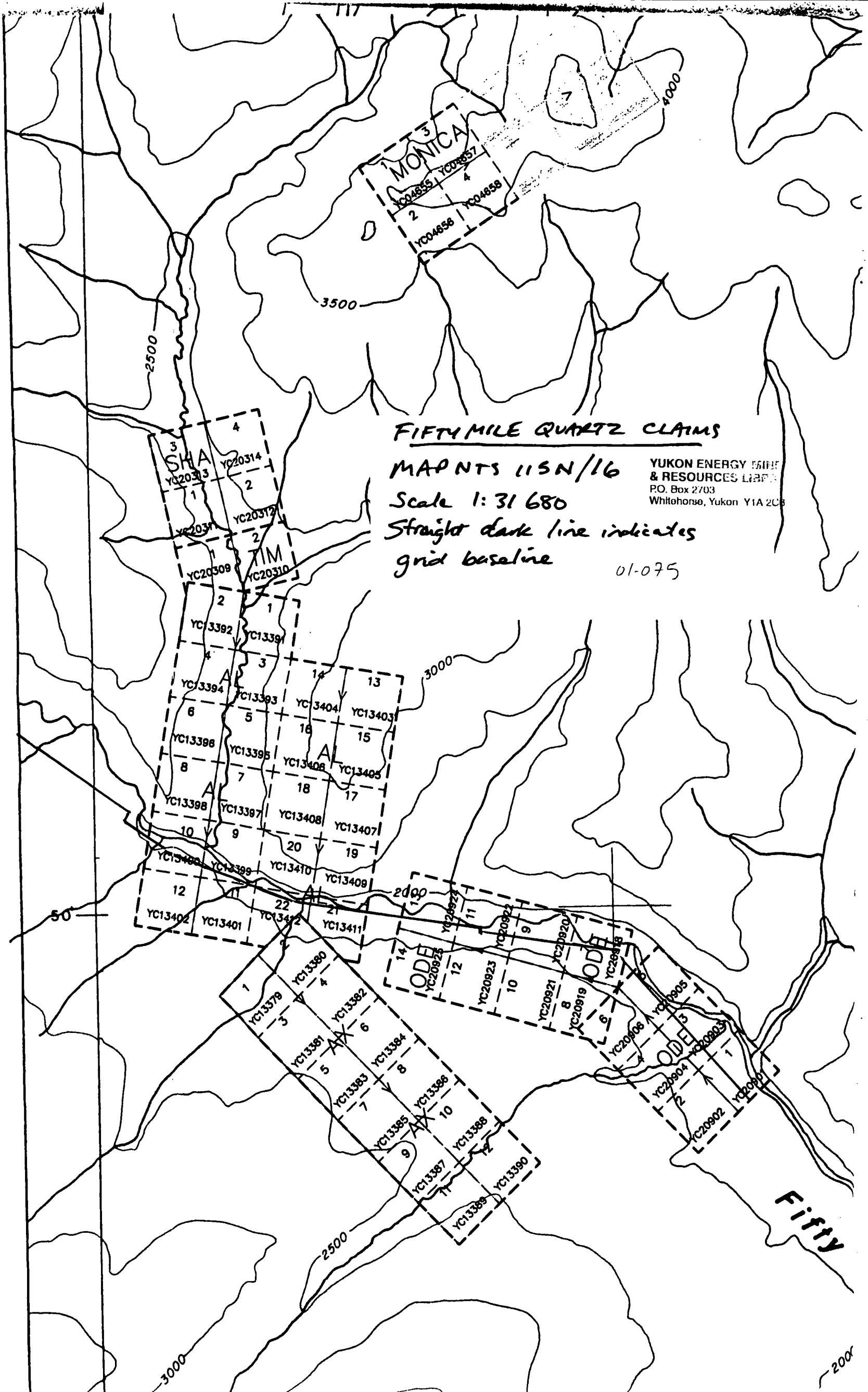
FIFTYMILE QUARTZ CLAIMS

MAP NTS 115N/15

SCALE 1:31 680

01-075

Straight Dark line indicates grid baseline



FIFTY MILE QUARTZ CLAIMS

MAP NTS 115N/16

Scale 1:31 680

Straight dark line indicates grid baseline

01-075

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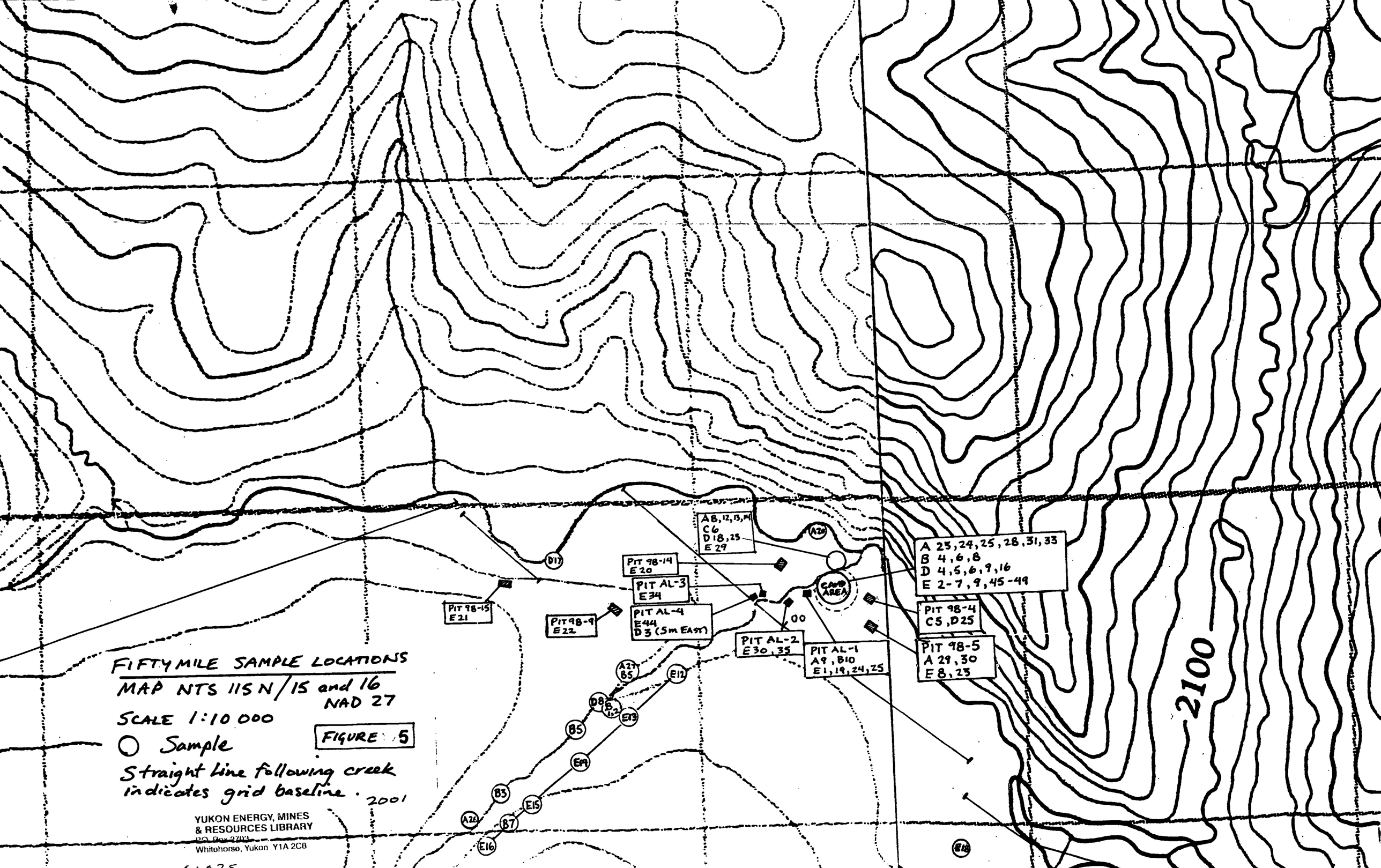
P.O. Box 2703
Whitehorse, Yukon Y1A 2C6



81
80
79
50'
78
77
76

2900
3000
2500
3100
2100
2000
2400
3000
2900
250

81
80
79
78
77
76

E11
E18
D7
D27
D14
A32
D13
12
D
16
15
D24
23
E5
D2
E10

FIFTY

WHITE

FIFTY MILE SAMPLE LOCATIONS

MAP NTS 115 N/16 NAD 27

SCALE 1:25000

FIGURE 5

○ Sample

Straight line following creek indicates grid baseline.

01-075

2001

Joins 115 N/16

3400

2500

2700

2300

19 20 21 22 23 24

C6 D28 E31, 32, 33

D27

C7 D24

A1 C9, 12

A2 C10

A3

C4

D26

C1 C13

E17

A4

C2

C3

C8 C15

A10

A7

C17

A6

A11

A5

PIT 100-6 E 27, 28, 36-43

D1

CH E26

D17

CAMP

A15

PIT 98-15 E 21

FIFTY MILE SAMPLE LOCATIONS

MAP NTS 115N/15 NAD 27

SCALE 1:25 000

FIGURE 5

○ Sample

Straight Line following creek indicates grid baseline

01-075

2001

50'

T.N.

0°13' or 4 Mils

31°02' or 552 Mils

Grid North

Magnetic North

Use diagram only to obtain numerical values.
APPROXIMATE MEAN DECLINATION 1968
FOR CENTRE OF MAP
Annual change decreasing 3.5'

ONE THOUSAND METRE
UNIVERSAL TRANSVERSE MERCATOR GRID
ZONE 7

GRID ZONE DESIGNATION	100,000 M. SQUARE IDENTIFICATION
7V	EA

5

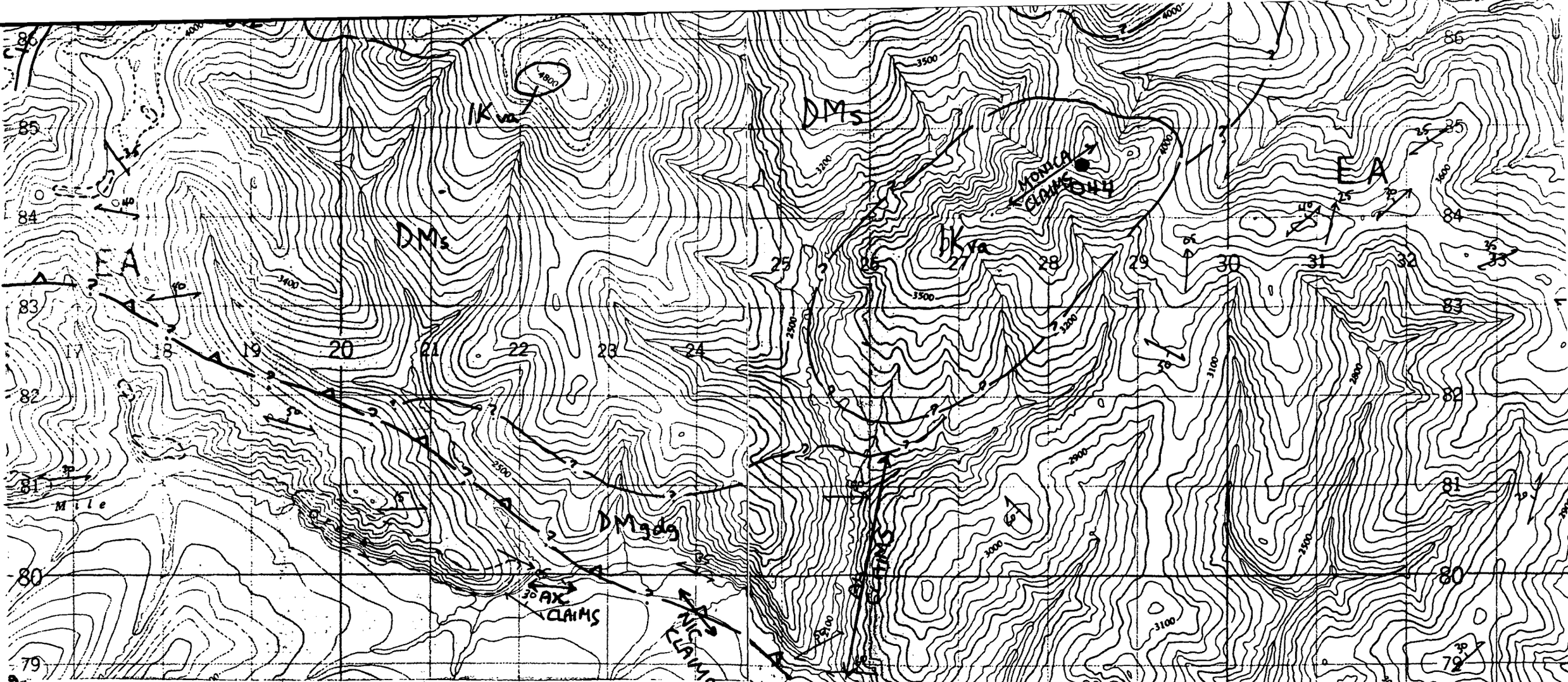
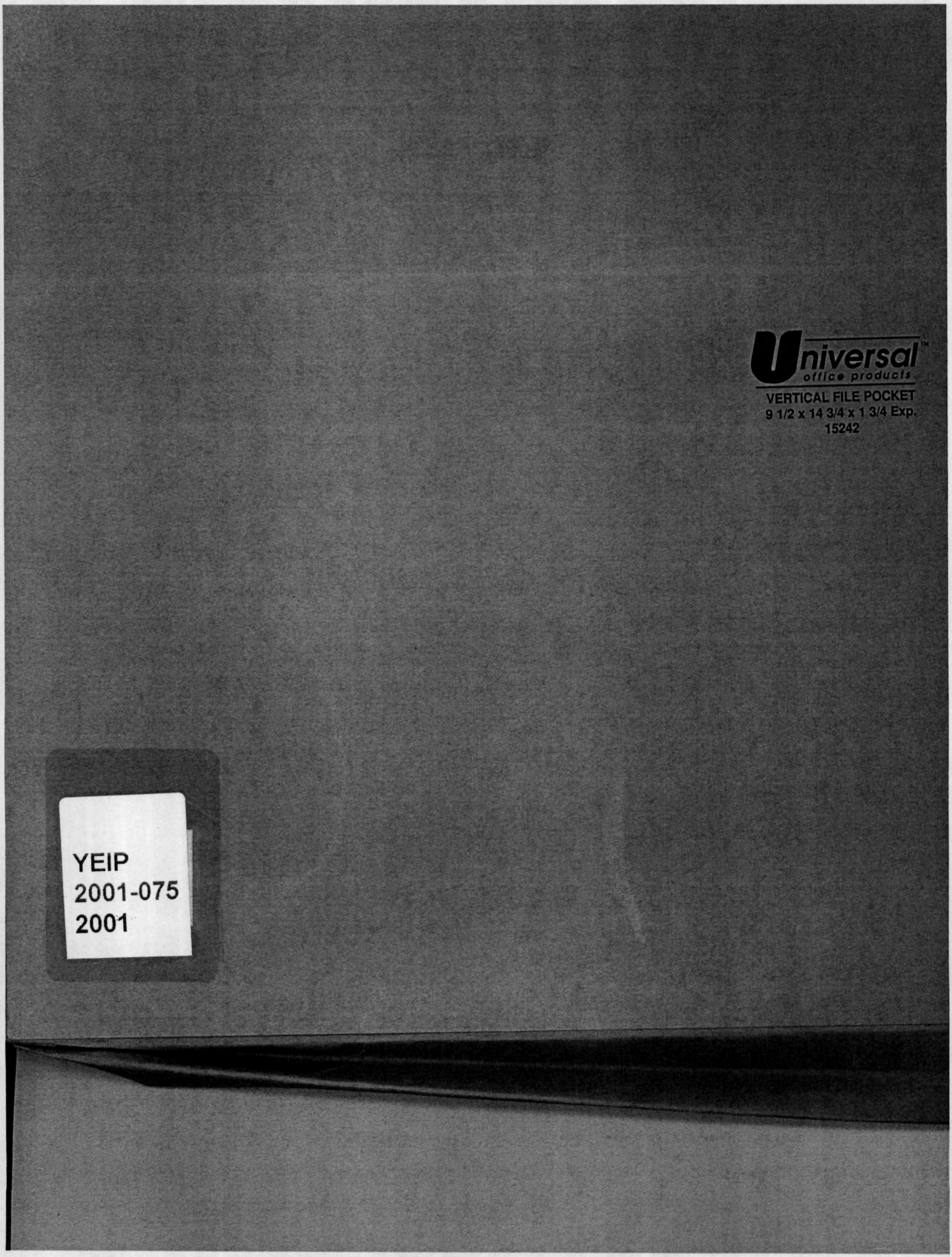
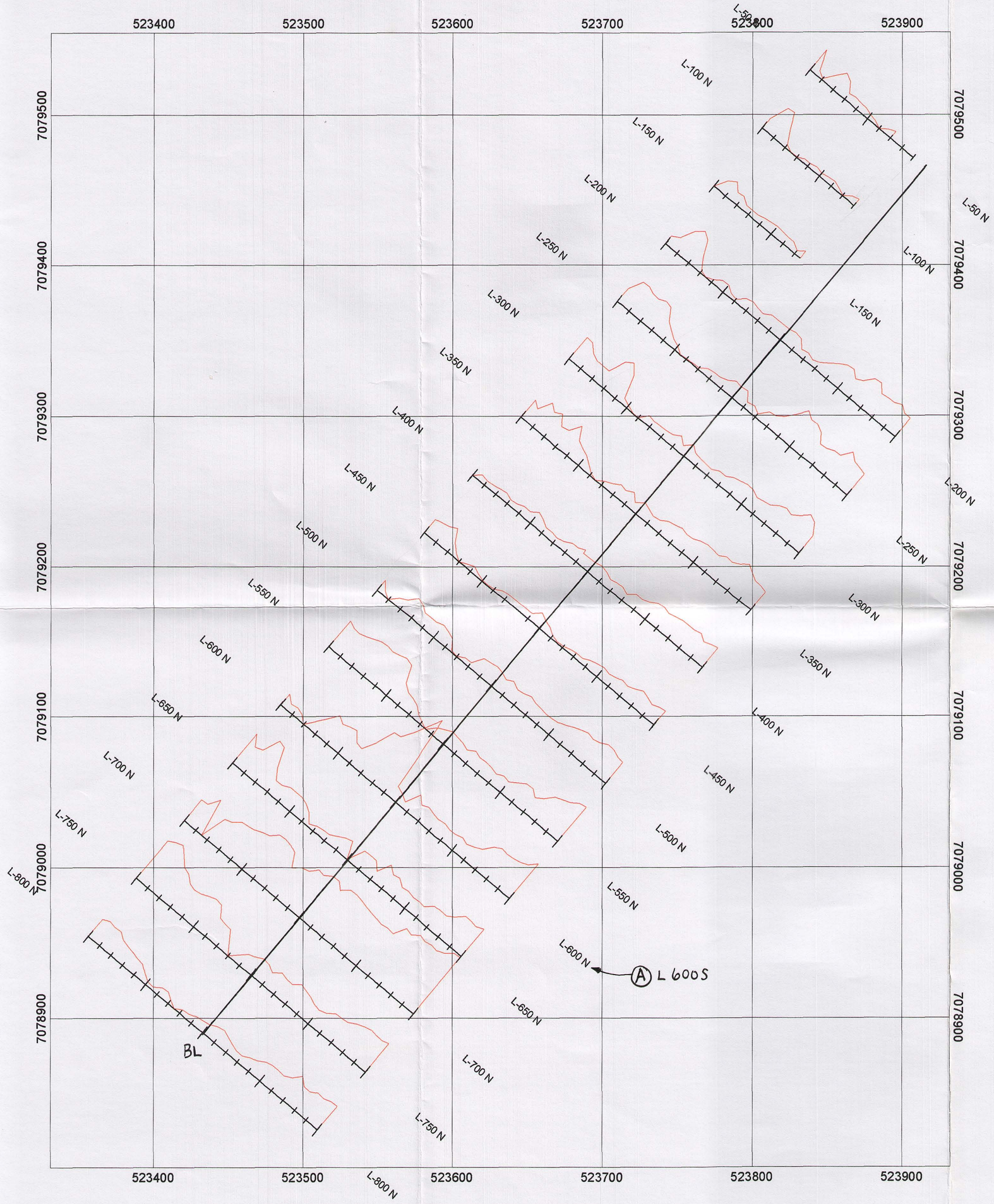


FIGURE 3

From Geologic Maps NTS 115N/15 & NTS 115/16
DIAND Yukon Open File 1996-1(G)"
Scale: 1:50,000

- 1Kva: andesite flows and breccias. (late Cretaceous)
- DMS: medium to coarse grained mica schist. Commonly garnetiferous amphibolite, minor quartzite. (late Devonian)
- 1Kgdr: massive hornblende-biotite granodiorite. (late Cretaceous)
- DMgg: moderately to strongly foliated K-feldspar augen-bearing quartz monzonitic to granitic gneiss (S. Fiftymile Batholith - early Mississippian)
- DMc: marble. (late Devonian to early Mississippian)
- Dmgdg: massive to strongly foliated dioritic to granodioritic gneiss (N. Fiftymile Batholith -





Scale 1:2500

25 0 25 50 75 100 125 150 175

metres

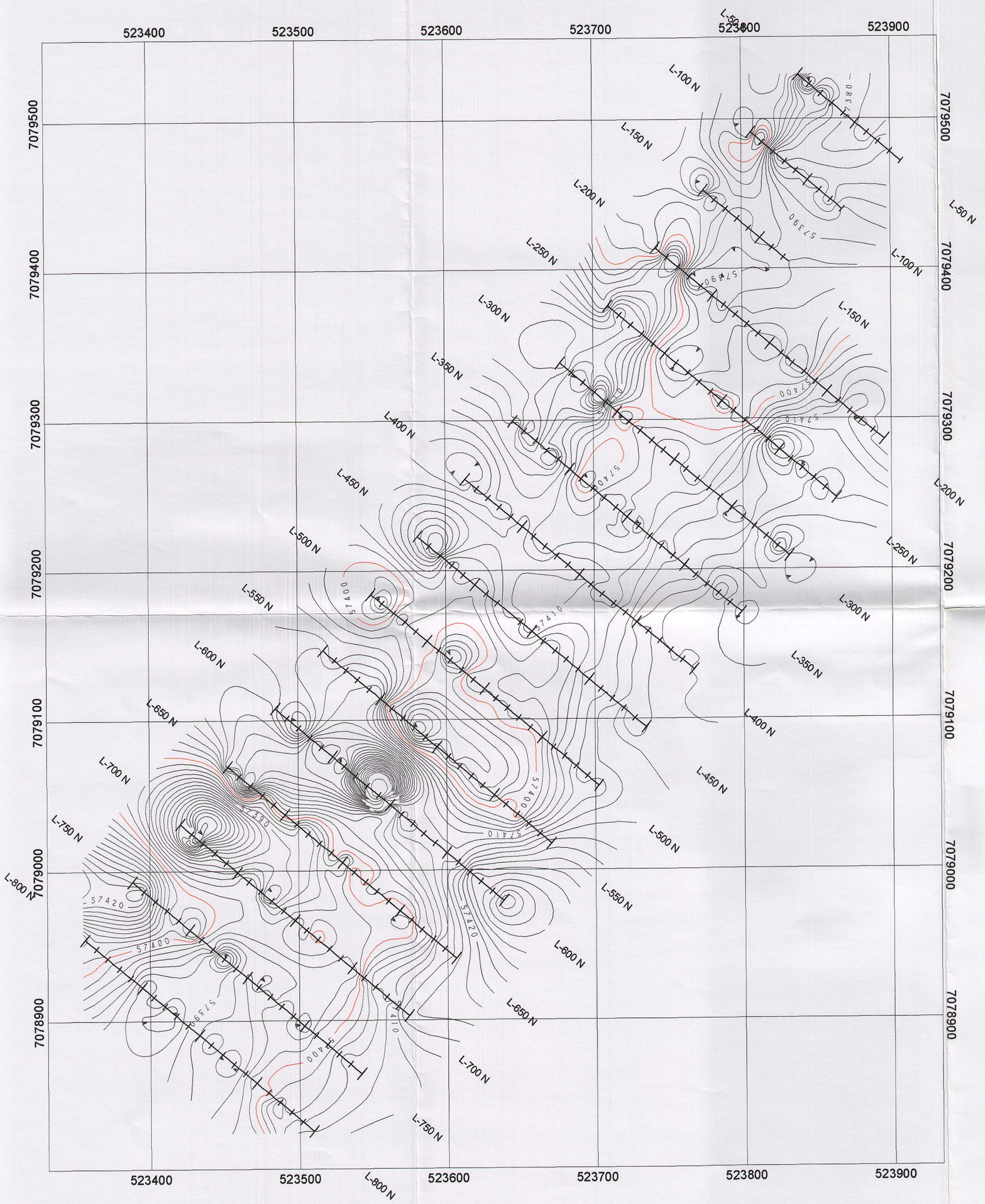
AL RUDIS

AL CREEK PROPERTY
TOTAL MAGNETIC FIELD SURVEY
STACKED PROFILE: 3 nT/mm

Dawson Mining District. NTS: 115 N/15
Datum: NAD 27
January 23, 2001. Job: AR-02-01-YT

AURORA GEOSCIENCES LTD.

01-075



Scale 1:2500

25 0 25 50 75 100 125 150 175

metres

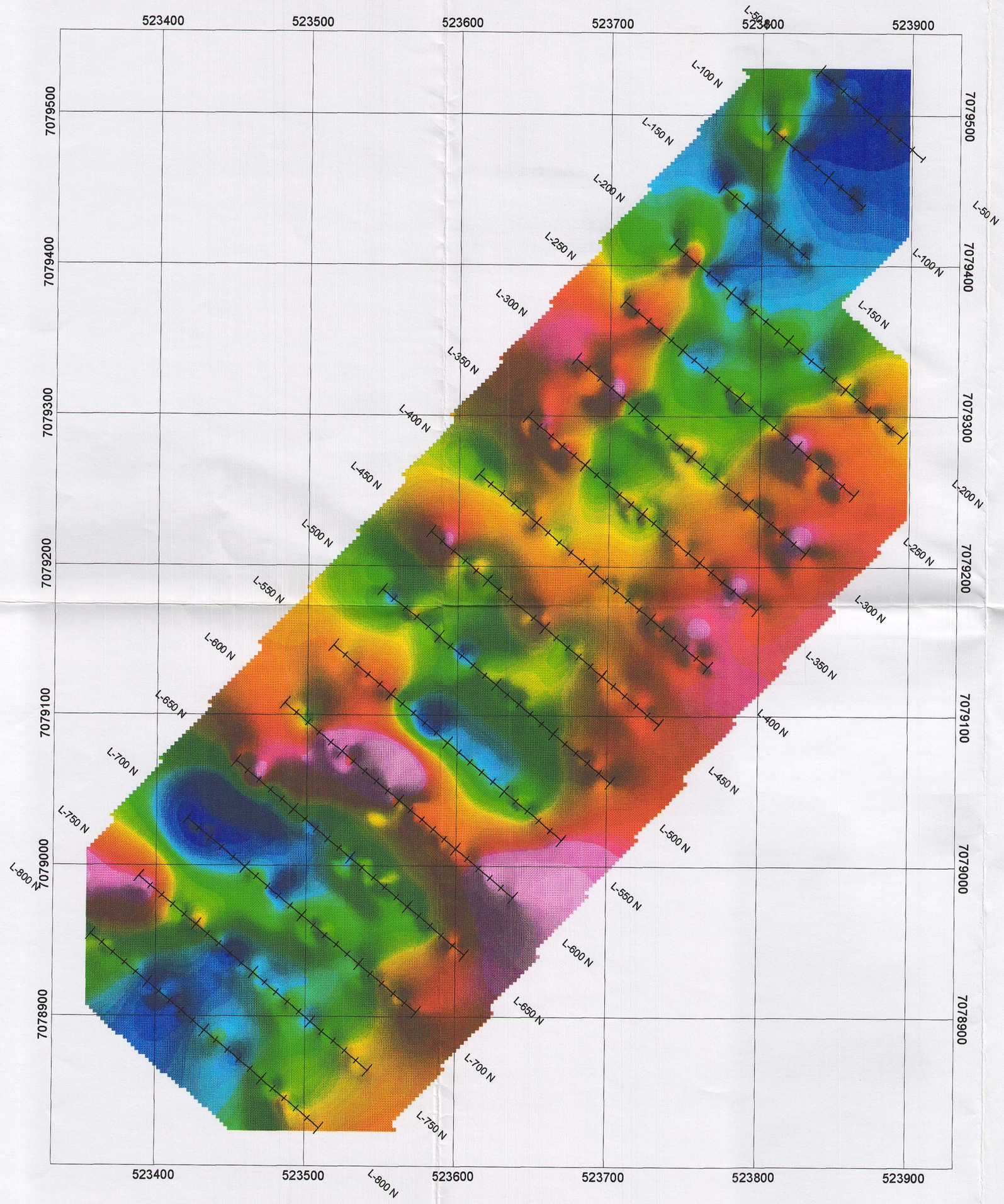
AL RUDIS

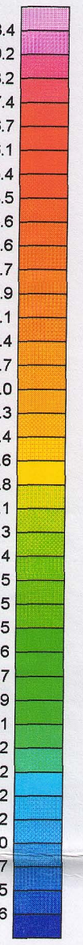
AL CREEK PROPERTY
TOTAL MAGNETIC FIELD SURVEY - CONTOURS
Contour Interval: 2 nT

Dawson Mining District, 115 N/15
Datum: NAD 27
January 23, 2001. Job: AR-02-01-YT

AURORA GEOSCIENCES LTD.

01-075





Total Magnetic Field (nT)
Grid Cell Size: 2.5m

Scale 1:2500

25 0 25 50 75 100 125 150 175
metres

AL RUDIS

AL CREEK PROPERTY
TOTAL MAGNETIC FIELD SURVEY

Dawson Mining District. NTS: 115 N/15
Datum: NAD 27
January 23, 2001. Job: AR-02-01-YT

AURORA GEOSCIENCES LTD.

519000E
520000E
521000E
522000E
7082000N
7081000N
7080000N

BL

A L 1360E

E L 600E

D CREEK FORK L 3080N

BL

Change in Profile Orientation

B L 2360N

Pup

C L 1560N

DOM 1-2
POST 1

DOM 3-4
POST 1

Pit 100-5
Pit 100-4
Pit 100-6
Pit 100-3
Pit 100-2
Pit 100-1

8L

Scale 1:5000

100 0 100 200 300
metres

AL RUDIS

RALPH CREEK PROPERTY
TOTAL MAGNETIC FIELD SURVEY
STACKED PROFILE: 25 nT/mm

Dawson Mining District, NTS: 115 N/15
Datum: NAD 27
Date: January 23, 2002. Job: AR-02-01-YT

AURORA GEOSCIENCES LTD.

01-075

519000E
520000E
521000E
522000E
7082000N
7081000N
7080000N

Scale 1:5000

100 0 100 200 300
metres

AL RUDIS

RALPH CREEK PROPERTY
TOTAL MAGNETIC FIELD SURVEY - CONTOURS
Contour Interval: 10 nT

Dawson Mining District, NTS: 115 N/15
Datum: NAD 27
Date: January 22, 2002. Job: AR-02-01-YT

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01-075

519000E
520000E
521000E
522000E
7082000N
7081000N
7080000N

57602.1
57452.3
57425.1
57417.9
57411.9
57408.1
57404.7
57401.8
57399.4
57397.4
57395.3
57393.4
57391.4
57389.3
57387.7
57386.2
57384.6
57382.9
57381.1
57379.2
57377.4
57375.5
57373.2
57370.8
57368.4
57366.1
57363.4
57360.1
57356.8
57351.6
57342.3
57329.2
57313.4
57301.2
57287.7
57255.8
57202.0
57101.7

Total Magnetic Field (nT)
Grid Cell Size: 2.5m

N

Scale 1:5000

100 0 100 200 300
metres

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AL RUDIS

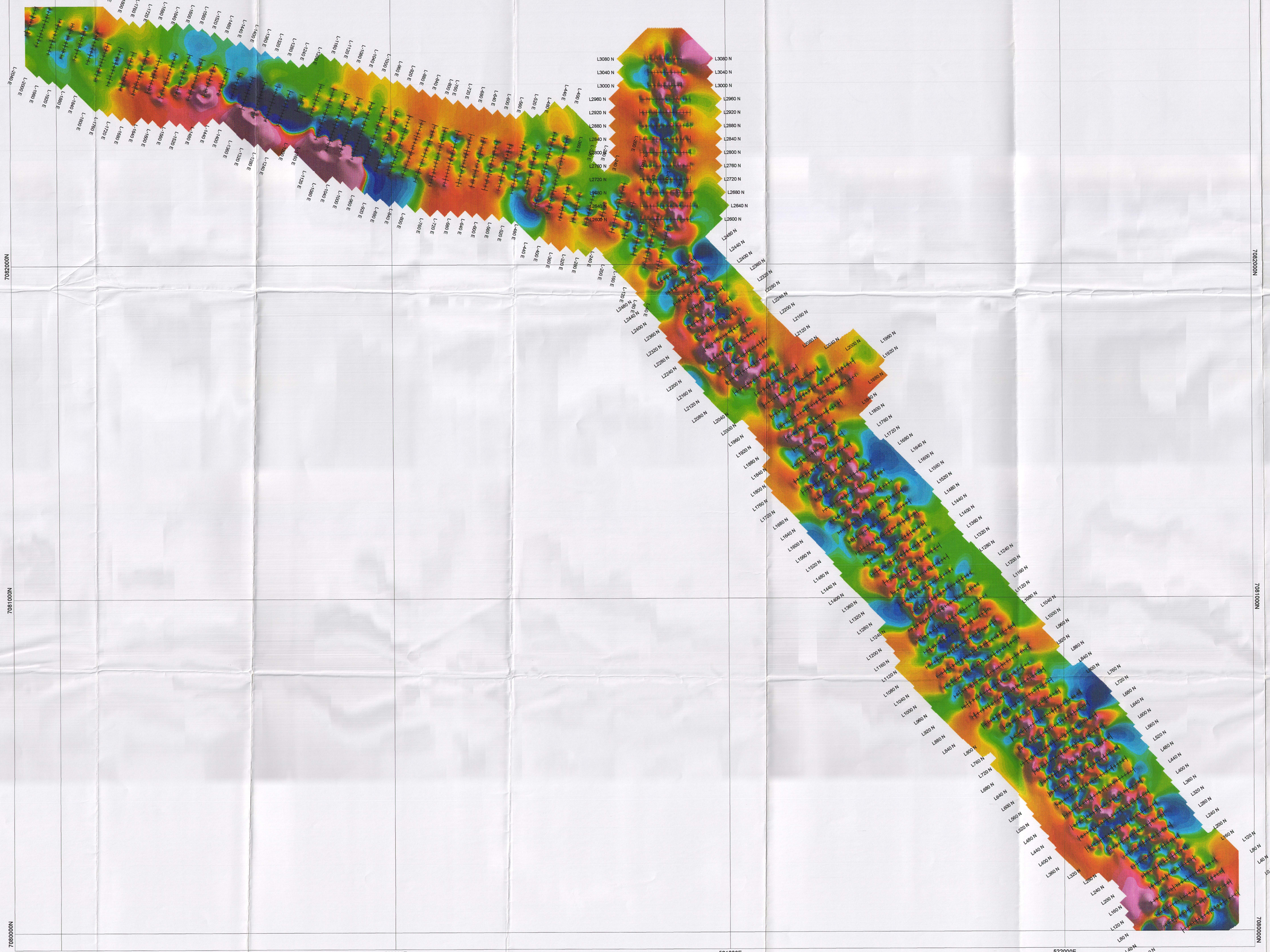
RALPH CREEK PROPERTY
TOTAL MAGNETIC FIELD SURVEY

Dawson Mining District, NTS: 115 N/15
Datum: NAD 27
Date: January 22, 2002. Job: AR-02-01-YT

AURORA GEOSCIENCES LTD.

01-075

519000E
520000E
521000E
522000E
7082000N
7081000N
7080000N



9.1
5.4
3.9
3.1
2.6
2.1
1.8
1.5
1.3
1.1
0.9
0.8
0.6
0.5
0.4
0.2
0.1
0.0
-0.1
-0.2
-0.3
-0.4
-0.5
-0.6
-0.7
-0.8
-1.0
-1.1
-1.2
-1.4
-1.6
-1.8
-2.0
-2.3
-2.8
-3.5
-4.4
-6.4

Vertical Gradient (nT)
Grid Cell Size: 2.5m

Scale 1:5000
100 0 100 200 300
metres

AL RUDIS

RALPH CREEK PROPERTY
TOTAL MAGNETIC FIELD SURVEY
VERTICAL GRADIENT

Dawson Mining District, NTS: 115 N/15
Datum: NAD 27
Date: January 22, 2002. Job: AR-02-01-YT

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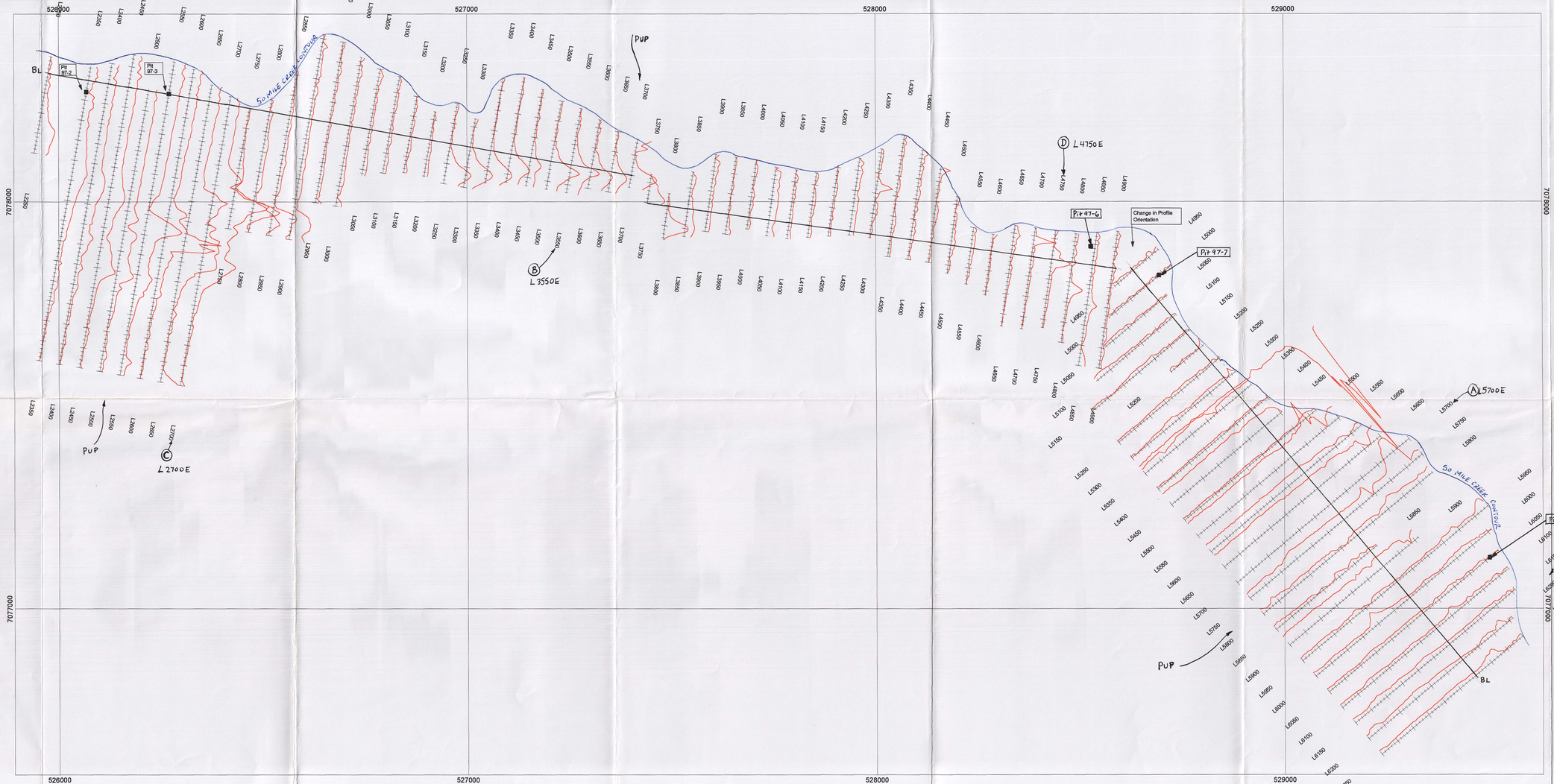


Scale 1:5000

100 0 100 200 300
metres

AL RUDIS

FIFTY MILE PROPERTY - EAST
TOTAL MAGNETIC FIELD SURVEY
STACKED PROFILE: 20 nT/mm

Dawson Mining District, NTS: 115 N/16
Datum: NAD 27
Date: January 23, 2002. Job: AR-02-01-YT

AURORA GEOSCIENCES LTD.

01-075

Scale 1:5000

100 0 100 200 300

metres

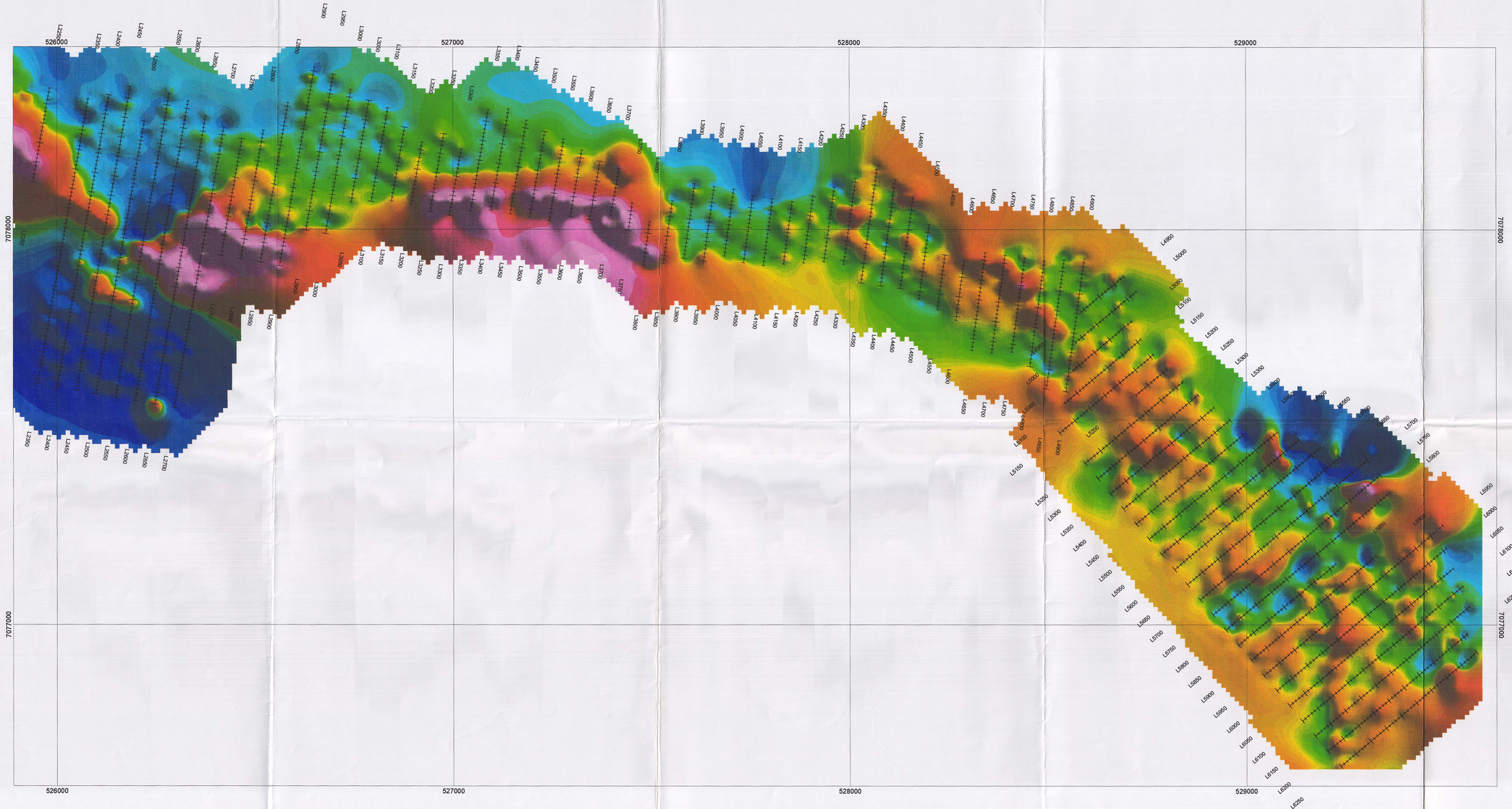
AL RUDIS

FIFTY MILE PROPERTY - EAST
TOTAL MAGNETIC FIELD SURVEY - CONTOURS
Contour Interval: 5 nT

Dawson Mining District, NTS: 115 N/16
Datum: NAD 27
Date: January 23, 2002. Job: AR-02-01-YT

AURORA GEOSCIENCES LTD.

01-075



Total Magnetic Field (nT)
Grid Cell Size: 2.5m

Scale 1:5000

100 0 100 200 300
metres

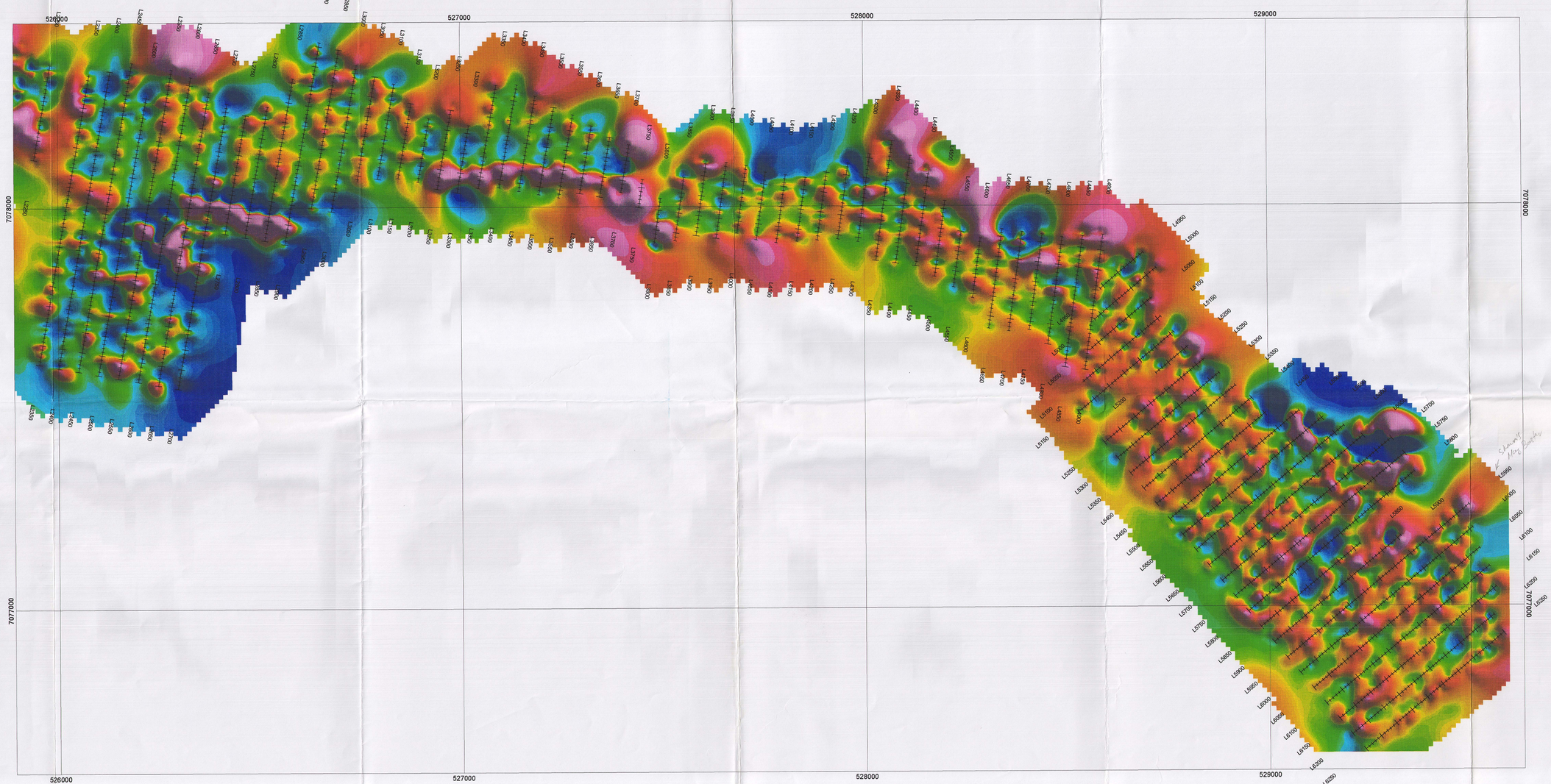
AL RUDIS

FIFTY MILE PROPERTY - EAST
TOTAL MAGNETIC FIELD SURVEY

Dawson Mining District, NTS: 115 N/16
Datum: NAD 27
Date: January 23, 2002. Job: AR-02-01-YT

AURORA GEOSCIENCES LTD.

01-095



4.6
3.4
2.8
2.4
2.1
1.9
1.7
1.5
1.4
1.3
1.2
1.1
1.0
0.9
0.8
0.8
0.7
0.6
0.5
0.4
0.4
0.3
0.2
0.1
0.0
-0.1
-0.2
-0.3
-0.4
-0.5
-0.7
-0.9
-1.1
-1.3
-1.5
-1.8
-2.3
-3.3

Vertical Gradient (nT)
Grid Cell Size: 2.5m

Scale 1:5000

100 0 100 200 300
metres

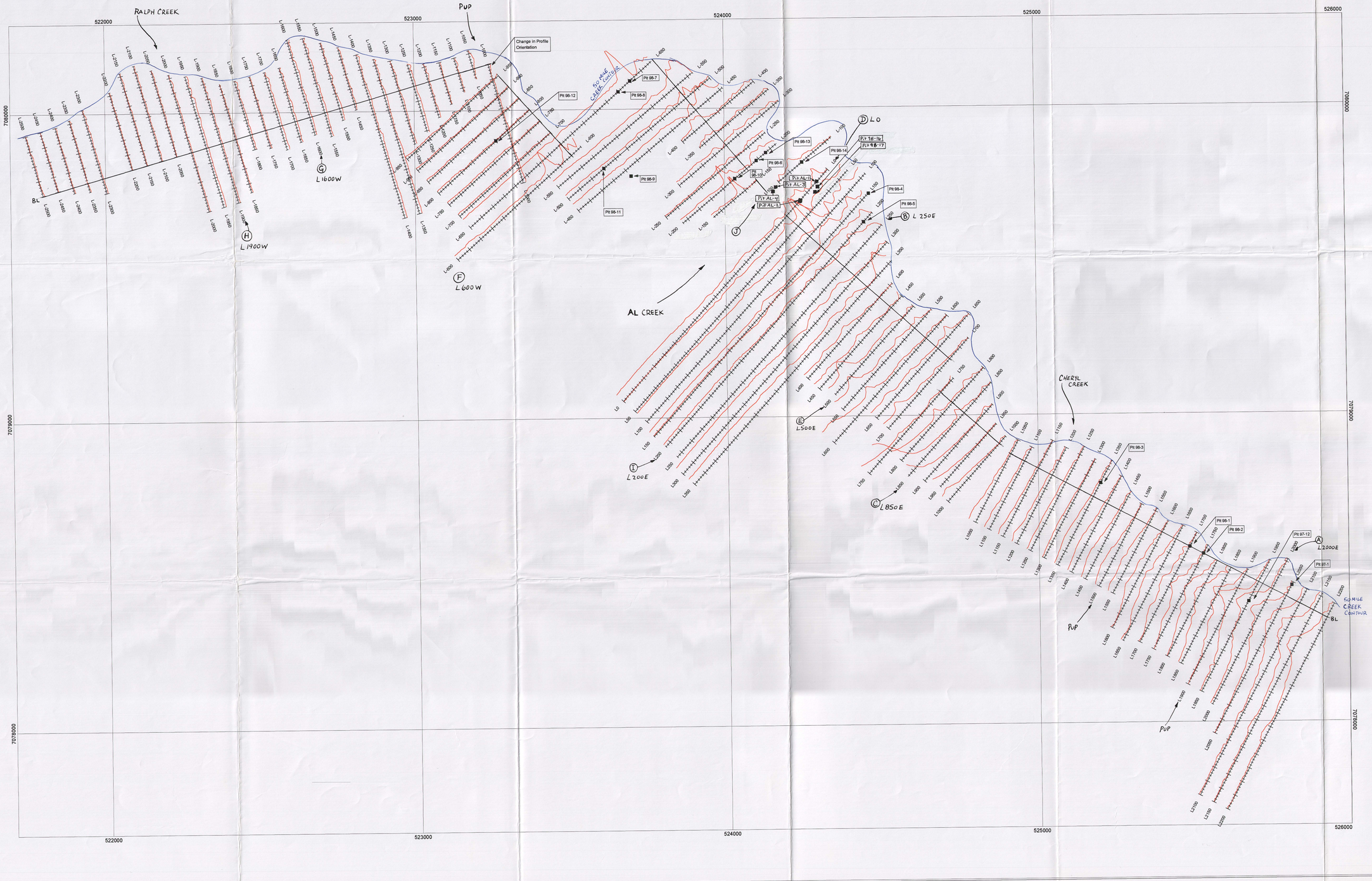
AL RUDIS

FIFTY MILE PROPERTY - EAST
TOTAL MAGNETIC FIELD SURVEY
VERTICAL GRADIENT

Dawson Mining District, NTS: 115 N/16
Datum: NAD 27
Date: January 23, 2002. Job: AR-02-01-YT

AURORA GEOSCIENCES LTD.

01-015



AL RUDIS

FIFTY MILE PROPERTY - WEST
TOTAL MAGNETIC FIELD SURVEY
STACKED PROFILE: 20 nT/mm

Dawson Mining District, NTS: 115 N/15, 16
Datum: NAD 27
Date: January 23, 2002. Job: AR-02-01-YT

AURORA GEOSCIENCES LTD.

01-095

522000
523000
524000
525000
526000
7080000
7079000
7078000

Scale 1:5000

100 0 100 200 300

metres

AL RUDIS

FIFTY MILE PROPERTY - WEST
TOTAL MAGNETIC FIELD SURVEY - CONTOURS
CONTOUR INTERVAL: 5 nT

Dawson Mining District, NTS: 115 N/15, 16
Datum: NAD 27
Date: January 23, 2002 Job: AR-02-01-YT

AURORA GEOSCIENCES LTD.

522000
523000
524000
525000
526000
7080000
7079000
7078000

57515.5
57482.2
57464.3
57453.8
57442.2
57429.9
57418.5
57409.8
57402.5
57397.8
57394.3
57391.3
57388.6
57386.3
57384.3
57382.8
57381.5
57380.2
57378.9
57377.7
57376.5
57375.6
57374.7
57373.7
57372.7
57371.6
57370.4
57368.8
57367.0
57365.2
57363.0
57360.5
57357.6
57353.8
57349.2
57344.3
57333.5
57313.2

Total Magnetic Field (nT)
Grid Cell Size: 2.5m

inches
0 1 2
0 1 2 3 4 5
centimetres

This reference scale bar has been added to the original image and will change if the map is resized as the image, therefore it may not be an accurate scale for the original size.

YUKON GEOLOGICAL SURVEY

Scale 1:5000

100 0 100 200 300
metres

AL RUDIS

FIFTY MILE PROPERTY - WEST
TOTAL MAGNETIC FIELD SURVEY

Dawson Mining District, NTS: 115 N/15, 16
Datum: NAD 27
Date: January 23, 2002. Job: AR-02-01-YT

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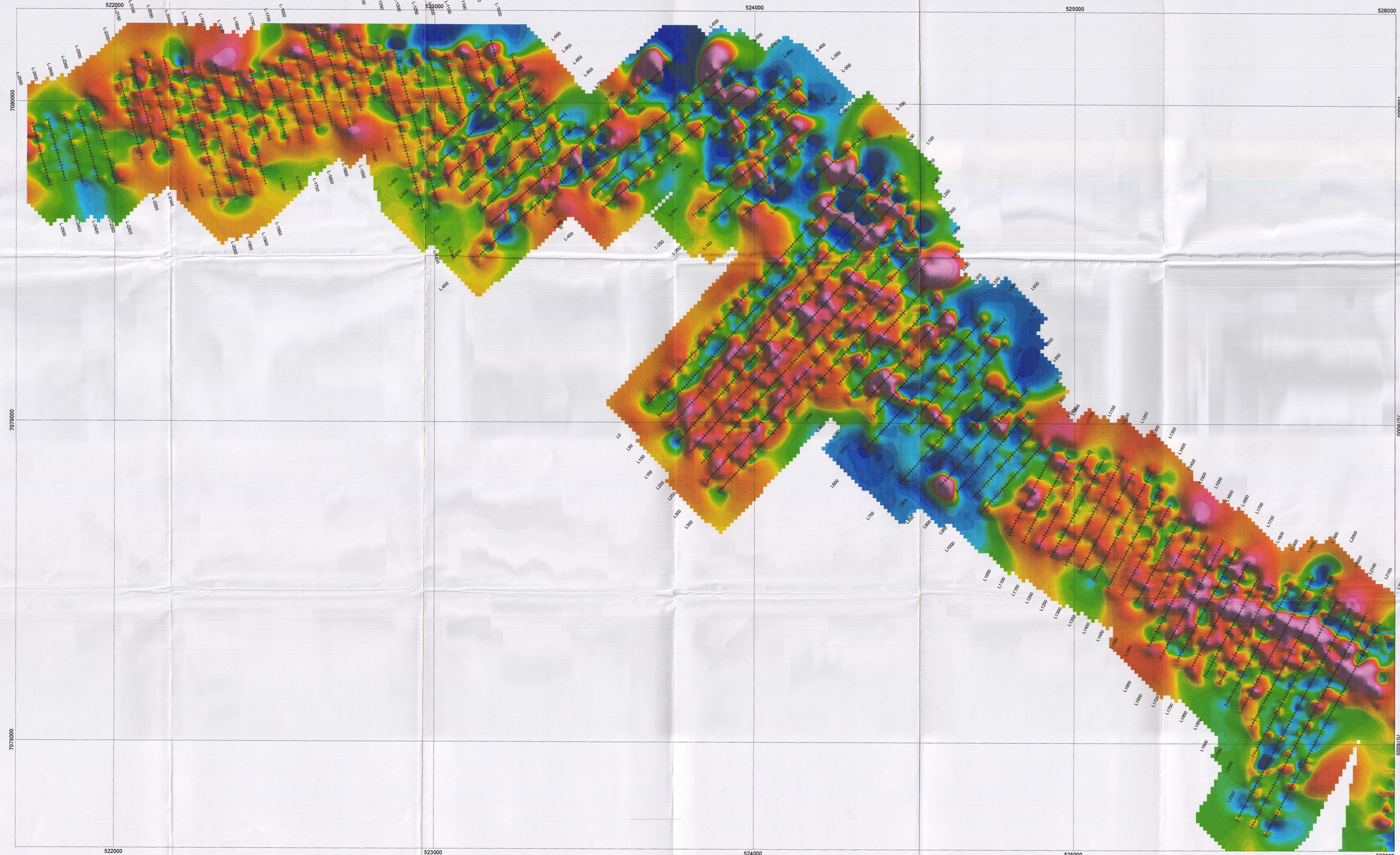
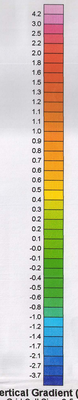
01-093





Vertical Gradient (nT)
Grid Cell Size: 2.5m

N

Scale 1:5000

100 0 100 200 300
metres

AL RUDIS

FIFTY MILE PROPERTY - WEST
TOTAL MAGNETIC FIELD SURVEY
VERTICAL GRADIENT

Dawson Mining District, NTS: 115 N/15, 16
Datum: NAD 27
Date: January 23, 2002. Job: AR-02-01-YT

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