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# Summary of Work <br> Eureka Dome Area Yukon Territory, N.T.S. 1150 7/10 <br> for <br> Yukon Mining Incentives Program <br> Economic Development <br> Government of the Yukon <br> Box 2703, Whitehorse, Yukon Y1A 2C6 <br> File Number 00-061 

John Peter Ross, Prospector
November 2000


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## Chapter One: INTRODUCTION

### 1.1 Introductory Statement

The Eureka Dome area map sheet $11507 / 10$, was chosen because,
1 There is road access to part of the project area The rest of the project area is accessed by helicopter.
2. Eureka and Black Hills Creek have a recorded gold production of more than 140,000 ounces

3 Eureka Creek has $\mathrm{Au}, \mathrm{As}, \mathrm{Sb}$ and Hg GSC silt anomalies Eureka Dome has 3 drainages. Eureka Creek has produced placer gold and has silt anomalies Child's Gulch has produced placer gold and has $\mathrm{As}, \mathrm{Hg}(\mathrm{Sb})$ silt anomalies An unnamed tributary from the west (Wounded Moose Creek) has $\mathrm{Sb}, \mathrm{Hg}$ silt anomalies and has had placer claims and testing in the past and just now has a new placer lease ( $3+1$ mile), 1 placer claim, and 2 placer discovery claims Steele Creek is west of Eureka Creek and has placer gold and an $\mathrm{Sb}, \mathrm{Hg}$ silt anomaly
4. The area is active now. Expatriate Resources and Nordac J V own 184 Armenius claims in the immediate footwall of a regional scale thrust fault. Three gold showings have been found by placer miners In the same area limonite breccias have been found $-0.85 \mathrm{~g} \mathrm{Au} / \mathrm{T}, 150 \mathrm{~g} \mathrm{Au} / \mathrm{T}$ One rusty rock (Bill Weng) ran $7538 \mathrm{~g} \mathrm{Au} / \mathrm{T}$. Placer gold increases in coarseness and roughness as one goes up Eureka Creek. There are many old underground workings present

5 In 1993, Gilmex Ent. Found a float rock at Child's Gulch that ran $0.414 \mathrm{oz} \mathrm{Au} / \mathrm{T}$ Eureka Creek left fork silt samples were anomalous - up to 2,170 ppb Au

6 From claim maps, aerial photos and reports it appears that little or no work has been done east of the Eureka dome (divide or height of land) Perhaps because of access problems there has been little or no placer gold production
7 Some creek drainages may have no gold production because gradients may be too steep, gold too fine to recover, or even too fine to see (micron sized) !"
8. The unstaked area east of the Eureka claims has $\mathrm{Sb}, \mathrm{Hg}$ silt anomalies, many curious faults and linears, is close to a long regional thrust fault, and close to granodiorite rocks. Some have gold in silts. In particular an area SE of Eureka Dome has interesting linears above silt anomalies $\mathrm{Sb}, \mathrm{Hg}, \mathrm{Au}$

### 1.2 Location and Access

Access was by truck about 36-42 miles ( $58-67 \mathrm{~km}$ ) south-east of Dawson City on a rough mining road The mining road is 2 -wheel drive Two areas were accessed by truck and on foot. A $3^{\text {rd }}$ area - about 38 miles ( 61 km ) south required a helicopter for access
1.




## GEOLOGICAL LEGEND

## Carboniferous and Permian

4 Schist, gneiss, includes Big Salmon Metamorphic Complex
5 Schist, quartz muscovite schist
Paleozoic
7 Granodiorite Pelly gneiss, foliated and gneissic
GSC Silt Sample
Au ppb As ppm Sb ppm Hg ppm

| 3151 | 12.5 | 3 | 0.5 | 85 |
| :--- | :--- | :--- | :--- | :--- |

## 6

1.9

85

A A A?
thrust fault and dip (defined, approximate,assumed)
___ faults (brown) - high priority target faults (orange)


Magnetic anomaly

| J.P. ROSS |  |  |
| :--- | :--- | :--- |
| SCALE | FILE EUREKA | DATE OO 1206 |
| NTS. $115007 / 10$ | DRAWN. OD 交 | FIGURE 3A |






## Chapter Two: SUMMARY

No claims were staked
J P Ross took 47 float and 4 bedrock samples. The 47 float samples and 4 bedrock samples were tested for $\mathrm{Au}(30 \mathrm{~g})$ FAA and 30 element ICP

J P. Ross took 30 silt samples. All were tested for ( $-80+200$ mesh) 36 element ( $\mathbf{3 0 g}$ ) ICP ultratrace and Au (-200 mesh) 30g fire assay
J.P Ross took 29 pan concentrate samples. All were pulverized and tested for 36 element $(30 \mathrm{~g})$ ICP ultratrace

The float rock assay results were disappointing, the best was 35 ppb Au
Many silts (-80+200) were anomalous
$\mathrm{Au} 10-50 \mathrm{ppb}$ - anomalous, $\mathrm{Au}>50 \mathrm{ppb}$ very anomalous
$\mathrm{Sb}>1 \mathrm{ppm}$ - anomalous $\mathrm{W}>10 \mathrm{ppm}$ - anomalous. $\mathrm{Hg}>100 \mathrm{ppm}$ - anomalous.
Many (-200) silts were anomalous. $\mathrm{Au} 10-50 \mathrm{ppb}$ - anomalous, $\mathrm{Au}>50 \mathrm{ppb}$ very anomalous

Many pan concentrate samples were anomalous.
$\mathrm{Au}>10 \mathrm{ppb}$ anomalous $\mathrm{Sb}>1 \mathrm{ppm}-$ anomalous $\mathrm{W}>10 \mathrm{ppm}-$ anomalous, $\mathrm{W}>50 \mathrm{ppm}-$ very anomalous $\mathrm{Hg}>100 \mathrm{ppm}$ - anomalous, $\mathrm{Hg}>500 \mathrm{ppm}$ - very anomalous.

Anomalous drainages are arranged in groups and samples in the direction of drainage

| Group 1 | $-80+200$ | $-80+200$ | $-80+200$ | $-80+200$ | -200 | Pan con. | Pan con. | Pan con. | Pan con |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Sample | Au ppb | Sb ppm | W ppm | Hg ppm | Auppb | Auppb | Sb ppm | W ppm | Hg ppm |
| WMS 2 | 23 | 087 |  | 80 | , 14 | 213 | 140 | 06 | 21 |
| WMS 1 | 43 | 062 | 03 | 58 | $4 \times 23$ | 26\%, | 071 | 07 | 21 |
| WMS 5 | 18093.3 | 0.7 | 07 | 42 | 13338 | , 354 | 093 | 13 | 30 |


| Group 2 | -80+200 | $-80+200$ | $-80+200$ | $-80+200$ | 200 | Pan con. | Pan con | Pan con | Pan con. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Sample WMS 16 | $\begin{gathered} \hline \mathbf{A u} \text { ppb } \\ 1.6 \end{gathered}$ | $\begin{gathered} \hline \text { Sb ppm } \\ 07 \end{gathered}$ | $\begin{gathered} \hline \mathbf{W} \mathbf{p p m} \\ 1.7 \end{gathered}$ | $\begin{array}{r} \text { Hg pp } \\ \$ 297 \end{array}$ | $\frac{\mathbf{A u p p b}}{2}$ | $\begin{gathered} \hline \mathbf{A u ~ p p b} \\ 4.4 \end{gathered}$ | $\begin{gathered} \text { Sb pp } \\ 2.20 \end{gathered}$ | w ppm 162 | Hg ppm |


| Group 3 | $-80+200$ | -80+200 | $-80+200$ | -80+200 | -200 | Pan con | Pan con. | Pan con. | Pan con |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Sample | Au ppb | Sb ppm | W ppm | Hg ppm | Auppb | Auppb | Sb ppm | W ppm | Hg ppm |
| WMS 11 | 58 | 03 | 06 | 43 | 193 | 14 | 022 | 19 | 27 |
| WMS 10 | 19 | 013 | 03 | 13 | 101 | 71 | 015 | 28 | 6 |
| WMS 9 | 8.1 | 042 | 06 | 32 | + 222 | 18.4 | 031 | 3/1438 | 280m |


| Group 4 | $-80+200$ | $-80+200$ | $-80+200$ | $-80+200$ | -200 | Pan con. | Pan con. | Pan con. | Pan con. |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Sample | Au ppb | Sb ppm | W ppm | Hg ppm | Au ppb | Au ppb | Sb ppm | W ppm | Hg ppm |  |
| WMS 12 | 6.1 | 081 | 07 | 89 | H. |  |  | 4.8 | 221 | 2.3 |


| Group 5 | $-80+200$ | $-80+200$ | $-80+200$ | $-80+200$ | -200 | Pan con | Pan con | Pancon | Pan con. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Sample | Auppb | Sb ppm | W ppm | Hg ppm | Auppb | Au ppb | Sbpm | WRe | Hg $\mathrm{ppm}^{\text {m }}$ |
| WMS 28 | 6.7 | 0.62 | 18 | 71 | $46 \times$ | 04 | 1, ${ }^{6} 6$ | 3 | 1 |
| WMS 27 | \% 103 | 0.58 | 15 | 14 | 860 3 | 2.2 | \%) | 17 | 1 |
| WMS 26 |  | 056 | 1.4 | 70 | 6 | 1.5 | - ${ }^{1}$ | , | , |
| WMS 16 | 16 | 17 | 1.7 | $\cdots 2087$ | 22 | 44 | 201 | 462 | 426. |


| Group 6 | $-80+200$ | $-80+200$ | $-80+200$ | $-80+200$ | -200 | Pan con. | Pan con. | Pan con. | Pan con. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Sample | Au ppb | Sb ppm | W ppm | Hg ppm | Au ppb | Au ppb | Sb ppm | W ppm | Hg ppm |
| WMS 30 | W坆6: | 021 | 1.9 | 183 | 4933] | 1.7 | 021 | 556 | 88885 |
| WMS 22 | 20 | 020 | 3.5 | \%95 | $3{ }^{3}$ | 12as | 025 | 1363 | , 6\%99: |


| Group 7 | $-80+200$ | $-80+200$ | $-80+200$ | $-80+200$ | -200 | Pan con. | Pan con. | Pan con. | Pan con. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Sample | Au ppb | Sb ppm | W ppm | Hg ppm | Au ppb | Au ppb | Sb ppm | W ppm | Hg ppm |
| WMS 29 | ETas94\% | 0.6 | 09 |  | 13913 | $200 \%$ | 0.53 | \% $10{ }^{\text {a }}$ | 10 |
| WMS 17 | 1911 | 055 | 63 | \% 245 ] | 1104 | \% 20.2 | 0.56 | 95 | 611 |

Dates worked were August 12-31, September 1, 4-30, October 1-2, 2000

## Chapter Three: GEOCHEMICAL SURVEY

### 3.1 Soil Geochemistry

No soil samples were taken

### 3.2 Rock Geochemistry

Forty-seven (47) float and 4 bedrock samples were taken and locations marked with red flagging tape. Forty-seven float and 4 bedrock samples were tested by Au (30g) FAA and 30 element ICP.

### 3.3 Silt Geochemistry

Thirty (30) silt samples were taken, 31 sites were chosen but one could not be done. It was just a quagmire and no silt could be detected Sample locations were marked with yellow and blue flagging tape

A Home Hardware pail ( 10 litre) was filled with water Inside I put a bowl and a -20 mesh screen on top. From many active sites and moss mats I filled up 2 soil bags with -20 mesh material.

The samples were tested for ( $-80+200$ mesh) 30 g 36 element ICP ultratrace (includes Au ) and ( -200 mesh) Au 30 g fire assay.

### 3.4 Pan Concentrate Geochemistry

Twenty-nine (29) pan concentrate samples were taken Thirty-one sites were chosen but it was not possible to get samples at 2 of the sites because no silt could be detected

At each of the sites I filled up a heaping gold pan with -8 mesh material from active stream areas I panned each down to about 1 pound This was pulverized and tested for $(-80+200$ mesh) $\mathbf{3 0 g} 36$ element ICP ultratrace (includes Au ) and ( -200 mesh) Au 30 g fire assay

### 3.4 Interpretation

Sample groups $1,2,5,6$, and 7 drain a possible continuous linear The best target is drainage 7 because of its high - 200 mesh gold. Drainages 5 and 6 are along the structure and also have good -200 mesh Au.

Drainage 3 is off the linear and has a high - 200 mesh Au Placer gold is present in this area and there has been production (per. comm. Joel White)

Drainage 4 has a high - 200 mesh Au and active placer claims and the mouth of the creek has been mined in the past

The linear target has a length $\pm 5 \mathrm{~km}$ and has multiple faults
Pan concentrate samples did not produce and spectacular results so I can guess that the gold is very fine and there may be micron sized gold also

Drainages 5; 6 and 7 are anomalous in -200 mesh $\mathrm{Au}, \mathrm{W}, \mathrm{Hg}, \pm \mathbf{S b}$.
Only 1 rock sample has W - 107, and few had Sb. I have not seen a rock that can explain the Au anomalies

It may be a distal Tombstone type occurrence like Donlin Creek in Alaska

## Chapter Four: PROSPECTING

Further work is warranted I can go by helicopter to WMS 15 and possibly to WMS 22
I will do more silt and pan samples in streams up from WMS 22 and also hike into upper Oil Gulch (drainage 3) and to upper Mills Creek to do the same kind of sampling Perhaps soil lines at 100 foot intervals will be done up the hills towards Eureka Dome in between drainages 5, 6, and 7

A deposit target may be up to $\pm 6 \mathrm{~km}$. A "Trüe North" type deposit may be possible
As no bedrock was observed (once saw outcrop about $1 / 2$ mile away), deep maybe 3-4 foot soil samples may be necessary because of leached unglaciated terrain Also the streams, except for one, were full of sand and very fine grit. This is a very difficult area to explore.
APPENDIX 1
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Yukon MINFILE, 1150118 (ARMENIUS)
Yukon MINFILE, 1150153 (DONNA)
Open File 1565 (1991), Wheeler and McFeely
Personal Communication
Craig Hart, Yukon Geology Program
Ken Galambos, YMIP geologist, Yukon Geology Program
Yukon Placer Industry Report - 1978-1982, 1983-1984, 1985-1988, 1989-1990, 1991-1992, 1993-1994, 1995-1997

## YUKON MINING: INCENTIVES PROGRAM

File No. 93-010

## SUMMARY REPORT

# JAMES S. CHRISTIE: \ GIMLEX ENTERPRISES LTD 

 1993 PROSPECTING AND RELATED ACTIVITIES
## NTS 115 O- 10

# Gyppo and Childs Creek Areas Yukon Territory 

December 19,1993.

## INTRODUCTION

Prospecting in 1992, funded in part by a YMIP Grant, resulted in discovery of significant gold geochem anomalies on the GO and CG claims on Gyppo Creek and Childs Creek. These discoveries resulted from reconnaissance prospecting traverses which relied heavily on soil geochemıstry because the areas have little natural outcrop, and conventional prospecting is not very effective.

The 1993 proposal and current YMIP Grant were directed to following up some of the geochemical anomalies of the previous year with more detailed sampling, and extending the reconnaissance work into immediately adjacent areas which appeared to be of interest. The work completed during the season utilized the knowledge gained in the previous year as proposed, and claims were acquired on lower Gold Run Creek, but it was too late in the season to get any work done there in 1993.

## SIGNIFICANT RESULTS

## GYPPO CREEK AREA \# 1

Soil and rock chip sample results have shown the anomalous gold geochemistry to extend over a large area ( $1000 \times 1000 \mathrm{~m}$ ) between Gyppo and Rob Roy Creeks, and it probably extends to the northwest under cover of the Dominion Creek floodplain. This area is worthy of a lot more exploration work in the future.

Auger drilling in Dominion Creek valley ( RR 3 and 38 claims ) about 2 km southwest of the large soil anomaly at Gyppo Creek gave "ore grade" results from 3 of 53 holes. The drill holes are on a $100 \times 300 \mathrm{ft}$ grid ( Map 93-2).

## CHILDS CREEK AREA *2

A 1992 silt sample collected north of Barite Pup ran 170 ppb gold. This was followed up with more sampling and staking in 1993. Mineralized float was found just upslope of the original anomalous silt and an assay of .414 oz/t gold was obtained. Some highly anomalous soil samples were also obtained ( Fig. 1. ), and more work will be needed in this area in the future.

Reconnaissance work immediately north of the CG claims (1992) indicated that sulfide mineralization occurred in a fairly large area on the west flank of Eureka Dome, on the divide between Childs and Eureka Creeks.Anomalous results had been obtained from float the previous year. The EEG claims were staked, and results of silt samples collected in the headwaters of Eureka Creek were highly anomalous ( up to 2170 ppb gold). More claims were staked to cover this large anomalous area (Fig. 2. and Claim Map 1. ), but time did not permit any follow - up in 1993.



| MINFILE: | 1150057 |
| :--- | ---: |
| PAGE NO: | 1 of 2 |
| UPDATEA: | $0220 / 97$ |

## YUKON MINIFILE YUKON GEOLOGY PROGRAM WHITEHORSE

NAME(S): Enreka<br>MINFILE 5: 1150057<br>MAJOR COMMODIYIES: -<br>MINOR COMMODIIIES: -<br>TECTONIC ELEMENT: Yukon Tanana Terrane

NTS MAP SRIEET: 115010
LATITUDE: $63^{\circ} 32^{\prime 2} 29^{\circ} \mathrm{N}$
LONGTIUDE: $138^{\circ} 51^{\prime} 03^{\circ} \mathrm{W}$
DEPOSTT TYPE: Unknown
STATUS: Anomaly

## CLAAMS (PREVIOUS AND CURRENT)

JUMBO, SKUKUM, PERSHING, SILVER KING, BLACK HILLS LODE, REKA, CHI, GO, CG, CLARA, EG, BP, BHG, CLARA B

## WORK HISTORY

Staked as Jumbo cl (4608) in May, 1900 and as Stankm el (1876) in Jun/01. Other claims in this area include Harriet Smith cl (1262) in Oct/08. The Pershing and Jumbo el (13238) were staked to the south, on the ridge between Ids and Sprague Pups, in Jul/20.

Other nearby claims in the Black Hills Creek Valley include Silver King cl (12197) in Dee/ll by H.M. Peck, who trenched in 1912 (between Golden Gate and 28 Pups), and Black Fills Lode cl (12433) in Aug/14 by H. Porter, who trenched later in the year (between Golden Gate and Carpent Pups).

The area was restaked as Reloa cl (YB4992) in May/88 by Dawson Eldorado ML and Wealth Res L, which mapped and soil sampled in 1989. F. Dorward staked CHI cl (YA89771) 3 km to the south in Ang/87 and trenched in 1988-89.

Restaked Sep/92 as CG 1-36 cl (YB41469) and GO cl (YB41153) by J.S. Christie. Christie added 26 EG claims (YB42195), 6 BP claims (YB44805), 26 BHG claims (YB45284) and two CG fractions in June, Angust and September, 1993. During July.and Aug/93 Christie explored with soil geochemistry surveys on the CHI, CG, GO, BHG, BP and EG claipns; and trenched and sampled on the CG claims. In Jul/95 T. Christie restaked EG cl 1-6, 10 (YB53947). The following month Christie carried out a soil sampling program overtop EG claims located on the upper left fork headwaters of Eureka Creek.
.B. Harris and D. Moore staked Clara $1-58$ el (YB41533) 1 fm to the west in Sep/92 for Pearl Petrolewn Corp., which performed geological mapping, and soil and rock sampling.
C.R. Limle added 95 Clara B claims (YB44921) in Jul/93. Pacific Mariner Explorations Lid and Wealth Resources Lid optioned the Clara claims in Sep/93. P. Southam staked Clara B el 101-106 (YB52726) in Sept/94. C.Littie later added Clara. B el 107-130 (YB52853) to the elaim groap in Oct/94. In the summer of 1995 the companies carried out trenching and soil and rock sampling on the claims.

Weath Resources registered a 50\% interestin Clara B al 1-12 (YB44921) and 15-100 (YB44933) in Apt/95. Later in the same month a 100\% interest in Clara B cl 107-112(YB52853), 117-123 and 128-130 was transferred to Weath Resources. In the summer of 1995 Wealth and Pacific Mariner carried out further treoching, prospecting and VLF-EM geophysics on the Clara B claims located near the junction of the left and right forks of Eureica Creek.

## GEOLOGY

[^0]
## GEOLOGY (CONTINUED)

found in this area contained up to 208 ppb Aul. (3) Soil samples adjacent to the eastemmost lineament reurned values up to 155 ppb Au.

Pearl Petroleum's 1993 field program identified several gold in soil anomalies, the best of which strikes north-northeast and is at least 1.25 km long with an average width of 110 metres.

Recommaissance soil sampling on the EG claims outined a 1067 m long intermittent Pb -As-Sb-Hg anomaly southwest of the headwaters of Eureka Creek, while soil sampling on the BP claims outtined two Au-Pb anomalies 150 m upslope from Bante Pup. Soil sampling on the BHG claims outlined several spot $\mathrm{Au}+/-\mathrm{Pb}$ and As anomalies. The 1995 soil survey tested the area northeast of the 1994 soil anomaly. The survey did not rearn any anomalous results.

Wealth and Pacific Mariners' 1994 program followed up targets idencified the previous year. A total of 368 soil samples and 15 rock samples were collected from several grids and 3 new anomalous zones were identified. The best soil sample returned 556 ppb Au and 0.3 ppm Ag. Five trenches were dug in the fall to test previously identified amomalies. Two of the trenches encoumtered permafrost and were abandoned. The remaining 3 trenches exposed fault gouge zones. The best result was obtained from grey colored graphitic fault gouge located in trench 45 , which assayed 640 ppb Au.

In 1995 Wealth and Pacific Mariner continued the exploration program begun the previous year. The companies carried out 3 short lines of VLF-EM geophysics across the left fork of Eateka Creek southwest of the junction of the left and right forks. Two conductors were ourlined overtop water-logged placer tailings. Two trenches were dug exposing sericitic quartzite. Samples collected from the trenches returned background levels for Au. Trenches also tested possible fault zones. Trench 95EC1 tested a fault zone consisting of extensive graphitic schist, biocky and broken quartrite and a 1 m wide quarty vein. Samples from this zone and all other trenches, returned background levels for all elements.

## REFERENCES

DAWSON ELDORADO MINES LTD AND WEALTH RESOURCES INC., Sep/88. Assessment Report $\# 092720$ by P.D. Van Angeren.

GEORGE CROSS NEWSLETTER, 3 Sep/93.
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J.S. CHRISTIE, Jul/95. Assessment Report $\mathbf{\# 0 9 3 2 7 9}$ by J.S. Christic.
J.S. CHRISTIE, Jul/95. Assessment Report ${ }^{3} 093280$ by J.S. Cbristic.
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YUKON MINTILE YUKON GEOLOGY PROGRAM WHITEEHORSE

NAME(S): Armenius
MINFILE A: 1150118
MAJOR COMMODITIES: Au
MINOR COMMODITIES: -
TECTONIC ELCMENT: Yukon Tanana Terrane

NTS MAP SHEEET: 115016
LATTTUDE: 63³6'19"N
LONGITUDE: $138^{\circ} 51^{\prime} 52^{\circ} \mathrm{W}$
DEPOSTT TYPE: Vein
STATUS: Showing

## CLAIMS (PREVIOUS AND CURRENT)

ARMENIUS, AJM, BUFF, GOPHER, MARMOT, CLARA B,

## WORK HISTORY

Staked as Armenius, etc. claims (6148) in September, 1902 by Herman Wohlgethan and T. Chishoim, who trenched anmually until 1905. A. McKenzie and associates tied on Joseph, etc. claims (6613) in April, 1903.

Restaked as AMM claims (YA89767) in August, 1987 by United Keno Hill Mines Lid. D. Hermanutz and K. Daunt staked Buff claims (YB17654) 2 km to the northeast in August, 1988 and added more Buff claims and mapped in 1989. G. Daunt staked Buff 1-6 (YB52312) 2 km to the north and Buff 19-20 (YB52318) and Buff 25-28(YB52320) overtop of the showing in July/94. N. Loveless staked Nona el 1-2 on the northeast boundary of Buff 1-6 claims in the same momh.

In Aug/94 A. Woodsend staked Gopher el 1-14 (YB52367) and Marmot cl 1-16 (YB52535) 5 km east of the occurrence. In Oct/94 Woodsend added Gopher cl 15-22 (YB52885).

In Oct/94 K. Daunt added Buff cl 7-10 (YB52877) and C. Litule staked the Clara B el 107-130 (YB52853) south and west of the Buff cl. In 1995 Daunt carried out a small prospecting and rock sampling program on the Buff claims.

## GEOLOGY

The original staking was prompted by reports of a quartz "ledge" 18 m wide and 3 to five bilometres long. Samples collected by Wolgethan from a depth of 12 m in his shaft were reported to assay $\$ 284$ per ton (gold at $520 / 0 z$ ). According to the newspaper account, specimens were friable and contrined free gold.

Hermanutz and Daumt uncovered a wide gossan while placer mining near the mouth of Eurela Creek. Quartz-sericite schist and biocite schist comain pyritic quartz stringers and graphite in an east-trending clay-altered, shear zone. Visible gold has reportedly been panned from crushed samples.

Daunt assayed 27 rock samples from a variety of rock types on the Buff claims. His best assay was 0.34 $\mathrm{g} / \mathrm{A} \mathrm{Au}$, from a quartz vein in quartz schist.

## RGFIERENCES

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DAUNT, K., Oct/95. Assessment Report \#093444 by K. Daunt.
YUKON EXPLORATION 1989;p.128-129
YUKON SUN, 4 Apr/03.

YUKON MINTHILE

| NAME(S): Donna | NIS MAP SHIDET: 11509 |
| :---: | :---: |
| MINFILE | LATITUDE: $63^{\circ} 28^{\prime} 00^{\prime \prime} \mathrm{N}$ |
| MAJOR COMMODITIES: - | LONGITUDE: $138^{\circ} 49^{\prime} 00^{\prime \prime} \mathrm{W}$ |
| MINOR COMMODITIES: - | DEPOSTT TYPE: Unknown |
| THECTONIC ELEMENT: Yukon Tanana Terrane | STATUS: Uncertain |

## CLAMS (PREVIOUS AND CURRENT)

DONNA, GOOD, HB

## WORK EISTORY

D. Laurenson staked the Doma claims (YB39500) in 1990. The Good 1-2 cl (YB44879) were staked nearby at the mouth of Morris Gulch by C.R. Little, in Jul/93, who transferred them to Klondike Reef Mines in March/94.

In Jul/95 R. Beckett staked HB cl 1-32 (YB53915) 8 km to the east.

## GEOLOGY

The claims straddle the upper part of Black Hills Creek and were probably staked in conjunction with placer mining.

Barramunds Gold contanued to work on their Longline (Yukon Minfile, 1997, 115N 024) property, which is the most advanced property in the northern portion of the Dawson Range. The company carred out two phases of diamond drilling (Fig. 15), 53 kslometres of Gradient Induced Polanzation, 25 kilometres of Real Section Induced Polarization surveys, geochemical surveys, prospecting and sampling. The property is underiain by granodionte of the Klotassin Batholith, which is host to several high-grade quartz-sulphide vein occurrences. The first phase of drilling was directed at outining a small reserve on the V2 vein, which could then be bulk sampled. The ven was tested with $\mathbf{2 2}$ holes totalling $\mathbf{5 5 0}$ metres. Assays up to $386.6 \mathrm{~g} / \mathrm{t}$ Au over 0.66 metres were obtaned from the driling. The drilling was difficult with vanable core recovery, and the results reflect the strong nugget effect that is evident from surface sampling. A second phase of drilling was conducted after a financing arrangement and joint venture agreement with Newmont Exploration. This phase of drilling targeted coincident gold-arsenic-geochemical and geophysical (gradient I.P.) anomalies, which had never been previously tested. Tweive holes totaling $\mathbf{2 1 0 0}$ metres were drilled. High-grade quartz veining, similar to venning cutting the granodionte on surface, was intersected at depth with values up to $45.7 \mathrm{~g} / \mathrm{t}$ Au over 0.20 metres. Several drill holes intersected altered granodionte, consisting of locally intense sericite and silica alteration with disseminated arsenopyrite and pyrte. The alteration zones assay as high as $3.19 \mathrm{~g} / \mathrm{t}$ Au over 27 centumetres and $2.23 \mathrm{~g} / \mathrm{t}$ Au over 1.00 metre. These zones generally range between 0.10 and $0.30 \mathrm{~g} / \mathrm{t}$ Au over widths of 10 to 20 centumetres; these zones average $1-2$ per metre over several metres cored with. An average of $\mathbf{2 0}$ alteration zones occur per hole, with 52 found in hole L199-10.

Troymun Resources Ltd. conducted an exploration program consistung of stream sediment sampling, ridge-and-spur soil sampling, rock sampling and mapping on its newly staked Moosehorn Property adjacent to the Longline property. The property covers 294 LAD claums in the Moosehorn Range mountains, 80 kilometres north of Beaver Creek. The stream sediment sampling program identified three areas of anomalous metal zonation: 1) the northwest part of the property is Brnch; 2) the central part of the property is $\mathrm{Au}, \mathrm{Ag}$ and As nch; and 3) the south-central part of the property is Sb -rich. Anomalous $\mathrm{Zn}, \mathrm{W}$ and Hg values are urregularly distributed throughout the property. Goid values in stream sediments range from less than detection ( $<0.2 \mathrm{ppb}$ ) to 701.6 ppb , with 5 samples greater than 100 ppb . The ridgeand-spur soll sampling program returned values up to 364 ppb Au , with 4 samples > 100 ppb . Three areas of coincadent, anomalous $\mathrm{Au}, \mathrm{Ag}, \mathrm{As}, \mathrm{Sb}, \mathrm{Bi}, \mathrm{Pb}$ and Zn were identrifed, two of which are greater than 400 metres long. Rock samples from the property returned values up to $432 \mathrm{ppb} \mathrm{Au}, 0.4 \% \mathrm{~Pb}, 1.2 \% \mathrm{Zn}, 10.2 \mathrm{~g} / \mathrm{t} \mathrm{Ag}$ and $0.45 \% \mathrm{As}$ (S. Casselman, pers. comm., 1999).

Kennecott Canada conducted geochemical surveys, geological mapping, prospectung, minor trenching and arroorne geophysical surveys on the Sixty and Poker Creek properties in the Sixty Mile Creek, Clacrer Creek and Miller Creek areas. No results from the program were released.
Nordac and Expatriate Resouces formed the Eureka Joint Venture to explore the EurekaArmenius, Forty and Track properties in west-central Yukon. The properties are all within hustoric placer gold minung areas. The propertues were explored with geochemucal sampling, mapping, prospecting and hand trenching. The Track (Yukon Minfile, 1997, 116C 137) property, about 50 kilometres northwest of Dawson City, hosts tungsten-bearng skarns developed in metasedimentary rocks along the north side of a Cretaceous intrusion. Prospectung in a heavily vegetated area near one of the skarn showngs located float specimens that returned anomaious gold, bismuth and tungsten values. The best specimen yielded $3.59 \mathrm{~g} / \mathrm{t} \mathrm{Au}, 1655 \mathrm{ppb}$ bismuth and 810 ppm tungsten.
The Eurrekā/Aन̈nenius (Yukon Minfile, 1997, 115 N 057) properties adjoin one another and collectively total 386 claims covering 8000 hectares. They are located in the southern part of the Klondike Goldfields and are easily accessible by an extensive network of roads serving

Figure 16. Jean Pautler of Teck Exploration examunes quartz mineralization hosted in Cretaceous quartz monzonite on the Ten Mile Creek property.
local placer miners Creeks draming the property have produced more than 140,000 ounces ( 4.3 million grams) of placer gold. The clams are underlam by metasedimentary and metavolcantc rocks of the Devonıan to Mıssissippian Nasına Assemblage of the YukonTanana Terrane. The best bedrock exposures are in a few bulldozer trenches excavated by a previous owner. Sampling on the floor of one of these trenches returned a weighted average of $033 \mathrm{~g} / \mathrm{t} \mathrm{Au}$ across a 65 -metre-wide limonitic fracture zone. Prospectıng along access roads and in soil profiles on the banks of trenches discovered abundant previously unbroken and unreported boulders of limonite breccia. Samples of the breccia assayed in the range of 0.85 to $15.00 \mathrm{~g} / \mathrm{t}$ Au. A regional-scale thrust was mapped and sampled in a placer mıner's cut and one of seven samples taken assayed $7538 \mathrm{~g} / \mathrm{t}$ Au. Before the crew could return to the area, placer muning had progressed upstream and the sampled area had been rebuned Subsequent sampling of another bedrock exposure adjacent to an area that was betng actively placer mined and was producing gold, returned low values Results from this target suggest the gold is erratically distributed within strongly fractured rocks developed along the thrust fault

Teck Exploration performed a program of geological mapping, prospecting, and soil and stream sediment sampling on the Ten Mile (Yukon Minfile, 1997, 115N 110) Creek property The clams are underlain by a quartz monzonite intrusive of probable Cretaceous age (Fig 16) intrudıng Yukon-Tanana Terrane metamorphic rocks Phelps Dodge has a large block of FLUME claims that adjoin the Teck property and cover similar geology Phelps Dodge performed a small program of mapping, geochemical sampling and prospectung on the FLUME clams. No results have been released from ether program

Prospector international optioned six properties staked by Prme Properties Syndicate on targets modelled after the POGO deposit in Alaska. The properties include the HIHO, YOGO, OHGO, PREMO, TKO and LADUE clarms. Prospector International performed stream-sediment geochemustry, reconnarssance soil geochemistry and prospecting on the varous targets. The properties produced several areas with anomalous gold, arsenic, antımony and mercury, which warrant follow-up programs.

Other major claum holders in the Dawson Range who have also performed small programs of geochemical samping and prospecting include Canandran United Minerals Incorporated and Deltango, both private Yukorbased exploration companies.

Pacific Rudge Exploration conducted a 9-hole, 995-metre damond driling program on the jRV (Yukon Munfile, 1997, 105K 051, 052, 053) property near Faro in central Yukon (Fig. 17). The property hosts silver-gold muneralization within the midCretaceous Anvil Range plutonic sute. Mineralization, discovered as float in Hugh Ace Creek, consists of quartz-sulphide breccia, quartz stockwork and sheeted verns. Grab sampling of this material withın the Kulan zone averaged $138 \mathrm{~g} / \mathrm{t} \mathrm{Ag}$ and $1.7 \mathrm{~g} / \mathrm{t} \mathrm{Au}$. Geochemical sampling and geophysical (induced Polanzation) surveys produced

Expatriate Resources Ltd -
Expatriate and Nordac form Eureka joint venture

## Expatriate Resources Ltd

> EXR

Shares issued $14,347,500$
1999-04-26 close $\$ 0.57$
Wednesday Apr 281999
Also Nordac Resources Ltd (NRQ)
Dr. Harlan Meade and Mr. Douglas Easton report
Expatriate and Nordac have formed the Eureka joint venture (EJV) to explore for gold within a 12,300 square kilometre area in Western Yukon. EJV interests are owned 50 per cent by Expatriate and 50 per cent by Nordac. The project area lies within the Tintina gold belt and covers the richest placer districts in Yukon. EJV landholdings include four recently staked prospects (Eureka, Armenius, Track and Forty Mile properties) and two volcanogenic massive sulphide targets (Top and River properties). Terms related to EJV's formation require Nordac to transfer its 100 per cent interest in the Eureka 1-56, Armenius 1-16, Track 1-68, Top 1-24 and River 1-24 claims to EJV. Expatriate will contribute its 100 per ' cent interest in the Forty 1-20 claims to EJV, repay Nordac's staking costs for the transferred Eureka, Armenius and Track claims, pay for the staking of an additional 318 claims and finance preparation of technical summaries describing . the prospects.
The Tintina gold belt extends for 2,000 kilometres in a broad arc across Alaska and Yukon. It has long been recognized for its highly productive placer camps, including the world-famous Klondike gold field. In recent years a number of major hard rock gold deposits have been discovered such as Fort Knox, True North, Donlin Creek. Pogo, Brewery Creek and Dublin Gulch. Many of these discovenes ise within established placer camps. Total gold production and reserves within the belt are estimated at 69.2 million ounces and this figure is expected to grow dramatically as exploration accelerates.
The Eureka and Armenius properties consist of 390 adjoining claims $(7,800$ hectares) 60 kilometres by road southeast of Dawson City. The properties cover the headwaters of Eureka and Black Hills Creeks which together produced more than 140,000 ounces of placer gold. Records from the placer operations indicate that the gold in both creeks is relatively coarse and often is attached to quartz grains, and that the fineness (purity) of the gold systematically decreases in the upstream direction. These facts suggest that the gold is derived from nearby bedrock sources. This conclusion is further supported by strongly anomalous results for gold and key indicator elements from geochemical analyses of stream sediment samples taken from the creeks. The left fork of Eureka Creek is particularly interesting with very anomalous values for gold, arsenic, antimony and mercury. These values compare favourably with results from streams draining the gold zones comprising the nearby Brewery Creek mine. Relatively little hard rock
exploration has been performed in the area and any work done has been limited by poor bedrock exposure. However, placer miners have discovered three gold showings where their workings cross the Armenius property. The showings are each about two kilometres apart and are all developed in altered and quartz veıned, Yukon-Tanana Terrane metasedimentary rocks in the immediate footwall of a regional scale thrust fault. No intrusive rocks have been mapped on either property but large areas of Cretaceous volcanic rocks lie immediately to the north. The geological setting and geochemical signature are characteristic of lower temperature distal style mineralization like that in the Donlin Creek deposit of southwest Alaska.
The road accessible Forty Mile property consists of 20 claims ( 400 hectares) about 75 kilometres northwest of Dawson City. This exploration target closely resembles those at the Eureka and Armenius properties. The claims are immediately upstream from placer workings that have produced 14,000 ounces of gold. Government geologists report quartz-siderite veins with visible gold have been exposed within sheared and altered metasedimentary rocks along a large thrust fault.
The Track property lies 50 kilometres northwest of Dawson City and comprises 68 claims ( 1,400 hectares). It covers multielement geochemical anomalies and two previously drilled tungsten showings developed in skarnified metasedimentary rocks adjacent to a large Cretaceous intrusion. The claims cover part of a broad magnetic low and lie about four kilometres south of the Tintina fault zone, a major high-angle structure. There is no record of systematic gold exploration on the property. Although limited analyses of tungsten bearing core returned mostly low gold values, encouraging results were obtained from two prospecting traverses. Specimens of creek float yielded moderate gold values ( 2.7 grams per tonne and 1.2 grams per tonne) with uncommonly high bismuth values ( 1,530 and 2,140 parts per million respectively).
The Track property shares several features common to known deposits in the Tintina gold belt, including its association with Cretaceous age intrusions, its low magnetic susceptibility and its strong lithophile geochemical signature. The Eureka joint venture is still formulating its exploration programs for these properties and is considering various alternatives, including joint ventures.

## Expatriate Resources Ltd -

Nordac and Expatriate begin 1999 exploration in Yukon
Expatriate Resources Ltd
EXR
Shares issued 14,347,500
1999-06-15 close \$0.47
Tuesday Jun 221999

## STATEMENT OF QUALIFICATIONS

I, John Peter Ross, do hereby certify that I
1 am a qualified prospector with mailing address,
Box 4842
Whitehorse, Yukon
Canada Y1A 4N8

5 have been on the Yukon Prospectors' Assistance and Yukon Mining Incentive Program 19862000

6 have been on the British Columbia Prospectors' Assistance Program-1989-1990

7
graduated from McGill University in 1970 with a B Sc General Science
have attended and finished completely the following courses,
1974 - BC \& Yukon Chamber of Mines, Prospecting Course
1978 - United Keno Hill Mines Limited, Elsa, Yukon, Prospecting Course
1987 - Yukon Chamber of Mines, Advanced Prospecting Course
1991 - Exploration Geochemistry Workshop, GSC Canada
1994 - Diamond Exploration Short Course, Yukon Geoscience Forum
1994 - Yukon Chamber of Mines, Alteration and Petrology for Prospectors
1994 - Applications of Multı-Parameter Surveys (Whitehorse), Ron Shıves, GSC
1994 - Drift Exploration in Glaciated and Mountainous Terrain, BCGS
1995 - Applications of Multi-Parameter Surveys, (Vancouver) Ron Shives, GSC
1995 - Diamond Theory and Exploration, Short Course \# 20, GSC Canada
1996 - New Mineral Deposit Models of the Cordillera, MDRU
1997 - Geochemical Exploration in Tropical Environments, MDRU
1998 - Metallogeny of Volcanic Arcs, Cordilleran Roundup Short Course
1999 - Volcanic Massive Sulphide Deposits, Cordilleran Roundup Short Course
1999 - Pluton-Related (Thermal Aureole) Gold, Yukon Geoscience Forum 2000-SEDIMENT HOSTED GOLD DEPOSITS, MDRU did all the work and the writing of this report
have a $100 \%$ interest in the claims described in this report at the present time


30 NOV 2000

## APPENDIX 3

Rock Sample Geochemistry - Assay Results

105 Copper Road Whitehorse, Yukon Y1A $2 Z 7$
Ph: (867) 668-4968 Fax: (867) 668-4890
\# of pages (not includıng this page): 2

## Peter Ross



Date Received: 02/10/2000

| SAMPLEPREPARATION: |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Code | $\begin{gathered} \text { \# of } \\ \text { Samples } \end{gathered}$ | Type | Preparation Description (All wet samples are dned first.) |  |  |  |
| r | 48 | rock | Crush to -10 mesh; riffle split 200g; pulverize to -100 mesh |  |  |  |
| ANALYTICAL MEIHODS SUMMARY: |  |  |  |  |  |  |
| Symbol | Units | Element | Method (A:assay) <br> (G.geochem) | Fusion/Digestion | Lower | Upper |
| Au 30g | ppb | Gold | G: FA/AAS | $30 \mathrm{~g} \mathrm{FA} / \mathrm{aqua}$ regia | 5 | 7000 |

AAS = atomic absorption spectrophotometry
FA = fire assay

$$
1000 \mathrm{ppb}=1 \mathrm{ppm}=1 \mathrm{~g} / \mathrm{mt}=0.0001 \%=0.029166 \mathrm{oz} / \text { ton }
$$

105 Copper Road Whitehorse, Yukon

Y1A $2 Z 7$
Ph• [867] 668-4968
Fax: (867) 668-4890 E-mail NAL@hypertech yk.ca


|  | Sample \# | Au 30g ppb |
| :---: | :---: | :---: |
| r | WMR3 | 14 |
| r | WMR5 | <5 |
| r | WMR6 | $<5$ |
| r | WMR7 | $<5$ |
| r | WMR8 | $<5$ |
| $r$ | WMR9 | 5 |
| $r$ | WMR10 | $<5$ |
| r | WMR11A | 5 |
| r | WMR11B | 8 |
| r | WMR12A | $<5$ |
| r | WMR12B | $<5$ |
| r | WMR13 | $<5$ |
| r | WMR14 | $<5$ |
| r | WMR15 | <5 |
| r | WMR16 | $<5$ |
| r | WMR17 | $<5$ |
| r | WMR18 | 8 |
| r | WMR19 | $<5$ |
| r | WMR20 | 5 |
| $r$ | WMR21 | $<5$ |
| r | WMR22 | $<5$ |
| $r$ | WMR24 | <5 |
| r | WMR25 | <5 |
| $r$ | WMR26 | 35 |
| r | WMR27 | <5 |
| r | WMR28 | 6 |
| r | WMR29 | $<5$ |
| r | WMR30A | $<5$ |
| r | WMR30B | $<5$ |
| r | WMR30C | $<5$ |

## Peter Ross



|  | Sample \# | Au 30g ppb |
| :---: | :---: | :---: |
| $r$ | WMR31 | <5 |
| r | WMR32 | <5 |
| r | WMR33 | 7 |
| r | WMR34 | 7 |
| r | WMR35 | <5 |
| r | WMR36 | 9 |
| r | WMR37 | 3 |
| r | WMR38 | 16 |
| r | WMR39 | 7 |
| $r$ | WMR40A | <5 |
| r | WMR40B | 10 |
| r | WMR40C | < |
| r | WMR40D | 7 |
| r | WMR41 | 14 |
| r | WMR42 | 7 |
| r | WMR43 | <5 |
| r | WMR44 | 12 |
| r | WMR45 | <5 |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |



Northern Analytical Laboratones

| Project. WO\#00075b |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Sample Name | $\begin{array}{r} \text { Mo } \\ \text { ppm } \end{array}$ | $\begin{array}{r} \mathrm{Tl} \\ \mathrm{ppm} \end{array}$ | $\begin{array}{r} \mathrm{Bl} \\ \mathrm{ppm} \end{array}$ | $\begin{gathered} \mathrm{Cd} \\ \mathrm{ppm} \end{gathered}$ | $\begin{array}{r} \text { Co } \\ \text { ppm } \end{array}$ | $\begin{array}{r} \mathrm{N}, \\ \mathrm{ppm} \end{array}$ | $\begin{array}{r} \mathrm{Ba} \\ \mathrm{ppm} \end{array}$ | $\begin{array}{r} \text { W } \\ \text { ppm } \end{array}$ | $\begin{array}{r} \mathrm{Cr} \\ \mathrm{ppm} \end{array}$ |
| WMR 3 | 17 | <10 | <2 | 07 | 1 | 4 | 28 | < | 166 |
| WMR 5 | 1 | <10 | <2 | 1 | 8 | 12 | 100 | <5 | 108 |
| WMR 6 | 1 | <10 | $<2$ | 08 | 8 | 10 | 141 | <5 | 81 |
| WMR 7 | 1 | <10 | <2 | 09 | 3 | 4 | 25 | < | 94 |
| WMR 8 | 4 | <10 | <2 | 19 | 24 | 13 | 811 | <5 | 82 |
| WMR 9 | 24 | <10 | $<2$ | 104 | 17 | 127 | 1285 | <5 | 118 |
| WMR10 | 1 | <10 | $<2$ | 1.2 | 2 | 10 | 164 | < | 187 |
| WMR11A | 10 | <10 | <2 | 57 | 17 | 107 | 324 | <5 | 78 |
| WMR11B | 29 | $<10$ | <2 | 105 | 12 | 128 | 1210 | $<5$ | 108 |
| WMR12A | $<1$ | <10 | <2 | 02 | 1 | 6 | 32 | <5 | 168 |
| WMR12B | <1 | <10 | <2 | 01 | 1 | 5 | 20 | <5 | 209 |
| WMR13 | 14 | <10 | $<2$ | 36 | 11 | 41 | 292 | <5 | 88 |
| WMR14 | 9 | <10 | $<2$ | 2.7 | 10 | 29 | 202 | <5 | 106 |
| WMR15 | 1 | <10 | $<2$ | 06 | 3 | 11 | 552 | < | 185 |
| WMR16 | <1 | <10 | $<2$ | 04 | 12 | 5 | 121 | <5 | 117 |
| WMR17 | 1 | <10 | <2 | 02 | 5 | 6 | 28 | <5 | 174 |
| WMR18 | 3 | <10 | $<2$ | 16 | 6 | 27 | 2985 | <5 | 101 |
| WMR19 | 21 | <10 | $<2$ | 34 | 9 | 119 | 279 | < | 100 |
| WMR20 | 7 | <10 | $<2$ | 18 | 5 | 22 | 299 | <5 | 118 |
| WMR21 | 1 | <10 | $<2$ | 02 | 2 | 18 | 18 | 107 | 134 |
| WMR22 | 11 | <10 | $<2$ | 37 | 12 | 43 | 298 | <5 | 84 |
| WMR24 | $<1$ | <10 | <2 | 03 | 1 | 5 | 37 | <5 | 178 |
| WMR25 | 9 | <10 | $<2$ | 36 | 9 | 31 | 171 | <5 | 105 |
| WMR26 | 43 | <10 | $<2$ | 12 | 5 | 35 | 864 | <5 | 355 |
| WMR27 | 2 | <10 | $<2$ | 13 | 10 | 16 | 1799 | <5 | 79 |
| WMR28 | 10 | <10 | <2 | 01 | 1 | 4 | 73 | <5 | 162 |
| WMR29 | <1 | <10 | <2 | 01 | $<1$ | 3 | 16 | <5 | 166 |
| WMR30A | 10 | <10 | <2 | 03 | 1 | 4 | 1320 | <5 | 91 |
| WMR30B | 10 | $<10$ | $<2$ | 04 | 2 | 9 | 1426 | <5 | 121 |
| WMR30C | 4 | <10 | <2 | 02 | 1 | 9 | 282 | <5 | 120 |
| WMR31 | $<1$ | <10 | $<2$ | 05 | 2 | 7 | 56 | <5 | 163 |
| WMR32 | 2 | <10 | <2 | 08 | 3 | 12 | 191 | <5 | 122 |
| WMR33 | 4 | $<10$ | $<2$ | 05 | 6 | 16 | 1250 | <5 | 134 |
| WMR34 | 10 | <10 | <2 | 13 | 3 | 5 | 173 | 5 | 211 |
| WMR35 | 2 | <10 | $<2$ | 13 | 5 | 34 | 167 | <5 | 71 |
| WMR36 | 14 | $<10$ | <2 | 2.2 | 9 | 18 | 482 | <5 | 140 |
| WMR37 | 9 | $<10$ | $<2$ | 04 | 2 | 4 | 122 | <5 | 108 |
| WMR38 | 6 | $<10$ | <2 | 1 | 8 | 17 | 1971 | <5 | 92 |
| WMR39 | 13 | $<10$ | <2 | 06 | 2 | 9 | 93 | <5 | 120 |
| WMR40A | 1 | $<10$ | <2 | 05 | 2 | 7 | 92 | <5 | 117 |
| WMR40日 | 17 | <10 | <2 | 04 | 2 | 7 | 1434 | <5 | 121 |
| WMR40C | 4 | $<10$ | <2 | 01 | 2 | 7 | 382 | <5 | 75 |
| WMR40D | 7 | <10 | <2 | 2.2 | 9 | 39 | 125 | <5 | 125 |
| WMR41 | 9 | <10 | $<2$ | 23 | 12 | 44 | 181 | $<5$ | 78 |
| WMR42 | 1 | <10 | <2 | 17 | 22 | 339 | 1978 | $<5$ | 154 |

## Northern Analytical Laboratones

Project: WO\#00075b

| Sample Name | $\begin{array}{r} \mathrm{V} \\ \mathrm{ppm} \end{array}$ | $\begin{array}{r} \mathrm{Mn} \\ \mathrm{ppm} \end{array}$ | $\begin{array}{r} \text { La } \\ \text { ppm } \end{array}$ | $\begin{array}{r} \mathrm{Sr} \\ \mathrm{ppm} \end{array}$ | $\begin{array}{r} \mathbf{Z r} \\ \mathrm{ppm} \end{array}$ | $\begin{array}{r} \mathrm{Sc} \\ \mathrm{ppm} \end{array}$ | $\begin{aligned} & \mathrm{Ti} \\ & \% \end{aligned}$ | Al \% | Ca $\%$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| WMR 3 | 3 | 51 | 2 | 2 | 1 | <1 | <0 01 | 005 | 003 |
| WMR 5 | 22 | 801 | 31 | 3 | 5 | 7 | <0 01 | 037 | 014 |
| WMR 6 | 17 | 715 | 50 | 3 | 4 | 6 | <0 01 | 038 | 0.12 |
| WMR 7 | 11 | 106 | 4 | 1 | 2 | 2 | <0 01 | 024 | 0.02 |
| WMR 8 | 6 | 5352 | 18 | 6 | 4 | 1 | $<0.01$ | 0.37 | 0.01 |
| WMR 9 | 421 | 760 | 8 | 48 | 3 | 5 | $<001$ | 0.33 | 0.05 |
| WMR10 | 10 | 84 | $<2$ | 5 | 1 | <1 | $<001$ | 0.04 | 001 |
| WMR11A | 75 | 2068 | 17 | 8 | 4 | 8 | $<001$ | 0.29 | 0.03 |
| WMR11B | 457 | 447 | 6 | 31 | 3 | 4 | <0.01 | 026 | 003 |
| WMR12A | 8 | 49 | $<2$ | 2 | 1 | <1 | <0 01 | 003 | 001 |
| WMR12B | 5 | 36 | <2 | $<1$ | <1 | <1 | $<001$ | 002 | 001 |
| WMR13 | 51 | 1087 | 9 | 60 | 7 | 9 | $<001$ | 0.15 | 0.02 |
| WMR14 | 48 | 202 | 4 | 17 | 1 | 4 | $<001$ | 025 | 0.02 |
| WMR15 | 7 | 107 | 14 | 7 | 9 | 3 | $<001$ | 0.32 | 001 |
| WMR16 | 10 | 118 | $<2$ | 5 | 1 | 1 | 003 | 04 | 023 |
| WMR17 | 4 | 54 | <2 | 2 | <1 | <1 | 0.01 | 01 | 005 |
| WMR18 | 51 | 171 | 10 | 403 | 5 | 3 | $<001$ | 0.91 | 003 |
| WMR19 | 51 | 215 | 3 | 40 | 3 | 2 | $<001$ | 028 | 002 |
| WMR20 | 31 | 1120 | 6 | 49 | 3 | 3 | <0 01 | 0.18 | 002 |
| WMR21 | 2 | 591 | 2 | 12 | 1 | 1 | <0 01 | 071 | 089 |
| WMR22 | 40 | 812 | 7 | 25 | 3 | 18 | <0 01 | 0.11 | 005 |
| WMR24 | 4 | 34 | $<2$ | <1 | <1 | $<1$ | <0 01 | 003 | 001 |
| WMR25 | 44 | 141 | 3 | 29 | 1 | 2 | $<001$ | 019 | 001 |
| WMR26 | 57 | 241 | 8 | 120 | 5 | 2 | $<001$ | 0.45 | 004 |
| WMR27 | 37 | 511 | 14 | 39 | 3 | 9 | $<001$ | 041 | 002 |
| WMR28 | 2 | 56 | <2 | 1 | 1 | <1 | $<001$ | 003 | <0 01 |
| WMR29 | $<2$ | 37 | <2 | $<1$ | $<1$ | <1 | $<001$ | 002 | 001 |
| WMR30A | 15 | 75 | 5 | 37 | 3 | 1 | <0 01 | 015 | 017 |
| WMR30B | 17 | 164 | 5 | 24 | 3 | 1 | $<0.01$ | 015 | 007 |
| WMR30C | 23 | 171 | 7 | 37 | 3 | 1 | <0 01 | 014 | 004 |
| WMR31 | 10 | 118 | 2 | 4 | <1 | <1 | $<001$ | 007 | 002 |
| WMR32 | 11 | 130 | 2 | 17 | 1 | <1 | $<001$ | 008 | 002 |
| WMR33 | 11 | 250 | 6 | 12 | 1 | 1 | <0 01 | 008 | 002 |
| WMR34 | 18 | 386 | 10 | 24 | 4 | 1 | $<001$ | 022 | 002 |
| WMR35 | 20 | 494 | 43 | 5 | 5 | 3 | <0 01 | 037 | 003 |
| WMR36 | 126 | 991 | 17 | 64 | 6 | 2 | $<001$ | 034 | 004 |
| WMR37 | 10 | 265 | 11 | 13 | 3 | $<1$ | $<001$ | 019 | 001 |
| WMR38 | 24 | 481 | 7 | 36 | 2 | 3 | <0 01 | 017 | 001 |
| WMR39 | 14 | 138 | 3 | 5 | 2 | 2 | $<001$ | 011 | 001 |
| WMR40A | 7 | 81 | 2 | 3 | 1 | 1 | <0 01 | 007 | 001 |
| WMR40B | 27 | 50 | 8 | 437 | 3 | 1 | $<001$ | 02 | 001 |
| WMR40C | 7 | 245 | 9 | 5 | 4 | 2 | $<001$ | 021 | 001 |
| WMR40D | 54 | 289 | 4 | 27 | 3 | 10 | <0.01 | 014 | 002 |
| WMR41 | 38 | 546 | 9 | 53 | 3 | 2 | <0 01 | 028 | 002 |
| WMR42 | 10 | 752 | 11 | 28 | 10 | 2 | $<001$ | 016 | 002 |

Northern Analytical Laboratones
Project: WO\#00075b

| Sample Name | Fe | Mg | K | Na | P |
| :--- | ---: | ---: | ---: | ---: | ---: |
| WMR 3 | \% | $\%$ | $\%$ | $\%$ | $\%$ |
| WMR 5 | 0.95 | 0.01 | 0.01 | 0.01 | 0.01 |
| WM | 2 | 0.03 | 0.03 | 0.01 | 0.05 |
| WMR 6 | 2.38 | 0.01 | 0.04 | 0.01 | 0.06 |
| WMR 7 | 18 | 0.01 | 005 | 0.01 | 0.02 |
| WMR 8 | 8.48 | $<0.01$ | 0.05 | 0.01 | 0.03 |
| WMR 9 | 8.81 | 0.03 | 0.06 | 0.01 | 0.25 |
| WMR10 | 148 | 0.01 | 0.01 | 001 | 0.01 |
| WMR11A | 12.29 | 0.02 | 0.03 | 0.01 | 007 |
| WMR11B | 11.25 | 0.02 | 0.06 | 0.01 | 0.28 |
| WMR12A | 0.49 | $<0.01$ | 0.01 | 0.01 | 0.01 |
| WMR12B | 0.36 | $<0.01$ | $<0.01$ | 0.01 | 0.01 |
| WMR13 | 9.35 | 0.01 | 0.04 | 0.01 | 0.03 |
| WMR14 | 4.3 | 0.02 | 0.07 | 001 | 0.03 |
| WMR15 | 1.16 | 0.01 | 01 | 001 | $<0.01$ |
| WMR16 | 0.74 | 0.12 | 0.03 | 004 | 0.01 |
| WMR17 | 0.49 | 0.03 | 0.01 | 003 | $<0.01$ |
| WMR18 | 0.67 | 0.01 | 0.04 | 001 | 0.16 |
| WMR19 | 4.99 | 0.01 | 0.06 | 001 | 0.04 |
| WMR20 | 3.76 | 0.01 | 0.02 | 001 | 003 |
| WMR21 | 0.39 | 0.03 | 0.05 | 0.03 | 0.21 |
| WMR22 | 9.61 | 0.01 | 0.03 | 0.01 | 003 |
| WMR24 | 0.28 | 0.01 | 001 | 0.01 | $<001$ |
| WMR25 | 5.12 | 0.01 | 0.03 | 0.01 | 0.04 |
| WMR26 | 2.22 | 0.04 | 0.19 | 002 | 0.06 |
| WMR27 | 5.32 | 0.01 | 0.02 | 0.01 | 001 |
| WMR28 | 036 | $<0.01$ | 0.04 | 001 | $<001$ |
| WMR29 | 026 | $<001$ | 001 | 001 | $<0.01$ |
| WMR30A | 037 | 0.01 | 0.02 | 001 | 0.08 |
| WMR30B | 069 | 001 | 0.01 | 001 | 004 |
| WMR30C | 061 | 001 | 0.01 | 001 | 003 |
| WMR31 | 075 | 0.01 | 0.04 | 0.01 | 001 |
| WMR32 | 15 | 0.01 | 002 | 0.01 | 003 |
| WMR33 | 092 | 001 | 002 | 001 | 001 |
| WMR34 | 327 | 0.01 | 002 | 001 | 003 |
| WMR35 | 3.13 | 0.03 | 0.07 | 001 | 0.02 |
| WMR36 | 442 | 0.01 | 0.04 | 001 | 0.14 |
| WMR37 | 0.85 | 001 | 004 | 001 | 0.02 |
| WMR38 | 1.84 | 001 | 0.04 | 001 | 001 |
| WMR39 | 123 | $<0.01$ | 001 | 001 | 001 |
| WMR40A | 0.93 | 0.01 | 0.03 | 0.01 | 002 |
| WMR40B | 1.02 | 0.01 | 004 | 0.01 | 008 |
| WMR40C | 0.7 | 0.01 | 0.05 | 001 | $<001$ |
| WMR40D | 492 | 0.01 | 0.04 | 001 | 003 |
| WMR41 | 441 | 0.02 | 01 | 001 | 008 |
| WMR42 | 1.15 | 0.01 | 003 | 001 | 001 |
|  |  |  |  |  |  |

Northern Analytical Laboratones
Project: WO\#00075b

| Sample Name | SampleType | $\mathrm{Ag}$ ppm | $\begin{array}{r} \mathrm{Cu} \\ \mathrm{ppm} \end{array}$ | $\begin{array}{r} \text { Pb } \\ \mathrm{ppm} \end{array}$ | $\begin{array}{r} \mathrm{Zn} \\ \text { ppm } \end{array}$ | $\begin{array}{r} \text { As } \\ \text { ppm } \end{array}$ | $\begin{array}{r} \text { Sb } \\ \text { ppm } \end{array}$ | Hg ppm |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| WMR43 | Pulp | <0.1 | 47 | 214 | 464 | 1188 | 70 | $<3$ |
| WMR44 | Pulp | 11 | 12 | 45 | 7 | 15 | 8 | $<3$ |
| WMR45 | Pulp | $<01$ | 50 | 18 | 165 | 35 | 10 | <3 |
| Minumum detection |  | 01 | 1 | 2 | 1 | 5 | 5 | 3 |
| Maximum detection |  | 100 | 20000 | 20000 | 20000 | 10000 | 1000 | 10000 |
| Method |  | ICP | ICP | ICP | ICP | ICP | ICP | ICP |

Northern Analytical Laboratones Project: WO\#00075b

| Sample Name | Mo ppm | $\begin{array}{r} \mathrm{Tl} \\ \mathrm{ppm} \end{array}$ | $\begin{array}{r} \mathrm{Bi} \\ \mathrm{ppm} \end{array}$ | $\begin{aligned} & \text { Cd } \\ & \text { ppm } \end{aligned}$ | $\begin{array}{r} \text { Co } \\ \text { ppm } \end{array}$ | $\begin{array}{r} \mathrm{Ni} \\ \mathrm{ppm} \end{array}$ | $\begin{array}{r} \mathrm{Ba} \\ \mathrm{ppm} \end{array}$ | $\begin{array}{r} \text { W } \\ \text { ppm } \end{array}$ | $\begin{array}{r} \mathrm{Cr} \\ \mathrm{ppm} \end{array}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| WMR43 | 1 | <10 | <2 | 13 | 13 | 405 | 607 | < | 208 |
| WMR44 | 5 | <10 | $<2$ | 0.4 | 1 | 5 | 79 | $<5$ | 117 |
| WMR45 | 3 | $<10$ | <2 | 1 | 12 | 35 | 52 | <5 | 106 |
| Minimum detection | 1 | 10 | 2 | 0.1 | 1 | 1 | 2 | 5 | 1 |
| Maxımum detection | 1000 | 1000 | 10000 | 100 | 10000 | 10000 | 10000 | 1000 | 10000 |
| Method | ICP | ICP | ICP | ICP | ICP | ICP | ICP | ICP | ICP |

Northern Analytical Laboratones
Project: WO\#00075b

| Sample Name | V | Mn | La | Sr | Zr | Sc | Ti | AI | Ca |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| WMR43 | ppm | ppm | ppm | ppm | ppm | ppm | $\%$ | $\%$ | $\%$ |
| WMR44 | 12 | 219 | 5 | 8 | 3 | 3 | $<0.01$ | 012 | 0.03 |
| WMR45 | 5 | 52 | 7 | 9 | 2 | $<1$ | $<0.01$ | 0.11 | 0.01 |
|  | 33 | 396 | 8 | 19 | 3 | 4 | $<0.01$ | 0.24 | 002 |
| Minimum detection |  |  |  |  |  |  |  |  |  |
| Maxımum detection | 2 | 1 | 2 | 1 | 1 | 1 | 001 | 0.01 | 001 |
| Method | 10000 | 10000 | 10000 | 10000 | 10000 | 10000 | 1 | 10 | 10 |
|  | ICP | ICP | ICP | ICP | ICP | ICP | ICP | ICP | ICP |

Northern Analytical Laboratones

## Project WO\#00075b

| Sample Name | Fe | Mg | K | Na | P |
| :--- | ---: | ---: | ---: | ---: | ---: |
|  | $\%$ | $\%$ | $\%$ | $\%$ | $\%$ |
| WMR43 | 2.11 | 0.01 | 0.01 | 0.01 | 0.01 |
| WMR44 | 0.62 | $<0.01$ | 0.02 | 0.01 | 0.01 |
| WMR45 | 2.67 | 0.02 | 0.03 | 0.01 | 003 |
|  |  |  |  |  |  |
| Minimum detection | 001 | 0.01 | 0.01 | 0.01 | 0.01 |
| Maximum detection | 10 | 10 | 10 | 5 | 5 |
| Method | ICP | ICP | ICP | ICP | ICP |

## APPENDIX 4

## Rock Sample Descriptions

| Sample Number | Descrijution |
| :---: | :---: |
| WMR 1 | Bedrock, black homblende schist, not tested |
| WMR | Bedrock, brown schist, not tested |
| WMR 3 | Mesothermal quartz + black Mn? , minor limonite on fractures |
| WMR 4 | Bedrock, brownish chunks of clay alteration?, not tested |
| WMR 5 | Quartzite limonite |
| WMR 6 | Silicified sericite schist (weathered) |
| WMR 7 | Quartz - reddish hematite areas |
| WMR 8 | Schist broken up + limonite in fractures |
| WMR 9 | Mn oxide, fractures, rough edged |
| WMR 10 | Quartz fractured + limonite along fractures |
| WMR 11A \& B | Grey quartz fractured + limonite |
| WMR 12A \& B | Quartz + few black specs |
| WMR 13 | Mn stained volcanic, flow breccia? |
| WMR 14 | Schist broken up and silicified |
| WMR 15 | Quartzite brecciated with epithermal quartz? |
| WMR 16 | Quartz + feldspar |
| WMR 17 | Quartz + feldspar |
| WMR 18 | Soft grey rock, non-calcareous |
| WMR 19 | Weathered twisted schist and a bit of silicification |
| WMR 20 | Mn oxidized silicified schist |
| WMR 21 | Quartz red-iron stain |
| WMR 22 | Limonite Mn silicified schist |
| WMR 23 | Schist |
| WMR 24 | Bedrock, bull quartz with reddish tinge |
| WMR 25 | Quartz brecciated + limonite |
| WMR 26 | Weak As Py, multi small quartz stringers |

Rock Sample Descriptions (con't)

| Sample Number | Descrintion |
| :--- | :--- |
| WMR 27 | Mn coating, silicified limonite |
| WMR 28 | Quartz, some limonite + feldspars |
| WMR 29 | Quartz limonite on fractures |
| WMR 30A, B, C | Black schist brecciated silicified |
| WMR 31 | Quartz vugs + fractures, limonite and Mn |
| WMR 32 | Quartz limonite on fractures + Mn inside + coating on outside |
| WMR 33 | Volcanic chunks? In silicified rock |
| WMR 34 | Quartzite and cross cutting quartz stringers |
| WMR 35 | Limonite stained rock? |
| WMR 36 | Grey quartz Mn coating with fragment of bedrock |
| WMR 37 | Schist with cross cutting quartz |
| WMR 38 | Schist brecciated (grey quartz silicified?) |
| WMR 39 | Quartzite with quartz stringers + few sulphides |
| WMR 40A | Schist quartz stringers along and across foliation, vugs and <br> sulphides |
| WMR 40B | Silicified schist |
| WMR 40C | Schist, Mn coating, heavily silicified |
| WMR 40D | Schist silicified |
| WMR 41 | Quartz stringers (grey and white), fractures, limonite + sulphides |
| WMR 42 | Limonitic breccia |
| WMR 43 | Schist oxidized silicified limonitic + clay alteration? |
| WMR 44 | Quartzite with fine quartz + limonite, alteration breccia |
| WMR 45 | Schist, oxidized and silicified |
|  |  |

## APPENDIX 5

Silt Sample Geochemistry - Assay Results - Au (-80+200 mesh)

105 Copper Road
Whitehorse, Yukon
Y1A-2Z7
Ph: [867] 668-4968
Fax: (867) 668-4890
E-mal: NAL@hypertech.yk.ca

19/10/2000 Certificate of Analysis
\# of pages (not including this page): 1
Peter Ross


Justin Lemphers (Senior Assayer)

Date Received: 02/10/2000

| SAMPLE PREPARATION: |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Code | \# of Samples | Type | Preparation Descnption (All wet samples are dried first.) |  |  |  |
| ss | 30 | sediment | Screen -80 mesh + | 00 mesh, screen -200 | mesh |  |
| ANALYTICAL METHODS SUMMARY: |  |  |  |  |  |  |
| Symbol | Units | Element | Method (A:assay) <br> (G:geochem) | Fusion/Digestion | Lower Lımit | Upper Limit |
| Au 30g | ppb | Gold | G: FA/AAS | $30 \mathrm{~g} \mathrm{FA} /$ aqua regia | 5 | 7000 |

AAS = atomic absorption spectrophotometry
FA = fire assay

$$
1000 \mathrm{ppb}=1 \mathrm{ppm}=1 \mathrm{~g} / \mathrm{mt}=0.0001 \%=0.0291660 \mathrm{z} / \text { ton }
$$



| Wo 00075 C <br> Northern Analytical Laboratones |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| ELEMENT | Mo | Cu | Pb | Zn | Ag | Ni | Co | Mn | Fe | As | U |
| SAMPLES | ppm | ppm | ppm | ppm | ppb | ppm | ppm | ppm | \% | ppm | ppm |
| WMS $1-80+200$ | 0.89 | 1162 | 680 | 56.8 | 92 | 141 | 8.1 | 386 | 179 | 8.0 | 1.3 |
| WMS $2-80+200$ | 126 | 12.19 | 795 | 543 | 123 | 137 | 5.6 | 174 | 180 | 110 | 07 |
| WMS $3-80+200$ | 124 | 16.77 | 8.06 | 75.0 | 170 | 32.2 | 96 | 464 | 203 | 87 | 70 |
| WMS $4-80+200$ | 063 | 1005 | 5.65 | 61.4 | 74 | 219 | 80 | 384 | 183 | 8.6 | 12 |
|  | ${ }^{\text {a }}$ | 1267 | 6.32 | 55.2 | 77 | 16.0 | 70 | 290 | 1.66 | 7.4 | 59 |
|  | ${ }^{4}$ | 12.39 | 6.53 | 52.6 | 103 | 139 | 50 | 187 | 165 | 12.4 | 0.7 |
| 93M ${ }^{\text {a }}$ | \% ${ }^{4}$ |  | 785 | 564 | 88 | 16.3 | 82 | 515 | 1.87 | 9.3 | 0.9 |
|  | - ${ }^{\text {d }}$ | W ${ }^{\text {a }}$, 28 | 631 | 580 | 88 | 177 | 74 | 282 | 155 | 90 | 2.2 |
|  |  | $6{ }^{4} 108$ | 6.43 | 561 | 70 | 18.2 | 78 | 345 | 180 | 6.5 | 12 |
| WMS 10-80+200 | 055 | 1073 | 629 | 43.6 | 50 | 11.8 | 6.9 | 228 | 1.60 | 47 | 06 |
| WMS $11-80+200$ | 048 | 1184 | 712 | 52.0 | 57 | 154 | 71 | 295 | 171 | 50 | 1.5 |
| WMS $12-80+200$ | 158 | 1887 | 1006 | 77.3 | 162 | 20.7 | 89 | 385 | 187 | 118 | 6.2 |
| WMS $13-80+200$ | 088 | 15.76 | 760 | 649 | 129 | 273 | 104 | 572 | 178 | 83 | 43 |
| WMS 14-80+200 | 115 | 14.89 | 511 | 581 | 136 | 142 | 68 | 202 | 182 | 75 | 07 |
| WMS $15-80+200$ | 059 | 15.75 | 655 | 598 | 84 | 168 | 93 | 491 | 188 | 53 | 2.6 |
| WMS $16-80+200$ | 075 | 1487 | 843 | 632 | 87 | 180 | 88 | 405 | 178 | 8.0 | 41 |
| WMS $17-80+200$ | 062 | 1183 | 693 | 489 | 62 | 175 | 6.8 | 246 | 2.03 | 5.5 | 12 |
| WMS $18-80+200$ | 0.33 | 12.07 | 407 | 409 | 45 | 112 | 61 | 291 | 148 | 2.7 | 08 |
| WMS $19-80+200$ | 0.57 | 11.34 | 615 | 55.3 | 71 | 118 | 56 | 286 | 144 | 10.1 | 14 |
| WMS $20-80+200$ | 062 | 1710 | 6.73 | 650 | 84 | 196 | 95 | 512 | 2.00 | 62 | 3.9 |
| WMS $21-80+200$ | 042 | 1709 | 467 | 471 | 48 | 109 | 79 | 685 | 170 | 30 | 08 |
| WMS $22-80+200$ | 037 | 917 | 434 | 42.6 | 63 | 155 | 60 | 202 | 137 | 22 | 06 |
| WMS $23-80+200$ | 073 | 1428 | 3.64 | 404 | 48 | 72 | 63 | 258 | 167 | 2.2 | 2.1 |
| WMS $24-80+200$ | 0.56 | 1839 | 565 | 533 | 78 | 136 | 83 | 394 | 2.02 | 43 | 16 |
| RE WMS $24-80+200$ | 059 | 1861 | 564 | 517 | 79 | 144 | 87 | 389 | 203 | 41 | 17 |
| WMS $25-80+200$ | 039 | 978 | 498 | 384 | 41 | 95 | 51 | 200 | 136 | 33 | 05 |
| WMS $26-80+200$ | 077 | 1295 | 798 | 56.6 | 84 | 167 | 77 | 275 | 165 | 57 | 23 |
| WMS $27-80+200$ | 079 | 1326 | 925 | 610 | 90 | 167 | 8.2 | 295 | 170 | 60 | 29 |
| WMS $28-80+200$ | 094 | 1382 | 1057 | 68.4 | 93 | 198 | 99 | 419 | 190 | 65 | 23 |
| WMS $29-80+200$ | 064 | 1428 | 703 | 538 | 70 | 171 | 71 | 244 | 179 | 66 | 07 |
| WMS $30-80+200$ | 036 | 1009 | 518 | 494 | 86 | 185 | 69 | 255 | 147 | 2.4 | 09 |
| STANDARD DS2 | 1444 | 122.30 | 32.54 | 1538 | 262 | 339 | 114 | 788 | 298 | 545 | 185 |


| Northern Analytical ELEMENT | Mg | Ba | Tı | B | Al | Na | K | W | Sc | TI | S |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| SAMPLES | \% | ppm | \% | ppm | \% | \% | \% | ppm | ppm | ppm | \% |
| WMS 1 -80+200 | 0.38 | 3178 | 0048 | 1 | 090 | 0007 | 0.06 | 03 | 1.9 | 009 | 002 |
| WMS $2-80+200$ | 038 | 2115 | 0046 | 1 | 097 | 0.005 | 0.07 | $<2$ | 18 | 013 | 001 |
| WMS $3-80+200$ | 0.48 | 2792 | 0050 | 1 | 091 | 0.005 | 009 | $<.2$ | 2.4 | 016 | 0.01 |
| WMS 4 -80+200 | 054 | 2614 | 0060 | $<1$ | 098 | 0006 | 017 | 03 | 2.2 | 015 | 001 |
| WMS 5 -80+200 | 0.38 | 2668 | 0049 | <1 | 085 | 0008 | 006 | 07 | 2.0 | 007 | 001 |
|  | 030 | 1777 | 0039 | 1 | 076 | 0005 | 006 | < 2 | 17 | 009 | < 01 |
| , ${ }^{4} \mathbf{4}$ WMS. $7.80+200$ | 0.40 | 2269 | 0048 | 1 | 087 | 0010 | 0.07 | 03 | 21 | 009 | 001 |
|  | 0.39 | 2017 | 0047 | 1 | 079 | 0007 | 010 | 03 | 2.2 | 012 | 001 |
|  | 052 | 2677 | 0.054 | <1 | 092 | 0010 | 010 | 06 | 18 | 007 | 002 |
| WMS $10-80+200$ | 048 | 1232 | 0080 | $<1$ | 107 | 0006 | 016 | 0.3 | 2.0 | 011 | 0.01 |
| WMS $11-80+200$ | 045 | 2219 | 0065 | 1 | 099 | 0008 | 014 | 06 | 2.1 | 010 | 0.02 |
| WMS $12-80+200$ | 036 | 2194 | 0.050 | $<1$ | 091 | 0006 | 010 | 07 | 2.1 | 016 | 0.02 |
| WMS $13-80+200$ | 046 | 2652 | 0050 | 1 | 085 | 0005 | 009 | 0.2 | 22 | 015 | 0.02 |
| WMS $14-80+200$ | 059 | 2191 | 0090 | 1 | 1.07 | 0007 | 020 | $<2$ | 21 | 018 | 002 |
| WMS $15-80+200$ | 052 | 3413 | 0058 | 1 | 099 | 0008 | 009 | 05 | 23 | 007 | 002 |
| WMS $16-80+200$ | 045 | 3000 | 0056 | 1 | 092 | 0007 | 011 | 17 | 2.1 | 010 | 003 |
| WMS $17-80+200$ | 039 | 4091 | 0060 | 1 | 081 | 0008 | 006 | 63 | 17 | 005 | 002 |
| WMS $18-80+200$ | 0.48 | 236.8 | 0063 | $<1$ | 086 | 0007 | 013 | 09 | 20 | 007 | 001 |
| WMS $19-80+200$ | 031 | 2499 | 0.040 | 1 | 069 | 0005 | 007 | 04 | 16 | 008 | 002 |
| WMS $20-80+200$ | 057 | 3228 | 0063 | 1 | 105 | 0008 | 013 | 05 | 2.4 | 011 | 0.03 |
| WMS $21-80+200$ | 052 | 2620 | 0067 | 1 | 090 | 0007 | 016 | 02 | 26 | 009 | 003 |
| WMS $22-80+200$ | 053 | 2444 | 0070 | < 1 | 094 | 0006 | 014 | 35 | 17 | 008 | 001 |
| WMS $23-80+200$ | 057 | 273.3 | 0072 | < 1 | 090 | 0006 | 018 | 02 | 24 | 0.09 | 002 |
| WMS $24-80+200$ | 061 | 3457 | 0070 | 1 | 111 | 0009 | 014 | 04 | 28 | 009 | 003 |
| RE WMS $24-80+200$ | 061 | 3451 | 0071 | 1 | 111 | 0009 | 015 | 0.5 | 27 | 009 | 003 |
| WMS $25-80+200$ | 036 | 2081 | 0050 | 1 | 073 | 0007 | 006 | 03 | 18 | 006 | $<01$ |
| WMS $26-80+200$ | 042 | 2621 | 0060 | 1 | 088 | 0006 | 010 | 14 | 19 | 009 | 002 |
| WMS $27-80+200$ | 043 | 2714 | 0062 | 1 | 092 | 0007 | 010 | 15 | 19 | 010 | 001 |
| WMS $28-80+200$ | 048 | 2743 | 0074 | 1 | 099 | 0006 | 015 | 18 | 20 | 013 | 002 |
| WMS $29-80+200$ | 043 | 3091 | 0051 | 1 | 088 | 0008 | 006 | 0.9 | 18 | 005 | 001 |
| WMS $30-80+200$ | 059 | 2816 | 0076 | < 1 | 106 | 0006 | 016 | 19 | 19 | 009 | 001 |
| STANDARD DS2 | 058 | 1454 | 0089 | 2 | 165 | 0028 | 015 | 69 | 28 | 181 | 002 |


| Northem Analytical |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| ELEMENT | Hg | Se | - |  |  |
| SAMPLES | ppb | ppm | ppm- | ppm |  |
| WMS $1-80+200$ | 58 | 0.3 | 0.02 | 3.4 | 30 |
| WMS 2 -80+200 | 80 | 0.3 | 0.03 | 41 | 30 |
| WMS $3-80+200$ | 44 | 0.5 | 0.02 | 3.5 | 30 |
| WMS 4 -80+200 | 42 | 0.2 | <. 02 | 3.8 | 30 |
| WMS 5 -80+200 | 42 | 0.4 | 0.02 | 3.0 | 30 |
| WMS 6 -80+200 | 29 | 0.2 | 0.02 | 3.0 | 30 |
| WMS 7 -80+200 | 48 | 0.3 | 0.02 | 3.0 | 30 |
| WMS $8-80+200$ | 30 | 0.4 | < 02 | 3.0 | 30 |
| WMS $9-80+200$ | 32 | 0.2 | 0.02 | 3.2 | 30 |
| WMS $10-80+200$ | 13 | 0.1 | < 02. | 4.3 | 30 |
| WMS $11-80+200$ | 43 | 0.1 | < . 02 | 3.7 | 30 |
| WMS 12-80+200 | 89 | 06 | 0.03 | 34 | 30 |
| WMS 13-80+200 | 55. | 0.3 | < . 02 | 3.3 | 30 |
| WMS $14-80+200$ | 26 | 0.3 | 0.02 | 4.7 | 30 |
| WMS $15-80+200$ | 56 | 02 | < . 02 | 3.5 | 30 |
| WMS $16-80+200$ | 297 | 0.6 | 002 | 3.2 | 30 |
| WMS 17-80+200 | 245 | 0.2 | < . 02 | 3.1 | 30 |
| WMS $18-80+200$ | 33 | <. 1 | 0.02 | 32 | 30 |
| WMS 19-80+200 | 61 | 0.4 | <. 02 | 2.6 | 30 |
| WMS $20-80+200$ | 65. | 0.4 | < . 02 | 39 | 30 |
| WMS $21-80+200$ | 41 | 02 | < 02 | 33 | 30 |
| WMS $22-80+200$ | 395 | 0.1 | < 02 | 3.5 | 30 |
| WMS $23-80+200$ | 17 | 0.1 | 0.02 | 3.6 | 30 |
| WMS $24-80+200$ | 41 | 0.3 | 0.03 | 42 | 30 |
| RE WMS 24-80+200 | 97 | 0.2 | < 02 | 43 | 30 |
| WMS $25-80+200$ | 25 | 0.2 | 002 | 2.9 | 30 |
| WMS 26 -80+200 | 70 | 04 | 002 | 31 | 30 |
| WMS $27-80+200$ | 141 | 06 | <. 02 | 3.3 | 30 |
| WMS $28-80+200$ | 71 | 06 | 003 | 37 | 30 |
| WMS $29-80+200$ | 87 | 03 | 002 | 32 | 30 |
| WMS 30-80+200 | 183 | 03 | < 02 | 39 | 30 |
| STANDARD DS2 | 226 | 2.2 | 191 | 61 | 30 |

## APPENDIX 6

Silt Sample Geochemistry - Assay Results - Au (-200 mesh)
105.Copper Road

Whitehorse, Yukon
Y1A $2 Z 7$
Ph: (867) 668-4968
Fax: (867) 668-4890
E-mal: NAL@hypertech.yk.ca

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\# of pages (not includıng this page): 1
Peter Ross


Date Received: 02/10/2000

| SAMPLE PREPARATION: |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Code | \# of Samples | Type | Preparation Description (All wet samples are dried first.) |  |  |  |
| ss | 30 | sediment | Screen -80 mesh + | 0 mesh, screen -20 | mesh |  |
| ANALYTICAL METHODS SUMMARY: |  |  |  |  |  |  |
| Symbol | Units | Element | Method (A:assay) (G:geochem) | Fusion/Digestion | Lower | Upper |
| Au 30g | ppb | Gold | G: FA/AAS | $30 \mathrm{~g} \mathrm{FA} /$ aqua regıa | 5 | 7000 |

AAS = atomic absorption spectrophotometry FA = fire assay

$$
1000 \mathrm{ppb}=1 \mathrm{ppm}=1 \mathrm{~g} / \mathrm{mt}=0.0001 \%=0.029166 \mathrm{oz} / \text { ton }
$$



Certificate of Analysis
Page 1

WO\# 00075c
Certified by $\qquad$

|  | Sample \# | $\begin{array}{r} \mathrm{Au} 30 \mathrm{~g} \\ \mathrm{ppb} \end{array}$ |
| :---: | :---: | :---: |
| ss | WMS1-200 | 23 |
| ss | WMS2-200 | 14 |
| ss | WMS3-200 | 5 |
| ss | WMS4-200 | 14 |
| ss | WMS5-200 | 53 |
| ss | WMS6-200 | 13 |
| ss | WMS7-200 | 20 |
| ss | WMS8-200 | 21 |
| ss | WMS9-200 | 22 |
| ss | WMS10-200 | 101 |
| ss | WMS11-200 | 19 |
| ss | WMS12-200 | 118 |
| ss | WMS13-200 | 14 |
| ss | WMS14-200 | 9 |
| ss | WMS15-200 | <5 |
| ss | WMS16-200 | 22 |
| ss | WMS17-200 | 104 |
| ss | WMS18-200 | 19 |
| ss | WMS19-200 | 33 |
| ss | WMS20-200 | 7 |
| ss | WMS21-200 | 8 |
| ss | WMS22-200 | 30 |
| ss | WMS23-200 | 19 |
| ss | WMS24-200 | 21 |
| ss | WMS25-200 | 15 |
| Ss | WMS26-200 | 6 |
| ss | WMS27-200 | 60 |
| ss | WMS28-200 | 46 |
| ss | WMS29-200 | 159 |
| ss | WMS30-200 | 93 |

## APPENDLX 7

Pan Concentrate Geochemistry - Assay Results

105 Copper Road Whitehorse, Yukon

Y1A $2 Z 7$
Ph: (867) 668-4968
Fax: (867) 668-4890
E-mail: NAL@hypertech.yk.ca

19/10/2000

Peter Ross

Certificate of Analysis
\# of pages (not including this page): N/A


Justın Lemphers (Senior Assayer)

Date Received: 02/10/2000

| SAMPLEPREPARATION: |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Code | \# of Samples | Type concentrate | Preparation Description (All wet samples are dried first.) |  |  |  |
| c | 29 |  | Riffle split 200g, pulverize to -100 mesh (if necessary) |  |  |  |
| ANALYTICAL METHODS SUMMARY: |  |  |  |  |  |  |
| Symbol | Units | Element | Method (A:assay) <br> (G:geochem) | Fusion/Digestion | Lower Limit | Upper Limit |

AAS = atomic absorption spectrophotometry
FA = fire assay

$$
1000 \mathrm{ppb}=1 \mathrm{ppm}=1 \mathrm{~g} / \mathrm{mt}=0.0001 \%=0.029166 \mathrm{z} / \text { ton }
$$

| Wo 0007450 Northem Analytical Laboratones |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| ELEMENT | Mo | Cu | Pb | Zn | Ag | N | Co | Mn | Fe | As | U. | A |
| SAMPLES | ppm | ppm | ppm | ppm | ppb | ppm | ppm | ppm | \% | ppm | ppm | ppb |
| WMS PAN 1 | 0.75 | 6.50 | 4.67 | 22.3 | 54 | 90 | 3.1 | 129 | 0.89 | 48 | 07 | 26. |
| PAN 2 WM | 1.38 | 9.49 | 5.76 | 31.1 | 48 | 88 | 32 | 155 | 1.33 | 11.2 | 0.6 | 21.3 |
| PAN 3 WM | 1.02 | 7.91 | 3.94 | 36.9 | 46 | 21.1 | 58 | 321 | 1.50 | 8.2 | 1.2 | 6.3 |
| PAN 4 WM | 0.59 | 6.21 | 3.91 | 26.3 | 35 | 12.3 | 40 | 178 | 1.05 | 6.8 | 0.6 | 2.2 |
| PAN 5 WM | 0.97 | 876 | 421 | 316 | 46 | 12.1 | 42 | 207 | 1.11 | 7.3 | 1.9 | 25. |
| PAN 6 WM | 0.86 | 5.79 | 3.51 | 21.2 | 40 | 68 | 3.1 | 173 | 0.92 | 58 | 0.5 | 49 |
| PAN 7 WM | 0.59 | 8.02 | 448 | 275 | 42 | 8.7 | 40 | 180 | 1.10 | 7.5 | 0.6 | 11. |
| PAN 8 WM | 085 | 971 | 475 | 35.7 | 40 | 117 | 6.1 | 304 | 137 | 11.1 | 11 | 2.5 |
| PAN 9 WM | 0.49 | 846 | 455 | 27.9 | 33 | 12.7 | 67 | 302 | 1.50 | 5.6 | 10 | 18.5 |
| PAN 10 WM | 044 | 9.03 | 4.35 | 24.0 | 19 | 8.6 | 5.2 | 378 | 1.38 | 2.5 | 0.7 | 7.1 |
| PAN 11 WM | 045 | 654 | 3.95 | 23.2 | 23 | 11.6 | 55 | 270 | 113 | 34 | 0.8 | 14 |
| PAN 12 WM | 2.13 | 21.01 | 8.08 | 66.0 | 89 | 18.8 | 98 | 624 | 211 | 243 | 2.4 | 48 |
| PAN 13 WM | 0.68 | 747 | 5.05 | 26.4 | 33 | 8.4 | 38 | 214 | 0.97 | 81 | 1.0 | 0 |
| PAN 14 WM | 1.01 | 9.84 | 3.42 | 29.1 | 44 | 93 | 51 | 213 | 132 | 78 | 05 | 44 |
| PAN 15 WM | 0.54 | 8.09 | 3.64 | 22.2 | 40 | 10.8 | 83 | 532 | 2.09 | 46 | 0.7 | 22.3 |
| PAN 16 WM | 1.10 | 11.47 | 7.43 | 38.7 | 48 | 171 | 87 | 401 | 187 | 130 | 1.7 | 4.4 |
| PAN 17 WM | 0.47 | 5.60 | 433 | 23.4 | 27 | 134 | 51 | 172 | 150 | 33 | 12 | 20.2 |
| PAN 18 | 032 | 655 | 2.71 | 202 | 23 | 74 | 49 | 221 | 129 | 16 | 05 | 98 |
| PAN 19 WM | 0.74 | 756 | 608 | 39.0 | 52 | 101 | 40 | 240 | 145 | 16.6 | 11 | 41.2 |
| PAN 21 WM | 0.34 | 905 | 4.01 | 21.9 | 26 | 8.8 | 6.4 | 442 | 2.90 | 16 | 0.5 | 5.7 |
| PAN 22 WM | 036 | 5.73 | 3.11 | 192 | 28 | 114 | 46 | 164 | 1.27 | 12 | 0.5 | 12.1 |
| PAN 23 WM | 040 | 605 | 2.50 | 17.5 | 19 | 34 | 31 | 185 | 111 | 09 | 11 | 2.6 |
| PAN 24 WM | 036 | 8.10 | 2.61 | 23.3 | 19 | 72 | 47 | 172 | 147 | 2.4 | 05 | 14 |
| PAN 25 WM | 0.29 | 486 | 3.04 | 15.6 | 16 | 46 | 37 | 177 | 124 | 13 | 0.2 | 0.7 |
| REPAN 25 WM | 028 | 5.11 | 333 | 15.6 | 19 | 5.2 | 38 | 181 | 123 | 14 | 0.2 | 3.9 |
| PAN 26 WM | 105 | 1149 | 7.83 | 38.1 | 44 | 15.1 | 88 | 333 | 1.89 | 114 | 13 | 15 |
| PAN 27 WM | 0.77 | 956 | 5.97 | 32.8 | 47 | 161 | 81 | 273 | 171 | 75 | 1.1 | 2. |
| PAN 28 WM | 088 | 1039 | 851 | 38.0 | 42 | 22.0 | 99 | 376 | 198 | 78 | 11 | 04 |
| PAN 29 WM | 047 | 547 | 419 | 20.2 | 29 | 107 | 51 | 143 | 142 | 3.2 | 0.8 | 20.0 |
| PAN 30 Wm | 036 | 930 | 2.84 | 197 | 28 | 94 | 71 | 188 | 128 | 15 | 0.4 | 17 |
| Standafdose | 13.67 | 12842 | 33.75 | 1517 | 259 | 345 | 125 | 797 | 3.02 | 58.7 | 19.6 | 188.9 |

Northern A

| EMENT | $\pi$ | B | Al | Na | K | W | Sc | 7 | S | Hg | Se: | Te |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| SAMPLES | \% | ppm | \% | \% | \% | ppm | ppm | ppm | \% | ppb | ppm | ppm |
| WMSPAN 1 | 0.034 | 1 | 0.39 | 0008 | 0.07 | 0.7 | 1.0 | 0.04 | 0.02 | 21 | <. 1 | < 02 |
| PAN 2 WM | 0.044 | 1 | 047 | 0008 | 008 | 0.6 | 1.3 | 0.05 | 0.01 | 21 | 0.2 | 0.02 |
| PAN 3 WM | 0.043 | 1 | 0.47 | 0011 | 0.06 | 0.3 | 1.6 | 0.05 | <. 01 | 8 | 0.4 | 002 |
| PAN 4 WM | 0.053 | 1 | 0.58 | 0.015 | 010 | 11 | 1.9 | 0.06 | 0.01 | 18 | 0.2 | < . 02 |
| PAN 5 WM | 0.055 | 1 | 0.47 | 0.010 | 007 | 13 | 14 | 0.05 | < . 01 | 30 | 0.5 | < 02 |
| PAN 6 WM | 0.062 | 1 | 0.49 | 0.017 | 0.05 | 0.7 | 1.7 | 0.03 | 0.01 | 13 | 0.2 | < 02 |
| PAN 7 WM | 0050 | 1 | 0.49 | 0.011 | 0.07 | 10 | 14 | 0.05 | < . 01 | 16 | 0.3 | 0.02 |
| PAN 8 WM | 0.064 | 1 | 0.61 | 0.018 | 0.07 | 14 | 2.2 | 0.06 | < . 01 | 20 | 0.4 | < 02 |
| PAN 9 WM | 0.076 | <1 | 0.65 | 0014 | 0.11 | 14.3 | 1.8 | 0.05 | 0.02 | 280 | 0.3 | 005 |
| PAN 10 WM | 0126 | <1 | 0.71 | 0.011 | 0.14 | 2.8 | 2.1 | 0.07 | < . 01 | 6 | 0.1 | < . 02 |
| PAN 11 WM | 0.065 | 1 | 0.61 | 0.013 | 0.12 | 1.9 | 1.7 | 0.05 | 0.01 | 27 | 0.1 | < 02 |
| PAN 12 WM | 0.042 | 1 | 062 | 0008 | 0.11 | 2.3 | 2.3 | 0.13 | 0.03 | 27 | 0.8 | 0.05 |
| PAN 13 WM | 0.044 | <1 | 0.44 | 0012 | 0.06 | 0.6 | 1.4 | 005 | 0.02 | 16 | 0.2 | 0.02 |
| PAN 14 WM | 0.075 | 1 | 067 | 0.021 | 0.09 | 1.0 | 2.4 | 006 | 001 | < 5 | 0.3 | < 02 |
| PAN 15 WM | 0.054 | <1 | 0.54 | 0.015 | 006 | 23.7 | 2.0 | 0.03 | 0.01 | 438 | 0.2 | 003 |
| PAN 16 WM | 0051 | 1 | 0.60 | 0.011 | 0.10 | 16.2 | 2.0 | 007 | 001 | 226 | 0.5 | 003 |
| PAN 17 WM | 0.066 | <1 | 0.48 | 0.010 | 0.06 | 9.5 | 1.4 | 0.02 | 0.03 | 611 | 0.2 | 002 |
| PAN 18 WM | 0061 | <1 | 0.57 | 0020 | 008 | 6.2 | 2.1 | 003 | $<.01$ | 116 | <. 1 | 0.02 |
| PAN 19 WM | 0.051 | 1 | 0.45 | 0.008 | 006 | 1.9 | 17 | 0.05 | 0.02 | 35 | 0.4 | < . 02 |
| PAN 21 WM | 0.079 | <1 | 0.55 | 0.021 | 006 | 2.6 | 2.5 | 0.02 | 0.03 | 70 | 0.1 | < . 02 |
| PAN 22 Wm | 0065 | <1 | 058 | 0.019 | 008 | 136.3 | 2.1 | 0.03 | 0.01 | 1659 | <. 1 | < 02 |
| PAN 23 WM | 0.052 | <1 | 050 | 0.019 | 009 | 11 | 1.8 | 0.03 | 0.01 | 13 | <. 1 | < . 02 |
| PAN 24 WM | 0.055 | <1 | 059 | 0.017 | 0.12 | 32 | 2.0 | 0.04 | 0.02 | 64 | 0.1 | < 02 |
| PAN 25 WM | 0.050 | <1 | 0.48 | 0019 | 005 | 1.4 | 1.8 | 0.02 | 0.02 | 16 | < . 1 | < . 02 |
| fe Pan 25 Wm | 0.051 | <1 | 0.47 | 0.018 | 0.05 | 14 | 1.8 | 0.02 | 0.02 | 15 | <. 1 | < . 02 |
| PAN 26 WM | 0047 | <1 | 0.53 | 0.009 | 0.08 | 16.0 | 2.1 | 005 | 003 | 133 | 0.2 | 0.05 |
| PAN 27 WM | 0054 | <1 | 055 | 0.014 | 008 | 17.9 | 19 | 004 | 001 | 173 | 03 | 0.03 |
| PAN 28 WM | 0059 | <1 | 062 | 0.010 | 010 | 31.8 | 2.3 | 0.06 | 003 | 159 | 03 | 003 |
| PAN 29 WM | 0071 | <1 | 0.47 | 0011 | 006 | 108 | 15 | 002 | < 01 | 1035 | <1 | < 02 |
| PAN 30 WM | 0054 | <1 | 053 | 0014 | 0.08 | 55.6 | 16 | 003 | 0.01 | 8885 | 02 | < . 02 |
| Standard dse | 0.090 | 1 | 65 | 0029 | 016 | 72 | 2.7 | 1.7 | 005 | 245 | 2.2 | 81 |


| Northem A |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| ELEMENT | Th | Sr | Cd | Sb | Bi | V | Ca | P | La | Cr | Mg | Ba |
| SAMPLES | ppm | ppm | ppm | ppm | ppm | ppm | \% | \% | ppm | ppm | \% | ppm |
| WMS PAN 1 | 4.4 | 12.8 | 0.08 | 0.71 | 0.06 | 18 | 021 | 0.048 | 11 | 72.9 | 0.14 | 162.9 |
| PAN 2 WM | 36 | 12.7 | 0.07 | 1.40 | 0.08 | 27 | 0.21 | 0.064 | 11 | 73.2 | 016 | 222.4 |
| PAN 3 WM | 36 | 9.2 | 0.17 | 0.79 | 0.07 | 27 | 026 | 0.050 | 8 | 164.1 | 0.25 | 128.9 |
| PAN 4 WM | 4.5 | 17.6 | 0.08 | 111 | 0.06 | 22 | 043 | 0.115 | 11 | 97.4 | 0.28 | 165.2 |
| PAN 5 WM | 6.2 | 15.0 | 0.10 | 0.93 | 0.07 | 24 | 027 | 0.065 | 17 | 77.1 | 017 | 176.4 |
| PAN 6 WM | 38 | 100 | 0.08 | 086 | 0.05 | 27 | 0.35 | 0058 | 10.3 | 76.8 | 0.23 | 110.0 |
| PAN 7 WM | 49 | 176 | 0.07 | 1.03 | 0.08 | 26 | 031 | 0073 | 135 | 56.5 | 017 | 1878 |
| PAN 8 WM | 5.0 | 141 | 0.16 | 1.99 | 0.06 | 32 | 0.48 | 0092 | 11.3 | 846 | 0.29 | 233.9 |
| PAN 9 WM | 6.7 | 18.4 | 0.07 | 031 | 008 | 32 | 0.41 | 0072 | 18.9 | 64.1 | 031 | 346.8 |
| PAN 10 WM | 60 | 102 | 0.04 | 0.15 | 0.11 | 29 | 030 | 0062 | 17.5 | 62.9 | 0.30 | 66.3 |
| PAN 11 WM | 5.8 | 16.2 | 005 | 0.22 | 0.06 | 21 | 036 | 0079 | 147 | 751 | 0.27 | 1383 |
| PAN 12 WM | 4.9 | 12.1 | 0.40 | 2.21 | 0.16 | 30 | 024 | 0.059 | 14.7 | 91.5 | 020 | 163.2 |
| PAN 13 WM | 42 | 96 | 008 | 1.29 | 0.06 | 20 | 0.25 | 0048 | 97 | 786 | 0.18 | 124.3 |
| PAN 14 WM | 3.1 | 112 | 0.10 | 056 | 006 | 34 | 0.43 | 0056 | 79 | 756 | 0.37 | 113.8 |
| PAN 15 WM | 3.1 | 145 | 012 | 084 | 012 | 46 | 045 | 0104 | 88 | 762 | 0.25 | 6045 |
| PAN 16 WM | 49 | 148 | 0.18 | 2.01 | 012 | 34 | 035 | 0098 | 12.8 | 102.0 | 025 | 724.5 |
| PAN 17 WM | 71 | 170 | 0.10 | 056 | 009 | 45 | 047 | 0150 | 208 | 90.4 | 0.19 | 531.9 |
| PAN 18 WM | 3.1 | 13.3 | 006 | 0.44 | 005 | 36 | 0.54 | 0139 | 92 | 61.8 | 0.28 | 176.2 |
| PAN 19 WM | 66 | 17.0 | 0.10 | 3.22 | 007 | 30 | 0.32 | 0098 | 178 | 565 | 012 | 3100 |
| PAN 21 WM | 3.2 | 19.3 | 0.09 | 0.38 | 0.18 | 91 | 067 | 0194 | 9.9 | 64.9 | 0.23 | 320.1 |
| PAN 22 WM | 22 | 144 | 007 | 025 | 004 | 34 | 056 | 0150 | 65 | 888 | 030 | 1417 |
| PAN 23 WM | 80 | 7.9 | 0.07 | 0.15 | 008 | 31 | 0.43 | 0142 | 22.6 | 554 | 0.26 | 150.5 |
| PAN 24 WM | 2.5 | 95 | 004 | 106 | 004 | 36 | 039 | 0116 | 7 | 50.6 | 033 | 1710 |
| PAN 25 WM | 22 | 92 | 006 | 032 | 0.04 | 35 | 038 | 0.075 | 5.1 | 489 | 0.22 | 132.0 |
| REPAN 25 WM | 2.3 | 93 | 0.06 | 0.31 | 0.04 | 35 | 038 | 0077 | 5.5 | 49.7 | 022 | 132.2 |
| PAN 26 WM | 52 | 12.9 | 0.17 | 175 | 019 | 29 | 036 | 0111 | 132 | 884 | 0.22 | 9817 |
| PAN 27 WM | 42 | 139 | 0.15 | 105 | 012 | 33 | 045 | 0127 | 127 | 1005 | 025 | 7512 |
| PAN 28 WM | 43 | 139 | 0.15 | 2.62 | 0.23 | 35 | 044 | 0126 | 111 | 163.7 | 028 | 1205.2 |
| PAN 29 WM | 52 | 171 | 009 | 0.53 | 0.07 | 43 | 049 | 0.158 | 158 | 974 | 017 | 3816 |
| Pan 30 Wm | 16 | 105 | 008 | 021 | 0.04 | 27 | 044 | 0.109 | 51 | 599 | 028 | 1365 |
| Standard dse | 39 | 270 | 10.39 | 998 | 11.32 | 73 | 051 | 0091 | 16 | 1574 | 058 | 1466 |


| Northern A |  |  |
| :---: | :---: | :---: |
| ELEMENT | Ga Sample |  |
| SAMPLES | ppm | gm |
| WMS PAN 1 | 1.6 | 30 |
| PAN 2 WM | 2.1 | 30 |
| PAN 3 WM | 18 | 30. |
| PAN 4 WM | 2.3 | 30 |
| PAN 5 WM | 18 | 30 |
| PAN 6 WM | 1.8 | 30 |
| PAN 7 WM | 1.8 | 30 |
| PAN 8 WM | 2.2 | 30 |
| PAN 9 WM | 2.4 | 30 |
| PAN 10 WM | 2.6 | 30 |
| PAN 11 WM | 2.3 | 30 |
| PAN 12 WM | 2.3 | 30 |
| PAN 13 WM | 18 | 30 |
| PAN 14 WM | 2.4 | 30 |
| PAN 15 WM | 2.2 | 30 |
| PAN 16 WM | 2.3 | 30 |
| PAN 17 WM | 2.2 | 30 |
| PAN 18 WM | 2.1 | 30 |
| PAN 19 WM | 18 | 30 |
| PAN 21 WM | 3.1 | 30 |
| PAN 22 WM | 2.4 | 30 |
| PAN 23 WM | 2.0 | 30 |
| PAN 24 WM | 2.4 | 30 |
| PAN 25 WM | 18 | 30 |
| RE PAN 25 WM | 19 | 30 |
| PAN 26 WM | 2.0 | 30 |
| PAN 27 WM | 2.1 | 30 |
| PAN 28 WM | 2.2 | 30 |
| PAN 29 WM | 2.1 | 30 |
| PAN 30 WM | 2.1 | 30 |
| Standaro dse | 6.3 | 30 |


(3)

The project is about 75 miles $(120 \mathrm{~km})$ west of Dawson City, in DAWSON mining DISTRICT on maps NTS 115 N 10115 Accesses by, 2 wheel drive truck from Dawson Atty on To of waRLSHIGH coAl, then one turing off to mile placer mining district. One tales the hoad F MAt SON CAfe C CRoss the 60 milk River at miller Or -Grant Lolly sap the road si very good it about \&. Some cat trail exist it the area but are most likely, not drivable.

My target is foin, most likely veins in Co foil zones (2) 2 resistant knobs (3) the contact zone between 2 groups of plutonic routs of different ages.
quake discussed th

A hade discussed this project with CRAIG HART (YUKCON EOA GEG LID and Ken Gulambar

PROTECT BOUNDARIES LI REASONS FOR PROTECT
(1)ROADACCESS. AUSO cat trails allow easy walling acceso to prospective areas
(2) PLACER GOLO EXPLORATION. The area was staked i 1992 and from then to present $s, 75,196$ of fesplosation has
(3) 2
plecerume- Alus $6-9$ years ofexcess
(3) $A R E A$ seen eltele explonationn-but areast north (oomill destruets) has. (4) PLACER GOLD has been dowmentoq in Ladue luirer it socith $\times$ so mile fiver to vorlt gpant foweny) Thisarea sits between both. But no recordel productión5 URANIUM In SILTS Gout. sill sevvey only anomolouselement in URaniumb The TOMBSTONE MOUNTITINS NONTK O DNWson lity have URANIUM AND GOLD: FGOLD Can be assolíated wiEk URANMM. (6) MANY $\angle$ INEARS The placer Cfauns drain an anea that fó complex fault t linear wise, One long fauld may be 10-20km long.
(7) UNRECOGNZ ZSD GOLP BRLT. Placer golejp
good structures-linearp-faull ace of good sthuctures-linears, fault, ate nos w could dis outh "rin "roun years Rock Bete""
WORK PLAN (for 2000 )
My plan is use thuch campsat various placesalong the roud that in drvieat ts $\rightarrow$ Silds smples will be faren $\rightarrow$ up to 55 . I willfill 2 soil bags wit -2o inespsilt from activi areas i soreams. They will be tested for Au (3ogm samples) $t 1 C p-m s$
(3) 3 NB. gout siets sin ULTRATRace. Low detection Covelo Bi, 0.02 PPM, Sb 0.02, Te 0.02, As O.lppm.
-Av $-80+200$ mesh 30 gm Fineassay
$-1 c p-200$ mesh
30 gm Eimeassay
$\rightarrow$ Ran concentrith ax pach sitit. A yollow Home turduare paillt lwill bef fillbg hp wirth stream silftipravel +pasael thrula -8 megh acha pan hred downta a pound sample, Bopeculle it inncentrite Abas welle ap Au inoicaros alemenss - lan cozuc.wilfl he pulveriged ta 30 gm sample doser for Act $1 C P$-ms ult trathace. $\rightarrow$ soik samples- up t $A$ linies maybe dope, at 150 . F 300 ' in totwals and tooted
for 30 igr. (Avt 16 ins sultratiace) $=-80$ med. My highest priority target is thens
 A second prionth is the boumalaryas the p plustonc rocks. Near the faudt+ilher, soors Maybe Hhel hever ceatea it or Au ar bi or Te, or w!!?? At íclased ko a uRonvium ocaurrence

Q necent ORe geology review 16 (2000) 71-90 descrine an arela of granivocáls of 2 ages. Only one has gold and ix is gold alone, in granitocds anel i shear zones aloaq boundarés. Ages and geology + Tectonés are diflerenxtlan tese fut??
(3) 4 $\left(\begin{array}{l}2000 \\ \text { GRASSNOTS) }\end{array}\right.$
3) A Fort knox deposit (or sinífar maybe present so \& should loon for 11 veins in outcrop or post ib l zectinic well he done looting for ourtiopxfloax particularly ai reséstune KNoBS-Bumutt Lt Te in sill loans $\rightarrow$ AT KNOX ENUIR But GOLO MAYBE ALONE

UPon completion of the project and season Twill give to umib a wiomnal witt all data, assays, conclusions mass receipt, ert and a tecnuical lepostall worth will be done to "I NDusTex TiMrDARDS" and all bills will be paid.

Reclamation tonveroonmentativoret (PIIS, cAMPS, DRENCHES, ACCESS Ont will lie done Do "Noustre SHNDAROS "and as requlations are stales. Campsites will be cleaned up, all garbage urillbe removed
t tale en lout.

POSSIBLE GOLD ASSOC???
(1) Av-URANIU'M
(2) Au B, Te
(3) A alone
(4) Av-?
(3) 5

REFERENCES

- GEOPHYSICAL PAPER/MAP $426 \sigma G I I S N I S$ CRAG Mt,
- GSC OPEN FILEN H,364 GEOCHOMICRL SURVEY NTS $115 N(E 1 / 2)$, 1150
-OPEN EILE 1996-1(G) GEOLOGICHL compiiatión meps of N. STEw Pet River area klondeize + 60 mile Dismías MAPS $115 \frac{(N 15-16)(013-17)(015-16)}{9}$
- PLUTON RELATED THERMAE AUREOLE GOLD OEPOSIİS ARI UIC WALL YUKON GEOSCIENCE SAORA COURSU 1998
- WORK ASSESSNENT REPORTS ( $992-2000$ )
-ORE GEOLOGY REUIEW 16(2000)7/-90 TECTONICS GRAN TOIOS TMEZO ZOIÉ GOLD deposét is ESHANDONG, China
- MINFILE $115 \mathrm{NO} 08^{\circ}$, O98, 108
- PERSONAC COMMUN LCATION

Len galam bos 4 mip orel
GRARI LOwely ED A placer REN CROAG AHAEY EOA ASRD POKGEOL
(3) 6

BUDGET
CRAIG MT PCATECT

$$
\begin{aligned}
& \text { - GAS (GmC } 4 \times 4 \text { ) } 1800 \mathrm{~km} x^{\circ} .72 / \mathrm{km} 5756 \\
& 600+600+150+150+150+150 \\
& \text { - RUUCK RENTALISELF-OWNED) } 725 \\
& \text { \#450 } \times 25 \% \times 2 \text { month } \\
& \text { - Diem So Days } \times 35 \\
& \text { SB/1, } 180 \times 25 \% \times 2 \\
& \text {-ASSAYS (UPTO) } \\
& \text { - } 55 \text { PAN conc lsint } \times 70 \text { } 3850 \\
& \text { F50 Bednch/Fload } X^{8} 25 \cdot 1250 \\
& 164 \text { solís } \\
& x 30 \\
& 4920 \\
& 300 \\
& \text {-min } \\
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Affaires indiennes et du Nord Canada


Claim Status Report


## Criteria(s) used for search:

CLAIM STATUS: ACTIVE \& PENDING GRANT NUMBER (FROM \& TO): P 38731 \& P 38738, P 43421 \& P 43424 GRANT NUMBER (FROM): P 38676 OWNER RPS: 1003613 REGULATION TYPE: PLACER

Affairs Canada

- et du Nord Canada

APPLICATION FOR RENEWAL OF GRANT FOR PLACER MINING
FORM 2
YUKON PLACER MINING ACT

This form to be submitted in duplicate to the Mining Recorder for the District in which the claim is recorded, with a sketch showing location of work.
Mining District

- Austen

Hereby apply under the Yukon Placer Mining Act for a renewal of a grant to a placer mining claim number (s) $0.36,0.50$
p38\%31-51

I MAKE OATH AND SAY THAT: -

1. I am the owner of the said placer mining claim and hold a grant (or renewal) for the said claims) dated the $\qquad$ day of $\qquad$ WiNy 1998 under grouping number $\qquad$ DPO1998
2. Work has been done on the said claims) to the value of at least $\qquad$ dollars in accordance with the schedule of representation work prepared by the Commissioner of the Yukon Territory, since the $\frac{5 \text { coly } 93}{\text { (new groepais) }}$ day of $\qquad$ 19 $\qquad$ .

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Years renewal requested

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APPLICATION FOR RENEWAL OF GRANT FOR PLACER MINING SCHEDULE "B" FORM 2
YUKON PLACER MINING ACT

Fins form to be submitted in duplicate to the Mining Recorder for the District in which the claim is recorded. with a sketen showing location of work.
Mining District


Heresy apply under the Yukon Placer Mining Act for a renewal of a grant to a placer mining claim numbers) $\qquad$

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I MAKE OATH AND SAY THAT: -
: i am the owner of the said placer mining claim and hold a grant (or renewal) for the said claims) dated the 30 av of Oe p 19 ${ }_{19} 9$. under grouping number $\qquad$
2. Work has been done on the said claims) to the value of at least $\qquad$ dollars in accordance with the schedule of representation work prepared Dy the Commissioner of the Yukon Territory, since the $\qquad$ a av of $\qquad$ 19 $\qquad$

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Years renewal requested $\qquad$


APPLICATION FOR RENEWAL OF GRANT FOR PLACER MINING FORM 2
YUKON PLACER MINING ACT

This form to be submitted in duplicate to the Mining Recorder for the District in which the claim is recorded, with a sketch showing location of work.
Mining District

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A 45625

 $\qquad$
or (ossa sties) Box 7383 PRAY TON VALLEY AB TIA 156

I MAKE OATH AND SAY THAT: -

1. I am the owner of the said placer mining claim and hold a grant (or renewal) for the said claim(s) dated the
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2. Work has been done on the said claims) to the value of at least $\qquad$ schedule of representation work prepared by the Commissioner of the Yukon Territory, since the $\qquad$ 18


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APPLICATION FOR RENEWAL OF GRANT FOR PLACER MINING FORM 2
YUKON PLACER MINING ACT

This form to be submitted in duplicate to the Mining Recorder for the District in which the claim is recorded, with a sketch showing location of work.
Mining District
of (postal address)


Hereby apply under the Yukon Placer Mining Act for a renewal of a grant to a placer mining claim numbers) $\qquad$
frame $1-8$ P38731-P38738, V1P 16-S P38640-60t.
I MAKE OATH AND SAY THAT: -
$\qquad$ 30

1. I am the owner of the said placer mining claim and hold a grant (or renewal) for the said claims) dated the $\qquad$ DP 81998 day of $\qquad$ Dept 96 under grouping number $\qquad$ $\$ 3,960.00$
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2. Work has been done on the said claims) to the value of at least $\qquad$ schedule of representation work prepared by the Commissioner of the Yukon Territory, since the $\qquad$ 15 Shaft $4^{k} 4^{\prime} \times 18^{\prime}$ dep 31 Dug 97

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APPLICATION FOR RENEWAL OF GRANT FOR PLACER MINING FORM 2 yUKON PLACER MINING ACT

This form to be submitted in duplicate to the Mining Recorder for the District in which the claim is recorded，＇ with a sketch showing location of work．
Mining District
Dawson $\qquad$

Hereby apply under the Yukon Placer Mining Act for a renewal of a grant to a placer mining claim numbers） $\qquad$ DP O1998

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p 38640-650, \quad p 35651-76, \quad \rho 38731-738
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I MAKE OATH AND SAY THAT：－
1．I am the owner of the said placer mining claim and hold a grant（or renewal）for the said claims）dated the $\qquad$ 30
$\qquad$ 19 $\qquad$ DPO1998

2．Work has been done on the said claims）to the value of at least 850，274， 70
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The following is a detailed statement of such work（length，width and depth of each hole，pit，trench．stripped area；type of equipment used and operator）

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Indian and Northern Affairs Canada

Affaires indiennes et du Nord Canada

## APPLICATION FOR RENEWAL OF GRANT FOR PLACER MINING (Using Excess Work Credits only)

## YUKON PLACER MINING ACT

This form to be sumitted in duplicate to the Mining Recorder for the District in which the claim is recorded.


Mining District: Dawson
Applicant's Full Name: Pete Vow
Applicant's Full Mailing Address: $\frac{\text { Box } 7383}{\text { Apr and Street or Poo. Box }}$

- Drayton Valley $\quad$ Pry

Applicant's Phone no: (home) $\qquad$ (work) $\qquad$
Claim Owners) Full Name (if different from applicant): $\qquad$

## Claims for Renewal:



Please use separate form for additional claims.

NOTE: There must be sufficient excess work credits filed with the Mining Recorder in order for claims to be renewed using this form.


Canad ar'

## APPLICATION FOR RENEWAL OF GRANT FOR PLACER MINING

 (Using Excess Work Credits only)
## YUKON PLACER MINING ACT

This form to be sumitted in duplicate to the Mining Recorder for the District in which the claim is recorded.


Mining District:
Dawson Pete Vow
Applicant's Full Mailing Address: BOX 7383


Applicant's Phone no: (home) $\qquad$ (work)

Claim Owners) Full Name (if different from applicant): $\qquad$

Claims for Renewal:

| Claim Names) | Grant Numbers) | Grouping no. <br> (ii applicable) | Renewal Years <br> Requested |
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Please use separate form for additional claims.

NOTE: There must be sufficient excess work credits filed with the Mining Recorder in order for claims to be renewed using this form.


## Canadäa



## YUKON MINFILE YUKON GEOLOGY PROGRAM WHITEHORSE

NAME(S): Mag
MINFLLE \#: 115N 037
MAJOR COMMODITIES: -
MINOR COMMODITIES: -
TECTONIC ELEMENT: Yukon Tanana Terrane

NTS MAP SHEET: 115 N 15
LATITUDE: $63^{\circ} 45^{\prime} 055^{\prime N}$
LONGITUDE: $140^{\circ} 55^{\prime} 48^{\prime \prime} \mathrm{W}$
DEPOSIT TYPE: Unknown
STATUS: Uncertain

## CLAIMS (PREVIOUS AND CURRENT)

MAG

## WORK HISTORY

Staked as 88 Mag cl (Y56531) in Apr/70 by W. Hyde and H. Rail and prospected by the Caltor Syndicate (Rayrock NL, Ashland O \& GL, and Can. Ind. O \& G L) in Jul/70.

## GEOLOGY

Claims cover an area of Early Mississippian granitic augen gneiss (unit DMgg) cut by several small intrusive stocks of probable Early Jurassic age (unit eJqm). No evidence of mineralization was found by Caltor.

## REFERENCE

Mortensen, J.K., Geological Compilation Maps of the Northern Stewart River map area Klondike and Sixtymile Districts ( $115 \mathrm{~N} / 15,16 ; 1150 / 13,14$ and parts of $1150 / 15,16$ ). Exploration and Geological Services Division, Yukon, Indian and Northern Affairs Canada, Open file 1996-1 (G).

# YUKON MINFILE <br> YUKON GEOLOGY PROGRAM <br> WHITEHORSE 

NTS MAP SHEET: $115 \cdot \mathrm{~N} 15$
LATTTUDE: $63^{\circ} 49^{\prime} 58^{\prime \prime} \mathrm{N}$
LONGITUDE: $140^{\circ} 58^{\prime} 59^{\prime \prime} \mathrm{W}$
DEPOSIT TYPE: Unknown
STATUS: Anomaly

## CLAIMS (PREVIOUS AND CURRENT)

USA, CRAG

## WORK HISTORY

Staked as USA cl (Y37558) in Mar/70 by C. Carr and prospected by the Caltor Synd (Rayrock ML, Ashland O \& GL, Can Ind O \& GL) in Jul/70. Restaked as Crag cl (YA47649) in Sep/79 by a joint venture between Eldorado Nuclear L and Can Occidental Mls, which explored with geochemical and radiometric surveys in 1980. In 1982, Eldorado changed its name to Eldor Res Ltd.

## GEOLOGY

The 1970 claims were staked on a biotite-muscovite-quartz monzonite intrusion of probable Early Jurassic age (unit eJqm) cutting Early Mississippian granitic augen gneiss (unit DMgg).
No evidence of mineralization was found by Caltor. The Eldorado staking covered areas where stream sediment sampling returnedranomalous uranium values) Grid surveys identified four radiometric and six soil geochemical anomalies. The highest soil sample values (up to 400 ppm U ) were obtained near a uraniferous spring.

## REFERENCES

ELDORADO NUCLEAR LTD AND CANADIAN OCCIDENTAL MINERALS LTD, Jan/81. Assessment Report by W. Olsson.

MORTENSEN, J.K., Geological Compilation Maps of the Northern Stewart River map area Klondike and Sixtymile Districts (115N/15,16; 1150/13,14 and parts of 115O/15,16). Exploration and Geological Services Division, Yukon, Indian and Northern Affairs Canada, Open file 1996-1 (G).

YUKON GEOLOGY PROGRAM AND EXPLORATION 1979-80, p. 273.

# YUKON MINFILE <br> YUKON GEOLOGY PROGRAM WHITEHORSE 

NAME(S): Lerner
MINFILE \#: 115N 039
MAJOR COMMODITIES: $\mathrm{Ag}, \mathrm{Pb}$
MINOR COMMODITIES: $\mathrm{Au}, \mathrm{Zn}$
TECTONIC ELEMENT: Yukon Tanana Terrane

NTS MAP SHEET: 115 N 15
LATITUDE: $63^{\circ} 55^{\prime} 29^{\prime \prime} \mathrm{N}$
LONGITUDE: $140^{\circ} 48^{\prime} 52^{\prime \prime} \mathrm{W}$
DEPOSIT TYPE: Vein
STATUS: Open pit past producer

## CLAIMS (PREVIOUS AND CURRENT)

CCL, JACK, REX, LUBRA, JUDY, PRA, HAR

## WORK HISTORY

Staked as CCL, Jack, etc cl (87620) in Aug/65 by J. Lerner \& M. Chefkoi and optioned to A. Moisey, who enlarged the property and conducted geochem sampling and bulldozing in 1965. The claims were transferred to a new company, Sixty Mile Mg CL, which conducted additional bulldozing and EM surveys in 1966-67 and shipped about 9 tonnes of hand-cobbed ore from the No. 3 Vein in 1966. Mt Crag ML tied on Rex \& Lubra cl (Yl5l62) to the west in Jun/67 but filed no work.

Connaught ML optioned the property early in 1968 and explored with mapping and geochem sampling, extensive bulldozer trenching and 2 holes ( 112.8 m ) in 1968-69. J. Lerner restaked the No. 3 Vein as Judy 2 cl (Y82496) in May/74 and mined and shipped about 191 tonnes in 1974-76. In Jan/81, he restaked the Rex-Lubra as Judy cl (YA55162), transferred the property to Judy Mg Synd, and sold it to Lougheed Res Inc, which performed mapping and trenching later in the year.

The property was transferred to Bethex E Inc and optioned by Madre Mg L in 1983, and transferred to Judy Res Inc in 1984 and Cumo Res L and X-Pat Dev L in 1986. In 1988, the Judy cl were optioned to Shakwak Exp CL.

Croesus Res Inc partially restaked the property and tied on PRA \& HAR cl (YA89110) in Apr/87 and performed mapping, geochem and geophysical surveys and bulldozer trenching later in the year and drilled 10 diamond drillholes ( 315.8 m ) in 1988. The Pra \& Har cl were transferred in May/89 to Walhala EL. Tombstone Exploration Ltd conducted a drilling program on the Pra cl in 1993.

## GEOLOGY

North-northeast-striking, mesothermal(?) quartz-carbonate-sulphide veins cut Nasina Assemblage schists (unit DMs) and Early Mississippian granitic augen gneiss (unit DMgg) south of Mosquito Creek.

Most of the work has been performed at the northwest locality; called No. 3 Vein. Galena and arsenopyrite, with minor sphalerite, tetrahedrite and boulangerite, form lenses over 12.1 m long and $0.9-1.2 \mathrm{~m}$ thick in quartz veins up to 2.1 m thick in a complex en echelon vein system. The 1966 and 1974-76 shipments were made from a single lens and averaged about $2228.5 \mathrm{~g} / \mathrm{t} \mathrm{Ag}, 60 \% \mathrm{~Pb}$ and $1.03 \mathrm{~g} / \mathrm{t} \mathrm{Au}$. The best 1969 intersection was $130.3 \mathrm{~g} / \mathrm{t} \mathrm{Ag}$ and $2.7 \% \mathrm{~Pb}$ across 0.7 m .

The southeast locality, called the No. 2 and No. 7 Veins, has received less work and is more weakly mineralized.

Glasmacher and Friedrich (1992) recognized three stages of vein formation: (1) quartz-pyrite; (2) arsenopyrite-galena (3) quartz-pyrite-sphalerite-chalcopyrite-freibergite. Precious metals were deposited during the second stage. Fluid inclusion and microprobe studies show that the veins formed from high salinity, low pH fluids at temperatures which were initially as high as $330^{\circ} \mathrm{C}$.

## GEOLOGY (CONTINUED)

The Tony and Pra claims cover the contact between quartzite, limestone and skarn of the Nasina Series, quartz monzonite and Pelly Gneiss intruded by Cretaceous granite.

Altered quartz monzonite on the property returned anomalous Cu and Mo values, and magnetite-quartzcarbonate and diopside skarn returned anomalous values in $\mathrm{Bi}, \mathrm{Au}, \mathrm{As}, \mathrm{Ag}$ with $\mathrm{Pb}, \mathrm{Zn}$ and Cu .

## REFERENCES

GEOLOGICAL SURVEY OF CANADA, Paper 67-40, p. 29.
GEOLOGICAL SURVEY OF CANADA, Paper 68-68, p. 32-33.
GEORGE CROSS NEWSLETTER, 3 Jun/88.
GLASMACHER, U., and FRIEDRICH, G., 1992. Gold-sulphide enrichment processes in mesothermal veins of the Sixtymile River area, Yukon Territory, Canada. In: Yukon Geology Vol. 3, Exploration and Geological Services Division, DIAND, p. 292-311.

KELON RESOURCES AND CROESUS RESOURCES INC., Nov/88. Yukon Exploration Incentive Program Report \#093109 by B.J. Price (EIP88-036).

LOUGHEED RESOURCES INC., Feb/81. Engineer's Report by R.T. Heard.
MINERAL INDUSTRY REPORT 1969-70, p. 32-33.
MORTENSEN, J.K., Geological Compilation Maps of the Northern Stewart River map area Klondike and Sixtymile Districts (115N/15,16; 115O/13,14 and parts of $1150 / 15,16$ ). Exploration and Geological Services Division, Yukon, Indian and Northern Affairs Canada, Open file 1996-1 (G).

YUKON GEOLOGY PROGRAM AND EXPLORATION 1981, p. 224.

# YUKON MINFILE YUKON GEOLOGY PROGRAM WHITEHORSE 

NAME(S): Connaught
MINFILE \#: 115N 040
MAJOR COMMODITIES: Ag, Pb
MINOR COMMODITIES: $\mathrm{Au}, \mathrm{Zn}$
TECTONIC ELEMENT: Yukon Tanana Terrane

NTS MAP SHEET: 115 N 15<br>LATITUDE: $63^{\circ} 54^{\prime} 50^{\prime \prime} \mathrm{N}$<br>LONGITUDE: $140^{\circ} 47^{\prime} 46^{\prime \prime} \mathrm{W}$<br>DEPOSIT TYPE: Vein<br>STATUS: Open pit past producer

## CLAIMS (PREVIOUS AND CURRENT)

CCL, TOB, PRA

## WORK HISTORY

Probably discovered in the early 1900's but apparently first staked as CCL cl (87004) in Aug/65 by J. Lerner and M. Chefkoi. The claims were optioned by A. Moisey, who enlarged the property and conducted geochem sampling and bulldozing in 1965. They were subsequently transferred to a new company, Sixty Mile Mg CL , which conducted additional bulldozing and EM surveys in 1966 and 1967. A shipment of about 9 tonnes of hand-cobbed ore was made to the Trail Smelter in 1966 from No. 1 Vein. Connaught ML optioned the property early in 1968 and explored with mapping and geochem sampling, extensive bulldozer trenching and 6 holes ( 318.8 m ) in 1968-69. Toby ML tied on TOB cl (Y15828) in Apr/69 and performed buldozer trenching in 1970.

Connaught's interest was transferred to A.F. Tottrup in 1976 and optioned to J. Lerner, who mined and shipped about 27 tonnes from the No. 1 Vein later in the year. Tottrup optioned the property in 1979 to Westley ML, which did no work.

Restaked as PRA cl (YA89074) in Apr/87 by Croesus Res Inc, which performed mapping, geochem sampling, geophysical surveys and bulldozer trenching later last year, then optioned the property to Red Fox ML, which drilled 296.3 m in 8 holes in 1988. The claims were transferred in May/89 to Walhalla EL, which drilled 1 hole ( 411 m ) later that year on this and the adjoining Butler occurrence (MINFILE 115N 042).

Tombstone Exploration Ltd optioned the property and conducted bulldozer trenching and geochemical sampling in 1990, overburden drilling in 1992, and drilling on the Pra cl in 1993.

## GEOLOGY

Most of the work was performed at the western locality, called No. 1 Vein, which was the original discovery. The showing consists of lenses of galena and arsenopyrite with minor sphalerite, tetrahedrite and boulangerite in northeast-striking quartz veins cutting Nasina Assemblage schists (unit DMs) which is cut by sills of Early Mississippian granitic augen gneiss (unit DMgg). The No. 1 Vein was exposed with trenching for a length of 1036 m , of which the best portion averaged $781.7 \mathrm{~g} / \mathrm{t} \mathrm{Ag}, 19.9 \% \mathrm{~Pb}$ and $1.1 \mathrm{~g} / \mathrm{t} \mathrm{Au}$ over an average width of 1.2 m for a length of 45.7 m .

The 1966 and 1976 shipments, which were mixed with ore from the Lerner occurrence, averaged about $2228.5 \mathrm{~g} / \mathrm{t} \mathrm{Ag}, 60 \% \mathrm{~Pb}$ and $1.0 \mathrm{~g} / \mathrm{t} \mathrm{Au}$. Drilling gave erratic results, with the best intersection $997.7 \mathrm{~g} / \mathrm{Ag}$, $26.5 \% \mathrm{~Pb}$ and $2.74 \mathrm{~g} / \mathrm{t}$ Au over 0.7 m . Selected specimens of wall rock assayed up to $5.5 \mathrm{~g} / \mathrm{t}$ Au but most assays were below $1.4 \mathrm{~g} / \mathrm{t}$.

The more southerly of the two veins to the east, the No. 4 Vein, averaged $610.3 \mathrm{~g} / \mathrm{Ag}$ and $9.1 \% \mathrm{~Pb}$ across a 1.2 m width for a length of 160.6 m in trench samples. Drilling of this vein in 1988 returned assays up to $534.8 \mathrm{~g} / \mathrm{t} \mathrm{Ag}, 2.15 \% \mathrm{~Pb}$ and $0.41 \mathrm{~g} / \mathrm{t} \mathrm{Au}$ over 2.3 m and $209.1 \mathrm{~g} / \mathrm{t} \mathrm{Ag}, 1.16 \% \mathrm{~Pb}$ and $0.69 \mathrm{~g} / \mathrm{t} \mathrm{Au}$ over 5.3 m . The other showings, called the No. 5 and No. 6 Veins, have received less work and are only weakly mineralized.

Overburden drilling in 1992 tested a copper-gold soil anomaly and intersected altered quartz monzonite.

## REFERENCES

GEOLOGICAL SURVEY OF CANADA Paper 67-40, p. 29; Paper 68-68, p. 32-33.
GEORGE CROSS NEWSLETTER, 31 May/79; 15 Dec/87; 7 Jul/92.
LOUGHEED RESOURCES INC., Feb/81. Assessment Report by R.T. Heard.
MINERAL INDUSTRY REPORT 1969-70, p. 32-35.
MORTENSEN, J.K., Geological Compilation Maps of the Northern Stewart River map area Klondike and Sixtymile Districts (115N/15,16; 1150/13,14 and parts of 1150/15,16). Exploration and Geological Services Division, Yukon, Indian and Northern Affairs Canada, Open file 1996-1 (G).

RED FOX MINERALS LTD, Nov/87. Assessment Report \#062295 by B. Price.
RED FOX MINERALS LTD, Feb/89. Yukon Exploration Incentive Program Report \#093111 by B. Price (EIP88-036).

WALHALA EXPLORATION LTD AND RED FOX MINERALS LTD, Feb/89. Assessment Report \#092719 by B.J. Price.

YUKON EXPLORATION 1989, p. 7; 1990, p. 11.

## YUKON MINFILE YUKON GEOLOGY PROGRAM WHITEHORSE

NAME(S): Per
MINFILE \#: 115N 041
MAJOR COMMODITIES: $\mathrm{Ag}, \mathrm{Pb}, \mathrm{Zn}$
MINOR COMMODITIES: $\mathrm{Au}, \mathrm{Hg}$
TECTONIC ELEMENT: Carmacks volcanics

NTS MAP SHEET: 115 N 15
LATITUDE: $63^{\circ} 59^{\prime} 03^{\prime \prime} \mathrm{N}$
LONGITUDE: $140^{\circ} 46^{\prime} 56^{\prime \prime} \mathrm{W}$
DEPOSIT TYPE: Vein
STATUS: Drilled Prospect

## CLAIMS (PREVIOUS AND CURRENT)

PER, DANA, \#1-6, MARTIN, RODGER, YBS, DELIA, WENDY, SIXTY MILE, QUARTZ

## WORK HISTORY

Apparently found by placer miners prior to 1920 and first staked as Per, etc cl (76620) in Jun/65 by Per Johnson and optioned to General Enterprises L, which explored with bulldozer trenching and 2 short drill holes in 1965.

Restaked as Dana, etc cl (Y56827) in Jun/70 by J. Bailey, etc, who explored by hand trenching. Cogasa ML (B.E.L. Yukon Establishment) staked the \#1-6 cl (YA10391) 3.2 km northeast in Jul/77 in connection with nearby placer work and performed bulldozer trenching in 1979. The Martin, Rodger and YBS cl (YA47786) were added 4.8 km to the southeast in Oct/79 by J. Trottier, etc, who trenched later in the year.

Restaked as Delia \& Wendy cl (YA87688) in Aug/85 by E. Kreft, who trenched in 1986 and 1987. Esso Mls Can L tied on Sixty Mile cl (YA88238) to the southwest in Oct/86 and explored with mapping and sampling in 1987 and 1988. Kreft performed geological mapping and geophysical surveys in 1988 then optioned the claims to Klondike Gold Mg Corp, which diamond drilled 4 holes ( 192.0 m ) in 1989.

Homestake Mineral Development Co. Ltd optioned the Sixty Mile claims in April, 1989 and prospected and sampled later in the year.

Four Quartz cl (YA40599) which adjoin the Delia and Wendy cl on the northwest side were transferred to A.J. McFaull in May/92.

## GEOLOGY

Galena, sphalerite and arsenopyrite occur in a northeast-trending vein which cuts a small down-faulted block of Late Cretaceous Carmacks Group volcanics (unit lKva) overlying Nasina Assemblage schists (unit DMs). The vein is about 8 to 60 cm wide and is exposed for about 61 m . The best chip assay reported was $428.6 \mathrm{~g} / \mathrm{t} \mathrm{Ag}$, $26.4 \% \mathrm{~Pb}, 4.7 \% \mathrm{Zn}$, and $1.4 \mathrm{~g} / \mathrm{t} \mathrm{Au}$ over a 76 cm width.

Kreft's 1986 trenching tested a 91 m wide zone of altered andesite containing massive pyrite lenses, quartz stockworks, and disseminated chalcopyrite and galena. Specimens from the trenches assayed up to $26 \mathrm{~g} / \mathrm{t}$ Au and $3497 \mathrm{~g} / \mathrm{t} \mathrm{Ag}$. The highest silver values were obtained 460 m north of the main showing area. All four of Klondike's drillholes intersected granodiorite dykes of probable Late Cretaceous age (unit 1 Kgdr ) containing quartz veins and stockworks with pyrite and arsenopyrite. DDH \#2 intersected 12 m grading $7.1 \mathrm{~g} / \mathrm{t} \mathrm{Au}$, including 1.5 m grading $41.1 \mathrm{~g} / \mathrm{t} \mathrm{Au}$. The mineralized intersection was also enriched in Zn and Hg ( $\mathrm{E} . \mathrm{Kreft}$, personal communication).

Homestake's 1989 samples contained up to 402 ppb Au and 7.9 ppm Ag . Brecciated andesite with $1-2 \%$ pyrite returned a value of 204 ppb Au and was also anomalous in silver, arsenic, bismuth, copper and tellurium.

Cinnabar was recovered in sluice boxes by placer miners along this portion of the Sixty Mile River gravels but the source was never found. Esso investigated strongly fractured andesite flows and andesite breccia with local clay alteration and obtained disappointing results.

## GEOLOGY (CONTINUED)

Glasmacher and Friedrich (1992) recognized two types of veins in this area: a gold-bearing pyritearsenopyrite type and a silver-bearing galena-sphalerite type, both of which they related to Late Cretaceous volcanic activity. The Miller Creek veins are of the second type, and this is reflected in the notably higher silver content ( 9 to 35 weight \%) of gold nuggets from the lower part of Miller Creek. Four stages of mineralization are recognized: (1) iron-poor sphalerite-galena-quartz; (2) iron-rich sphalerite-pyrite-pyrrhotite-arsenopyrite-chalcopyrite-galena-siderite; (3) sphalerite-pyrite-marcasite-chalcopyrite-galena-siderite-ankerite-dolomite-calcite; (4) iron-poor sphalerite-pyrite-tetrahedrite-polybasite-pearcite-pyrostilpnite-chalcedony-ankerite-dolomite-calcite. Most of the silver was deposited during Stage 4. Fluid inclusions indicate that the veins formed from low temperature, low salinity fluids with a pH of about 4.6.

## REFERENCES

GEOLOGICAL SURVEY OF CANADA, Memoir 123, p. 52.
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GLASMACHER, U., and FRIEDRICH, G., 1992. Volcanic-hosted epithermal-type gold-sulphide mineralization and associated enrichment processes, Sixtymile River area, Yukon Territory, Canada. In: Yukon Geology Vol. 3, Exploration and Geological Services Division, DIAND, p. 271-291.

HOMESTAKE MINERAL DEVELOPMENT CO. LTD, Mar/90. Assessment Report \#092842 by D. Marud.
MORTENSEN, J.K., Geological Compilation Maps of the Northern Stewart River map area Klondike and Sixtymile Districts ( $115 \mathrm{~N} / 15,16 ; 1150 / 13,14$ and parts of $1150 / 15,16$ ). Exploration and Geological Services Division, Yukon, Indian and Northern Affairs Canada, Open file 1996-1 (G).

YUKON EXPLORATION 1985-86, p.369; 1989, p. 126.
YUKON MINING AND EXPLORATION OVERVIEW 1988, p. 39.

# YUKON MINFILE <br> YUKON GEOLOGY PROGRAM WHITEHORSE 

NAME(S): Butler<br>MINFILE \#: 115N 042<br>MAJOR COMMODITIES: $\mathrm{Cu}, \mathrm{Ag}, \mathrm{Pb}, \mathrm{Au}$<br>MINOR COMMODITIES: -<br>TECTONIC ELEMENT: Yukon Tanana Terrane

NTS MAP SHEET: 115 N 15<br>LATITUDE: $63^{\circ} 54^{\prime} 58^{\prime \prime} \mathrm{N}$<br>LONGITUDE: $140^{\circ} 34^{\prime} 35^{\prime \prime} \mathrm{W}$<br>DEPOSIT TYPE: Skarn, vein<br>STATUS: Drilled.Prospect

## CLAIMS (PREVIOUS AND CURRENT)

LITTLE ROUND TOP, RICHMOND, WAIUK, BUSHYBUCK, BEN, CON, RON, LIEF, ROD, PRA, HAR, BOZO

## WORK HISTORY

About a dozen copper claims were staked by H.E. Porter and others in the Fifty Mile Creek area in 1899-1900 but no specific locations were given. The occurrence was staked as Little Round Top (6080), Richmond (6144) and Waiuk (6277) in Aug-Sep/02 by W.J. Donahue, etc. Early development consisted of shallow shafts and trenches prior to 1911.

Restaked in Aug/68 by Connaught ML as part of the Ben \& Con cl (Y15457) which were soil sampled and bulldozer trenched in 1969. In 1972, Moly-Ore ML bulldozer trenched and added the Bushybuck cl (Y65612) under option.

Connaught optioned the property to Shamrock ML in 1974 and transferred it to A.F. Tottrup in 1976. Later that year, J.R. Lerner hand cobbed 4.6 tonnes under a lease from Tottrup, who optioned the claims to Westley ML in 1979. The Ron cl (YA32667) were added to the west in Apr/79 by R. Fransoo and the Lief cl (YA47810) were staked about 2 km west in Oct/79 by D. Foth, who transferred part interest to L. Grimard and J. Trottier. In 1981, the Ron group was transferred to Westley ML.

Restaked as Pra \& Har cl (YA39118) in Apr/87 by Walhala EL then optioned to Croesus Res Inc in Jul/87, which added Bozo cl (Y34061) in Aug/87 and performed mapping, geochem and road construction later in the year and then optioned the property to Kelan Res Inc which conducted geochemical surveys, trenching and 285.3 m of drilling ( 9 holes) in 1988.

In May/89 the Pra, Har and Bozo cl were transferred back to Walhala, which drilled 7 holes ( 411 m ) later that year on this and the adjoining Connaught occurrence (MINFILE 115N 040). In 1990, Tombstone Exploration Ltd purchased a $100 \%$ interest in the property, subject to a $2.5 \%$ net smelter return for Walhala Exploration Ltd. Exploration consisted of bulldozer trenching and geochemical sampling on the skarn in 1990 and 1991, and overburden drilling in 1992. Galleon Mining Ltd purchased a $20 \%$ interest in Walhala in Dec/91.

The 1992 program consisted of auger sampling utilizing a five-ton track-mounted auger. A total of 357 feet was drilled in 36 holes.

## GEOLOGY

The showings occur in hornfelsed Nasina Assemblage schist (unit DMs) and a small Late Cretaceous granodiorite stock (unit lKgdr).

Nine mineralized silver-lead-arsenic vein structures occur in the vicinity of the property, two of which occur on the property. In addition, an epidote-magnetite-diopside-pyroxene skarn containing minor chalcopyrite and pyrrhotite is developed at the contact between a marble bed and the intrusion. A skarn specimen taken by Kelan assayed $0.59 \% \mathrm{~Pb}, 21 \mathrm{~g} / \mathrm{Ag}$ and no Au. Kelan's geochemical survey outlined a 2400 by 300 m area of $\mathrm{Pb}, \mathrm{Ag}, \mathrm{As}, \mathrm{Sb}$ and Au response associated with the magnetite skarn. Soil sampling over the stock to the north of the skarn located a large, moderately intense copper anomaly with two smaller but coincident molybdenum anomalies. Trenching failed to locate

## GEOLOGY (CONTINUED)

any mineralization or significant leaching to explain the anomalies.
A linear lead soil anomaly, some 1300 m in length, is located about 2 km east of the skarn. It was explored in 1967 by a trench which exposed a galena-tetrahedrite-carbonate vein (No. 6 vein) that assayed 5698 $\mathrm{g} / \mathrm{t} \mathrm{Ag}, 4.11 \mathrm{~g} / \mathrm{t} \mathrm{Au}$ and $52.5 \% \mathrm{~Pb}$ across 1.2 m . In 1972 , the No. 6 vein was trenched at regular intervals over a strike length of 400 m with the vein ranging from 15 to 40 cm in width. The best assay was $5500 \mathrm{~g} / \mathrm{t} \mathrm{Ag}, 0.69 \mathrm{~g} / \mathrm{t}$ Au and $24.8 \% \mathrm{~Pb}$ across 30 cm .

About 600 m west of the magnetite skarn, Connaught traced a second vein (No. 8) over a length of 500 m . It contains coarse galena that assayed up to $2218 \mathrm{~g} / \mathrm{t} \mathrm{Ag}, 62 \% \mathrm{~Pb}$ and $0.17 \mathrm{~g} / \mathrm{t} \mathrm{Au}$ across 0.6 m . Kelan sampled this vein in another trench and reported that selected samples returned up to $4151.9 \mathrm{~g} / \mathrm{t} \mathrm{Ag}, 3.95 \% \mathrm{~Pb}$ and $2.13 \mathrm{~g} / \mathrm{t} \mathrm{Au}$.

The 1988 drilling tested the No. 6 vein and the magnetite skarn, but only two economically interesting intersections are reported, the best of which assayed $4.0 \mathrm{~g} / \mathrm{t} \mathrm{Au}$ over 1.67 m .

Overburden drilling in 1992 tested a copper-gold anomaly and intersected altered quartz monzonite. Anomalous copper values of up to 1383 ppm and gold values of up to 40 ppb were encountered.

## REFERENCES

GEOLOGICAL SURVEY OF CANADA, Summary Report 1917, Part B, p. 8.
GEORGE CROSS NEWSLETTER, 3 May/79; 20 Dec/91; 7 Jul/92.
KELAN RESOURCES INC., Jan/88. Prospectus Report \#092116 by B.J. Price.
KELAN RESOURCES INC. Press Release 7 Dec/88.
MINERAL INDUSTRY REPORT 1969-70, p. 32-34.
MORTENSEN, J.K., Geological Compilation Maps of the Northern Stewart River map area Klondike and Sixtymile Districts ( $115 \mathrm{~N} / 15,16 ; 1150 / 13,14$ and parts of $1150 / 15,16$ ). Exploration and Geological Services Division, Yukon, Indian and Northern Affairs Canada, Open file 1996-1 (G).

TOMBSTONE EXPLORATIONS CO. LTD, Apr/93. Assessment Report \#093094 by G. Smith.
WALHALA EXPLORATIONS LTD and RED FOX MINERALS LTD, Feb/89. Assessment Report \#092719.
YUKON EXPLORATION 1989, p. 126; 1990, p. 11.
YUKON MINING AND EXPLORATION OVERVIEW 1988, p. 99.

# YUKON MINFILE YUKON GEOLOGY PROGRAM WHITEHORSE 

NAME(S): Fifty MINFILE \#: 115N 043
MAJOR COMMODITIES: Cu MINOR COMMODITIES: -
TECTONIC ELEMENT: Yukon Tanana Terrane

NTS MAP SHEET: 115 N 15
LATITUDE: $63^{\circ} 53^{\prime} 26^{\prime \prime} \mathrm{N}$
LONGITUDE: $140^{\circ} 37^{\prime} 40^{\prime \prime} \mathrm{W}$
DEPOSIT TYPE: Skarn
STATUS: Anomaly

## CLAIMS (PREVIOUS AND CURRENT)

MOL, TONY

## WORK HISTORY

No specific claim records have been found but old hand pits are present and about a dozen copper claims were staked in the vicinity of Fifty Mile Creek in 1899-1900 by H.E. Porter. Staked as Mol cl (Y56573) by Moly-Ore ML in Apr/70 but no work was done. Restaked as Tony cl (YB4073) in Sep/87 by Croesus Res Inc, which transferred the claims to Walhalla EL in May/89.

## GEOLOGY

Calcareous units within Nasina Assemblage schist (unit DMs) is altered to skarn near Lake Cretaceous granodiorite intrusions (unit 1 Kgdr ). Evidence of old workings, most of which expose traces of malachite in skarn, can be found along a zone some 300 m in length.

## REFERENCES

MORTENSEN, J.K., Geological Compilation Maps of the Northern Stewart River map area Klondike and Sixtymile Districts (115N/15,16; 115O/13,14 and parts of $1150 / 15,16$ ). Exploration and Geological Services Division, Yukon, Indian and Northern Affairs Canada, Open file 1996-1 (G).

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NAME(S): Jove
    MINFILE #: 115N098
MAJOR COMMODITIES
MINOR COMMODITIES:
TECTONIC ELEMENT: Yukon Tanana Terrane
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NTS MAP SHEET: 115 N 10
LATTTUDE: $63^{\circ} 42^{\prime} 42^{\prime \prime} \mathrm{N}$
LONGITUDE: $140^{\circ} 31^{\prime} 34^{\prime \prime} \mathrm{W}$
DEPOSIT TYPE: Unknown
STATUS: Drilled Prospect

## CLAIMS (PREVIOUS AND CURRENT)

JOVE

## WORK HISTORY

Staked as Jove cl (YA01220) in Jun-Sep/77 by Eldorado Nuclear L, which explored with an airborne radiometric survey in 1977, geochem sampling in 1977-79, ground radiometric, EM 16 and resistivity surveys in 1979 and bulldozer trenching and 7 holes ( 945 m ) in 1980. Eldorado changed its name to Eldor Res L in 1982 and Cameco in 1988.

## GEOLOGY

The claims were staked to cover an airborne radiometric anomaly from Pelly Gneiss of the Fiftymile Batholith. Ground surveys located several areas of uranium-rich soils associated with a coarse grained, almost pegmatitic, phase of the foliated Pelly Gneiss. Surface work outlined two narrow, 500 m long, north-trending anomalies (Jove Central and Jove East) on the north side of Glazy Creek, plus several other small anomalies.

Drilling the Jove Central anomaly, which coincides with a uranium-rich spring, encountered meta-autunite filled fractures to a depth of 70 m below surface. No primary uranium minerals were encountered and the meta-autunite appears to have precipitated from the uranium-rich surface water.

## REFERENCES

MINERAL INDUSTRY REPORT 1977 p. 74; 1978, p. 27.
YUKON GEOLOGY PROGRAM AND EXPLORATION 1979-80, p. 272-273.

## YUKON MINFILE YUKON GEOLOGY PROGRAM WHITEHORSE

NTS MAP SHEET: 115 N 9
LATITUDE: $63^{\circ} 38^{\prime} 01^{\prime \prime N}$ LONGITUDE: $140^{\circ} 27$ ' $14^{\prime \prime} \mathrm{W}$ DEPOSIT TYPE: Unknown
STATUS: Anomaly

## CLAIMS (PREVIOUS AND CURRENT)

MAT, SON

## WORK HISTORY

Staked as Mat cl (YA47281) in Sep/79 by a joint venture between Eldorado Nuclear Ltd \& Can Occidental Mls, which performed geochem sampling in 1980. The Son cl (YA47709) were added to the southwest in Sep/79 by Cominco and explored with geochem sampling in 1980. In 1982, Eldorado changed its name to Eldor Res L.

## GEOLOGY

The claims cover uranium soil concentrations in an area underlain by Pelly Gneiss. Three anomalies were outlined on the Eldorado claims. Two occur along uraniferous seeps, while the third lies within a clay-rich paleobasin. A biogeochemical survey on the Son group defined three areas in which spruce twigs exhibit anomalous uranium values.

## REFERENCES

COMINCO LTD, Oct/80. Assessment Report \#090700 by O.P. Lavin.
ELDORADO NUCLEAR LTD AND CANADIAN OCCIDENTAL MINERALS LTD, Jan/81. Assessment Report \#090760 by W.J. Olsson.

YUKON GEOLOGY PROGRAM AND EXPLORATION 1979-80, p. 273.

## YUKON GEOLOGY PROGRAM

WHITEHORSE

NAME(S): Jill
MINFILE \#: 115N 142
MAJOR COMMODITIES: -
MINOR COMMODITIES: -
TECTONIC ELEMENT: Slide Mountain Terrane

NTS MAP SHEET: 115 N 10 LATITUDE: $63^{\circ} 40^{\prime} 01^{\prime \prime} \mathrm{N}$ LONGITUDE: $140^{\circ} 43^{\prime} 44^{\prime \prime} \mathrm{W}$ DEPOSIT TYPE: Unknown STATUS: Uncertain

## CLAIMS (PREVIOUS AND CURRENT)

JILL

## WORK HISTORY

Staked as Jill cl (YB4348) in Oct/87 by M. Elson.

## GEOLOGY

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| PAGE NO: | 1 of 1 |
| UPDATED: | $03 / 10 / 93$ |

YUKON MINFILE

## YUKON GEOLOGY PROGRAM

 WHITEHORSENAME(S): Borden NTS MAP SHEET: 115 N 10<br>MINFLLE \#: 115N 143<br>MAJOR COMMODITIES: -<br>LATITUDE: $63^{\circ} 36^{\prime} 51^{\prime \prime} \mathrm{N}$<br>MINOR COMMODITIES: -<br>TECTONIC ELEMENT: Yukon Tanana Terrane<br>LONGITUDE: $140^{\circ} 38^{\prime} 03^{\circ} \mathrm{W}$<br>DEPOSIT TYPE: Unknown<br>STATUS: Uncertain

## CLAIMS (PREVIOUS AND CURRENT)

CAPE, AGE

## WORK HISTORY

Staked as Cape cl (YB4372) in Oct/87 by M. Elson. A. Savage staked Age 1-32 cl (YB41222) 4 km to the southwest in Jul/92.

## GEOLOGY

The claims are underlain by a Permian or Triassic ultramafic body intruded along a fault which separates Klondike Schist to the southwest from Pelly Gneiss to the northeast.


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APPENDIX 1
References
Geophysical paper/map, 4269G, Sixty Mile, 116 C/2.
Geophysical paper/map, 4268G, Crag Mountain, 115 N/15.
GSC Open File \#1364, Geochemical Survey, NTS 115 N (E 1/2), 1150
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Metallogeny of Volcanic Arcs. 1998 MRDU Short Course ( 2 days).
Intrusion Related Au Mineralization - Alaska and Yukon. 1998 Geoscience Forum Workshop.

Open File 1996-1 (G). Geological compilation maps of north Stewart River area, Klondike and Sixty Mile districts. Maps 115 N/15,16; 115 O/13,14; 115015,16 . Jim Mortensen.

Personal Communication:
Craig Hart, Yukon Geology Program, Whitehorse, YT John Kowalchuck, NuLite Resources, Vancouver, BC.
Norman Blanchard, Whitehorse, YT
Hans Algottson, prospector and placer miner, Dawson City, YT

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# YUKON MINFILE YUKON GEOLOGY PROGRAM WHITEHORSE 

NAME(S): Lerner
MINFILE \#: 115N 039
MAJOR COMMODITIES: $\mathrm{Ag}, \mathrm{Pb}$
MINOR COMMODITTES: Au,Zn
TECTONIC ELEMIENT: Yukon Tanana Terrane

NTS MAP SHEET: 115 N 15
LATITUDE: $63^{\circ} 55^{\prime} 29^{\prime \prime} \mathrm{N}$
LONGITUDE: $140^{\circ} 48^{\prime} 52^{\prime \prime} \mathrm{W}$
DEPOSIT TYPE: Vein
STATUS: Open pit past producer

## CLAIMS (PREVIOUS AND CURRENT)

CCL, JACK, REX, LUBRA, JUDY, PRA, HAR

## WORK HISTORY

Staked as CCL, Jack, etc cl (87620) in Aug/65 by J. Lerner \& M. Chefkoi and optioned to A. Moisey, who enlarged the property and conducted geochem sampling and bulldozing in 1965. The claims were transferred to a new company, Sixty Mile Mg CL, which conducted additional bulldozing and EM surveys in 1966-67 and shipped about 9 tonnes of hand-cobbed ore from the No. 3 Vein in 1966. Mt Crag ML tied on Rex \& Lubra cl (Y15162) to the west in Jun/67 but filed no work.

Connaught ML optioned the property early in 1968 and explored with mapping and geochem sampling, extensive bulldozer trenching and 2 holes ( 112.8 m ) in 1968-69. J. Lerner restaked the No. 3 Vein as Judy 2 cl (Y82496) in May/74 and mined and shipped about 191 tonnes in 1974-76. In Jan/81, he restaked the Rex-Lubra as Judy cl (YA55162), transferred the property to Judy $\mathbf{M g}$ Synd, and sold it to Lougheed Res Inc, which performed mapping and trenching later in the year.

The property was transferred to Bethex E Inc and optioned by Madre Mg L in 1983, and transferred to Judy Res Inc in 1984 and Cumo Res L and X-Pat Dev L in 1986. In 1988, the Judy cl were optioned to Shakwak Exp CL.

Croesus Res Inc partially restaked the property and tied on PRA \& HAR cl (YA89110) in Apr/87 and performed mapping, geochem and geophysical surveys and bulldozer trenching later in the year and drilled 10 diamond drillholes ( 315.8 m ) in 1988 . The Pra \& Har cl were transferred in May/89 to Walhala EL. Tombstone Exploration Lid conducted a drilling program on the Pra cl in 1993.

## GEOLOGY

North-northeast-striking, mesothermal(?) quartz-carbonate-sulphide veins cut Nasina Assemblage schists (unit DMs) and Early Mississippian granitic augen gneiss (unit DMgg) south of Mosquito Creek.

Most of the work has been performed at the northwest locality, called No. 3 Vein. Galena and arsenopyrite, with minor sphalerite, tetrahedrite and boulangerite, form lenses over 12.1 m long and $0.9-1.2 \mathrm{~m}$ thick in quartz veins up to 2.1 m thick in a complex en echelon vein system. The 1966 and 1974-76 shipments were made from a single lens and averaged about $2228.5 \mathrm{~g} / \mathrm{t} \mathrm{Ag}, 60 \% \mathrm{~Pb}$ and $1.03 \mathrm{~g} / \mathrm{t}$ Au. The best 1969 intersection was $130.3 \mathrm{~g} / \mathrm{t} \mathrm{Ag}$ and $2.7 \% \mathrm{~Pb}$ across 0.7 m .

The southeast locality, called the No. 2 and No. 7 Veins, has received less work and is more weakly mineralized.

Glasmacher and Friedrich (1992) recognized three stages of vein formation: (1) quartz-pyrite; (2) arsenopyrite-galena (3) quartz-pyrite-sphalerite-chalcopyrite-freibergite. Precious metals were deposited during the second stage. Fluid inclusion and microprobe studies show that the veins formed from high salinity, low pH fluids at temperatures which were initially as high as $330^{\circ} \mathrm{C}$.

## GEOLOGY (CONTINUED)

The Tony and Pra claims cover the contact between quartzite, limestone and skarn of the Nasina Series, quartz monzonite and Felly Gneiss intruded by Cretaceous granite.

Altered quartz monzonite on the property returned anomalous Cu and Mo values, and magnetite-quartzcarbonate and diopside skarn returned anomalous values in $\mathrm{Bi}, \mathrm{Au}, \mathrm{As}, \mathrm{Ag}$ with $\mathrm{Pb}, \mathrm{Zn}$ and Cu .

## REFERENCES

GEOLOGICAL SURVEY OF CANADA, Paper 67-40, p. 29.
GEOLOGICAL SURVEY OF CANADA, Paper 68-68, p. 32-33.
GEORGE CROSS NEWSLETTER, 3 Jun/88.
GLASMACHER, U., and FRIEDRICH, G., 1992. Gold-sulphide enrichment processes in mesothermal veins of the Sixtymile River area, Yukon Territory, Canada. In: Yukon Geology Vol. 3, Exploration and Geological Services Division, DIAND, p. 292-311.

KELON RESOURCES AND CROESUS RESOURCES INC., Nov/88. Yukon Exploration Incentive Program Report \#093109 by B.J. Price (EIP88-036).

LOUGHEED RESOURCES INC., Feb/81. Engineer's Report by R.T. Heard.
MINERAL INDUSTRY REPORT 1969-70, p. 32-33.
MORTENSEN, J.K., Geological Compilation Maps of the Northern Stewart River map area Klondike and Sixtymile Districts (115N/15,16; 115O/13,14 and parts of 1150/15,16). Exploration and Geological Services Division, Yukon, Indian and Northern Affairs Canada, Open file 1996-1 (G).

YUKON GEOLOGY PROGRAM AND EXPLORATION 1981, p. 224.

## YUKON MINFILE YUKON GEOLOGY PROGRAM WHITEHORSE

NAME(S): The
MINFILE A: 115 N 115
MAJOR COMMODITIES: -
MINOR COMMODITIES: -
TECTONIC ELEMENT: Yukon Tanana Terrane

NTS MAP SHEET: 115 N 15
LATITUDE: $63^{\circ} 57^{\prime} 04^{\prime \prime} \mathrm{N}$
LONGITUDE: $140^{\circ} 50^{\prime} 17^{\prime \prime} \mathrm{W}$
DEPOSTT TYPE: Unknown
STATUS: Uncertain

## CLAIMS (PREVIOUS AND CURRENT)

THE, AIME

## WORK HISTORY

Staked as The cl (Y15906) in Jun/69 by Klondike EL, which bulldozer trenched in 1969-71. The property was transferred in 1972 to E. Faucher, L. Grimard \& J. Trottier, who trenched in 1973, 1976 and 1980 and enlarged the property in 1979. In Aug/84 M. Grimard restaked the claims as Aime cl (YA87694) and performed trenching in 1986 and mapping and geochem sampling in 1987.

## GEOLOGY

The claims are underlain by Nasina Assemblage schist and amphibolite (units DMs and DMasc) and have been explored for gold and silver veins.

## REFERENCES

MORTENSEN, J.K., Geological Compilation Maps of the Northern Stewart River map area Klondike and Sixtymile Districts ( $115 \mathrm{~N} / 15,16 ; 1150 / 13,14$ and parts of $1150 / 15,16$ ). Exploration and Geological Services Division, Yukon, Indian and Northern Affairs Canada, Open file 1996-1 (G).

## YUKON MINFILE

YUKON GEOLOGY PROGRAM WHITEHORSE

NAME(S): Bedrock
MINFILE : : 115N 123
MAJOR COMMODITIES: Ag MINOR COMMODITIES: $\mathrm{Cu}, \mathrm{Au}$
TECTONIC ELEMENT: Yukon Tanana Terrane

NTS MAP SHEET: 115 N 15
LATITUDE: $63^{\circ} 58^{\prime} 31^{\prime \prime} \mathrm{N}$
LONGITUDE: $140^{\circ} 53^{\prime} 15^{\circ} \mathrm{W}$
DEPOSIT TYPE: Vein
STATUS: Showing

## CLAIMS (PREVIOUS AND CURRENT)

MOLY, SAPPO, NEY

## WORK HISTORY

Staked as Moly cl (YA65451) in May/83 by Piedmont EL and Last Frontier Ent L, which added Sappo cl (YA88192) to the SW and NE in Oct/86. L. Mollot tied on MM cl (YA88208) to the northwest in Oct/86 and performed mapping and geochemical sampling in 1987 and 1988.

The Ney cl (YB4742) were tied on north of the Sappo claims in Feb/88 and were explored by mapping, geochem sampling and trenching before being transferred to J. Bergvinson in Feb/89. The Moly claims were transferred to Last Frontier Ent L in May/88.

## GEOLOGY

A south-dipping thrust fault is inferred to cross the area, separating Nasina Assemblage schist and amphibolite (units DMs and DMasc) in the hangingwall from rusty-weathering quartz-muscovite of the Permian Klondike Schist Assemblage (unit Pks) in the footwall. A thrust-fault-bounded lens of serpentinite occurs along the fault to the east of the occurrence. A vuggy quartz carbonate vein containing no visible sulphides outcrops in the hangingwall of the fault. It is 1 m wide, strikes 140 and dips 38 S . A specimen from the vein assayed 992.5 $\mathrm{g} / \mathrm{t} \mathrm{Ag}$ with 310 ppb Au and 1140 ppm Cu .

## REFERENCES

MORTENSEN, J.K., Geological Compilation Maps of the Northern Stewart River map area Klondike and Sixtymile Districts ( $115 \mathrm{~N} / 15,16 ; 1150 / 13,14$ and parts of $1150 / 15,16$ ). Exploration and Geological Services Division, Yukon, Indian and Northern Affairs Canada, Open file 1996-1 (G).
(1) 7

BEDROCKCR
BUDGET PROTECT(GRASSROOOTS)

- CLAIMS STAKING foclain $\times 30 / \mathrm{d}$ \$ 1200.00
-GAN (gme $4 \times 4$ ) $1500 \mathrm{~km} x^{5}, 721 \mathrm{~km} 630.00$
$600+600+120+120 \mathrm{t}$ ?
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\&/ASOIMONTh $\times 25 \%$
- DIEM 25 DALS $\times 35$ \& 85.00
- RADIO RENTHL LSEL OWNED

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-ASSAKS
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## GEOLOGICAL LEGEND

## NASINA Assemblage

## Late (?) Devonian to Early Mississippian

DMasc medium to dark weathering chlorite (+- biotite) schist, amphobolite and garnet amphibolite

DMsqc graphitic Nasina Assemblage undifferentiated (mainly pale to dark gray weathering, fine grained quartzite, quartz-muscovite (+-chlorite) schist, locally garnetiferous)

DMs medium to coarse grained mica schist, commonly garnetiferous, amphibolite, minor quartzite

Meta Plutonic Rocks

## Middle to Late Permian

DMgg Moderately to strongly foliated K-feldspar augen-bearing quartz monzonite to granite gneiss (S. Fifty Mile Batholith, Mt. Burnham orthogneiss)

Klondike Schist Assemblage
Late Devonian to Early Mississippian
Psqm rusty weathering quartz-muscovite schist
^. A. - A thrust contact
(defined, approximate,assumed)
$\triangle \triangle \triangle \triangle ? \triangle$
low-angle normal (?) fault
(defined, approximate,assumed)

- 123 Minfile Occurrence

| Summary of Work - Bedrock Creek Area |  |  |
| :---: | :---: | :---: |
| GEOLOGICAL LEGEND from Open File 1996-1(G) |  |  |
| J.P. Ross |  |  |
| SCALE: | FFlL: legend | Date |
| Nis: | DRAWN: $0_{\text {xic }}$ | Figure 40 |

BEDRO CK CRN PROTECT $200^{\circ}$



(2)

EUREKA DONE PROTECT
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PROJECT BOUNDARIES.
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(3) Cur epa if. Gas Av, As, Sb, tHy que silt, anomolic. Eurefá Dómé Hes 3 drainages. Eivekar-lotaf placer gold and silt anomoliér. Child Gulch placer gold and
(2) 2 $\angle 2000$

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REFERENCES
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YUKON EXP $F$ GEOL 1999 p.15tl6.
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KEN GALAMBOS Y MI Geol.
YUKON PLACER REPGRE

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(Float) $75 \times 24$

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- REPORT WRITE UP

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## YUKON MINFLLE <br> YUKON GEOLOGY PROGRAM WHITEHORSE

NAME(S): Eureka<br>MINFILE \#: 1150057<br>MAJOR COMMODITIES: -<br>MINOR COMMODITIES: -<br>TECTONIC ELEMENT: Yukon Tanana Terrane

NTS MAP SHEET: 115010<br>LATITUDE: $63^{\circ} 32^{\prime} 29^{\prime \prime} \mathrm{N}$<br>LONGITUDE: $138^{\circ} 51^{\prime} 03{ }^{\prime \prime} \mathrm{W}$<br>DEPOSIT TYPE: Unknown<br>STATUS: Anomaly

## CLAIMS (PREVIOUS AND CURRENT)

JUMBO, SKUKUM, PERSHING, SILVER KING, BLACK HILLS LODE, REKA, CHI, GO, CG, CLARA, EG, BP, BHG, CLARA B

## WORK HISTORY

Staked as Jumbo cl (4608) in May, 1900 and as Skukum cl (1876) in Jun/01. Other claims in this area include Harriet Smith cl (1262) in Oct/08. The Pershing and Jumbo cl (13238) were staked to the south, on the ridge between Ida and Sprague Pups, in Jul/20.

Other nearby claims in the Black Hills Creek Valley include Silver King cl (12197) in Dec/11 by H.M. Peck, who trenched in 1912 (between Golden Gate and 28 Pups), and Black Hills Lode cl (12433) in Aug/14 by H. Porter, who trenched later in the year (between Golden Gate and Carpent Pups).

The area was restaked as Reka cl (YB4992) in May/88 by Dawson Eldorado ML and Wealth Res L, which mapped and soil sampled in 1989. F. Dorward staked CHI cl (YA89771) 3 km to the south in Aug/87 and trenched in 1988-89.

Restaked Sep/92 as CG 1-36 cl (YB41469) and GO cl (YB41153) by J.S. Christie. Christie added 26 EG claims (YB42195), 6 BP claims (YB44805), 26 BHG claims (YB45284) and two CG fractions in June, August and September, 1993. During July and Aug/93 Christie explored with soil geochemistry surveys on the CHI, CG, GO, BHG, BP and EG claips; and trenched and sampled on the CG claims. In Jul/95 T. Christie restaked EG cl 1-6, 10 (YB53947). The following month Christie carried out a soil sampling program overtop EG claims located on the upper left fork headwaters of Eureka Creek.
B. Harris and D. Moore staked Clara 1-58 cl (YB41533) 1 km to the west in Sep/92 for Pearl Petroleum Corp., which performed geological mapping, and soil and rock sampling.
C.R. Little added 95 Clara B claims (YB44921) in Jul/93. Pacific Mariner Explorations Ltd and Wealth Resources Ltd optioned the Clara claims in Sep/93. P. Southam staked Clara B cl 101-106 (YB52726) in Sept/94. C.Little later added Clara B cl 107-130 (YB52853) to the claim group in Oct/94. In the summer of 1995 the companies carried out trenching and soil and rock sampling on the claims.

Wealth Resources registered a $50 \%$ interest in Clara B cl 1-12 (YB44921) and 15-100 (YB44933) in Apr/95. Later in the same month a $100 \%$ interest in Clara B cl 107-112(YB52853), 117-123 and 128-130 was transferred to Wealth Resources. In the summer of 1995 Wealth and Pacific Mariner carried out further trenching, prospecting and VLF-EM geophysics on the Clara B claims located near the junction of the left and right forks of Eureka Creek.

## GEOLOGY

The Reka claims are underlain by thin-bedded Nasina Series quartzite. Breccia zones are associated with three major north to northwest fractures which cut across the property. The breccias consist of quartzite fragments cemented by limonite and silica. Where the most prominent fracture crosses the right fork of Eureka Creek, a zone of graphitic gouge 6 m wide is flanked by bleached, argillized, and pyritized wallrocks.

Dawson Eldorado's soil sampling in 1989 outlined three anomalous areas. (1) Samples across the central breccia zone returned values up to 520 ppm As and 180 ppb Au . (2) Values up to 496 ppb Au were obtained from the head of the right fork where the westernmost lineament crosses the ridge. Baritic quartz float

| MINFLLE: | 1150057 |
| :--- | ---: |
| PAGE NO: | 2 of 2 |
| UPDATED: | $02 / 20 / 97$ |

## GEOLOGY (CONTINUED)

found in this area contained up to 208 ppb Au . (3) Soil samples adjacent to the easternmost lineament returned values up to 155 ppb Au.

Pearl Petroleum's 1993 field program identified several gold in soil anomalies, the best of which strikes north-northeast and is at least 1.25 km long with an average width of 110 metres.

Reconnaissance soil sampling on the EG claims outlined a 1067 m long intermittent $\mathrm{Pb}-\mathrm{As}-\mathrm{Sb}-\mathrm{Hg}$ anomaly southwest of the headwaters of Eureka Creek, while soil sampling on the BP claims outlined two $\mathrm{Au}-\mathrm{Pb}$ anomalies 150 m upslope from Barite Pup. Soil sampling on the BHG claims outlined several spot $\mathrm{Au}+/-\mathrm{Pb}$ and As anomalies. The 1995 soil survey tested the area northeast of the 1994 soil anomaly. The survey did not return any anomalous results.

Wealth and Pacific Mariners' 1994 program followed up targets identified the previous year. A total of 368 soil samples and 15 rock samples were collected from several grids and 3 new anomalous zones were identified. The best soil sample returned 556 ppb Au and 0.3 ppm Ag . Five trenches were dug in the fall to test previously identified anomalies. Two of the trenches encountered permafrost and were abandoned. The remaining 3 trenches exposed fault gouge zones. The best result was obtained from grey colored graphitic fault gouge located in trench \#5, which assayed 640 ppb Au.

In 1995 Wealth and Pacific Mariner continued the exploration program begun the previous year. The companies carried out 3 short lines of VLF-EM geophysics across the left fork of Euteka Creek southwest of the junction of the left and right forks. Two conductors were outlined overtop water-logged placer tailings. Two trenches were dug exposing sericitic quartzite. Samples collected from the trenches returned background levels for Au. Trenches also tested possible fault zones. Trench $95 E C 1$ tested a fault zone consisting of extensive graphitic schist, blocky and broken quartzite and a 1 m wide quartz vein. Samples from this zone and all other trenches, returned background levels for all elements.

## REFERENCES

DAWSON ELDORADO MINES LTD AND WEALTH RESOURCES INC., Sep/88. Assessment Report \#092720 by P.D. Van Angeren.

GEORGE CROSS NEWSLETTER, 3 Sep/93.
J.S. CHRISTIE, AND F. DORWARD, Sep/93. Assessment Report \#093132 by J.S. Christie.
J.S. CHRISTIE, Jul/95. Assessment Report \#093279 by J.S. Christie.
J.S. CHRISTIE, Jul/95. Assessment Report \#093280 by J.S. Christie.
J.S. CHRISTIE, Feb/96. Assessment Report \#093387 by J.S. Christie.

PEARL PETROLEUM CORP., Sep/93. Assessment Report \#093165 by P. Southam.
WEALTH RESOURCES LTD, Apr/95. Assessment Report \#093290 by P. Southam.
WEALTH RESOURCES LTD, Dec/95. Assessment Report \#093348 by P. Southam.
YUKON EXPLORATION 1989, p. 128-129.

YUKON MINFILE
YUKON GEOLOGY PROGRAM WHITEHORSE

NAME(S): Armenius
MINFILE \#: 1150118
MAJOR COMMODITIES: Au
MINOR COMMODITTES: -
TECTONIC ELEMENT: Yukon Tanana Terrane

NTS MAP SHEET: 115016
LATITUDE: $63^{\circ} 36^{\prime} 19^{\prime \prime} \mathrm{N}$
LONGITUDE: $138^{\circ} 51^{\prime} 52^{\prime \prime} \mathrm{W}$
DEPOSIT TYPE: Vein
STATUS: Showing

## CLAIMS (PREVIOUS AND CURRENT)

ARMENIUS, AJM, BUFF, GOPHER, MARMOT, CLARA B,

## WORK HISTORY

Staked as Armenius, etc. claims (6148) in September, 1902 by Herman Wohlgethan and T. Chisholm, who trenched annually until 1905. A. McKenzie and associates tied on Joseph, etc. claims (6613) in April, 1903.

Restaked as AJM claims (YA89767) in August, 1987 by United Keno Hill Mines Ltd. D. Hermanutz and K. Daunt staked Buff claims (YB17654) 2 km to the northeast in August, 1988 and added more Buff claims and mapped in 1989. G. Daunt staked Buff 1-6 (YB52312) 2 km to the north and Buff 19-20 (YB52318) and Buff 25-28(YB52320) overtop of the showing in July/94. N. Loveless staked Nona cl 1-2 on the northeast boundary of Buff 1-6 claims in the same month.

In Aug/94 A. Woodsend staked Gopher cl 1-14 (YB52367) and Marmot cl 1-16 (YB52535) 5 km east of the occurrence. In Oct/94 Woodsend added Gopher cl 15-22 (YB52885).

In Oct/94 K. Daunt added Buff cl 7-10 (YB52877) and C. Little staked the Clara B cl 107-130 (YB52853) south and west of the Buff cl. In 1995 Daunt carried out a small prospecting and rock sampling program on the Buff claims.

## GEOLOGY /

The original staking was prompted by reports of a quartz "ledge" 18 m wide and 3 to five kilometres long. Samples collected by Wolgethan from a depth of 12 m in his shaft were reported to assay $\$ 284$ per ton (gold at $\$ 20 / o z$ ). According to the newspaper account, specimens were friable and contained free gold.

Hermanutz and Daunt uncovered a wide gossan while placer mining near the mouth of Eureka Creek. Quartz-sericite schist and biotite schist contain pyritic quartz stringers and graphite in an east-trending clay-altered, shear zone. Visible gold has reportedly been panned from crushed samples.

Daunt assayed 27 rock samples from a variety of rock types on the Buff claims. His best assay was 0.34 $\mathrm{g} / \mathrm{t} \mathrm{Au}$, from a quartz vein in quartz schist.

## REFERENCES

DAUNT, K., Aug/89. Assessment Report \#092789 by K. Daunt.

DAUNT, K., Oct/95. Assessment Report \#093444 by K. Daunt.
YUKON EXPLORATION 1989, p. 128-129
YUKON SUN, 4 Apr/03.

## YUKON MINFILE YUKON GEOLOGY PROGRAM WHITEHORSE

NAME(S): Donna
MINFILE \#: 1150153
MAJOR COMMODITIES: -
MINOR COMMODITIES: -
TECTONIC ELEMENT: Yukon Tanana Terrane

NTS MAP SHEET: 11509
LATITUDE: $63^{\circ} 28^{\prime} 00^{\prime \prime} \mathrm{N}$
LONGITUDE: $138^{\circ} 49^{\prime} 00^{\prime \prime} \mathrm{W}$
DEPOSIT TYPE: Unknown
STATUS: Uncertain

## CLAIMS (PREVIOUS AND CURRENT)

DONNA, GOOD, HB

## WORK HISTORY

D. Laurenson staked the Donna claims (YB39500) in 1990. The Good 1-2 cl (YB44879) were staked nearby at the mouth of Morris Gulch by C.R. Little, in Jul/93, who transferred them to Klondike Reef Mines in March/94.

In Jul/95 R. Beckett staked HB cl 1-32 (YB53915) 8 km to the east.

## GEOLOGY

The claims straddle the upper part of Black Hills Creek and were probably staked in conjunction with placer mining.



View of the area along Dominion Creek mined by J. Erickson and H. Leidtke during 1982. It is just downstream from tailings left by Yukon Consolidated Gold Corporation Dredge 6.
supported sandy gravel, 2.4 metres ( 8 feet) of massive silty brown matrix-supported gravel with the few clasts present oriented on end, and a layer of coarse boulders up to 90 cm ( 3 feet) in diameter. Bedrock is gneissic granodiorite.

Work at this property was done by J. Erickson and H. Liedtke during 1982. They used a D8H bulldozer, and one 966 loader to mine two cuts totalling 4,650 square metres ( 50,000 square feet). The deposits were thawed, and problems were encounted with groundwater flooding the cut.

Gold recovered from this location is reported to have a fineness of 841 . It is fine-grained, and appears worn. Some grains of gold have quartz adhering to them. In addition to gold, magnetite, garnet, and a small amount of pyrite and rutile are recovered from the deposits at this site.

## Territorial Gold Placers Ltd. Kelsey Explaration Ltd. <br> 1978,-1979,-1980 <br> 1981, 1982

115010 (Klondike)

This property is situated along the left limit of Eureka Creek, approximately 450 metres (1,500 feet) upstream from its confluence with Indian River. Deposits in the broad valiey are 5.2 to 7.6 metres ( 17 to 25 feet) thick, and consist of 1.5 to 3 metres ( 5 to 10 feet) of black muck overlying 3.7 to 4.6 metres ( 12 to 15 feet) of gravel. Bedrock is blocky weathering to badly decomposed schist.

Work on the property in 1978 was done by Territorial Gold Placers Ltd. One D8 bulldozer was used. The company continued work in 1979, when two D8 bulldozers were used. There were $15,750 \mathrm{gm}$ ( 506 ounces) of gold recovered from the 23,550 cubic metres $(30,800$ cubic yards) of material mined. Kelsey Explorations Ltd. took over the property in 1980. At the beginning of the season, eight people worked at the site, but the crew was enlarged to 12 people part way through the season. Work was done on two shifts, with two D8H bulldozers, one D8K bulldozer,
and one 627B scraper-loader. Tailings from 1974 mining operations, and previously unworked material were mined from two cuts totalling 9,300 square metres ( 100,000 square feet). The material mined was processed through a "Ross" sluice box at a rate of 1,530 cubic metres ( 2,000 cubic yards) per day. Water for sluicing was recirculated from a settling pond. Work continued in 1981 when up to 40 employees mined on two shifts using two D8 bulldozers, one D9 bulldozer, one 627B scraper-loader, and three 637 scraper-loaders. The black muck and some gravel were stripped. The rest of the gravel was mined from two large cuts with the scraper-loaders, and transported to grizzly, through which it was dumped into a hopper. A conveyor belt transported gravel from the hopper to the sluice box at a steady rate. The "Ross" sluice box used in 1981 was larger than the one used in 1980, and processed aproximately 305 cubic metres ( 400 cubic yards) of material per hour. Thirty-five employees worked at the property in 1982, using the same equipment as in 1981 plus one additional D8 bulldozer, and one additional Fiat-Allis 31 bulldozer. Drill results from 1952 test work were used to plan work at this location.

| Hakkon Placers |  | (54) |
| :---: | :---: | :---: |
| Eureka Creek 1 |  | 115010 |
| 1978,-1979,-1980 | -1 | (Klondike) |
| 1981, 1982 |  | $63034{ }^{\prime} \mathrm{N}, 138054^{\prime} \mathrm{W}$ |

This property is situated along the central portion of the Right Fork of Eureka Creek. Deposits present are 6 to 7.3 metres ( 20 to 24 feet) thick, and consist of 1.2 to 2.4 metres ( 4 to 8 feet) of black muck overlying 4.9 metres ( 16 feet) of brown sandy gravel. Bedrock is blocky weathering schist. Numerous old shafts from underground workings occur alōḡ this part öf Eureka Creek.

Work at this location was begun by Hakkon Placers in 1978. One D8 bulldozer was used to mine. Water for sluicing was gravity-fed. Work in 1979 was done using two D8H bulldozers. The black muck and all but the lowermost 1.5 to 2.4 mestres ( 5 to 8 feet) of gravel were stripped. The remaining gravel and .6 metres ( 2 feet) of bedrock were mined and sluiced. Five people worked using two D 8 H bulldozers and a D9G bulldozer in 1980. Approximately 20,650 cubic metres ( 27,000 cubic yards) of material were stripped, and 17,575 cubic metres ( 23,000 cubic yards) of gravel were mined and sluiced from two cuts. Water for sluicing was recirculated from a settling pond. Work continued in 1981 and 1982, using the same equipment and methods as in 1980.

Gold from Eureka Creek is reported to have a fineness of 677 to 745 .

Consolidated Mines Yukon Ltd.
Eureka Creek
1978, 1979, 1980
115010 (Klondike) 1981, 1982 630 34'N, $138051^{\prime} \mathrm{W}$

This property is situated along the middle portion of the Left Fork of Eureka Creek. Deposits consist of black muck overlying brown gravel. Bedrock is chist.

Consolidated Mines Yukon Ltd. worked at this location each season from 1978 to 1982. Black muck and
some gravel were stripped, and the remaining gravel was mined and processed through a "Ross" three channel sluice box.
D.Groner

Sulphur Creek
1980
115010
(Klondike) $63041 \mathrm{~N}, 138^{\circ} 46^{\prime} \mathrm{W}$

This property is situated along the gentle right limit slope of Sulphur Creek, approximately 6.4 km ( 4 miles ) upstream from its confluence with Dominion Creek.

Work was done in previously unmined deposits along the margin of old dredge tailings in 1980. A small bulldozer, and a small backhoe-loader were used to mine a cut 15 metres ( 50 feet) wide and 30 metres ( 100 feet) long. From 6 to 3 metres ( 2 to 10 feet) of colluvium and fine gravel were removed from the cut. Bedrock was not reached. A sluice box 60 cm ( 24 inches) wide, and 4.9 metres ( 16 feet) long was used to process the material mined. Water for sluicing was pumped from a pond in the dredge tailings adjacent to the cut.
J. Wierda
(57)
G. Kerr
P. Favron

Sulphur Creek
[981, 1982
This property is located along the gentle right limit slope of Sulphur Creek, approximately 7 km ( 4.4 miles) upstream from its confluence with Dominion Creek. Deposits are 4.3 to 4.9 metres ( 14 to 16 feet) thick, and consist of 3.7 metres ( 12 feet) of black muck with coarse pieces of wood including stumps, overlying .6 to 1.2 metres ( 2 to 4 feet) of clast-supported gravel with rounded clasts. Bedrock is decomposed chlorite schist.
J. Wierda and G. Kerr Worked at this property in 1981. They used a D6 bulldozer to do stripping, and a small amount of mining. P. Favron began work at the property late in 1981, using a Terex 8230 bulldozer to do stripping. He continued work with the same equipment in 1982, and stripped and mined a cut of approximately 4,875 square metres ( 52,500 square feet). He processed the gravel through a three channel sluice box, and found that the gold recovery rate in the centre channel increased significantly when he installed punch plate over the riffles along its full length.
H. Krueger

Sulphur Creek
1978, 1979, 1980
1981, 1982

This property is situated along the right limit of Sulphur Creek, approximately 8.6 km ( 5.4 miles) upstream from its confluence with Dominion Creek. Deposits are 9.1 to 9.8 metres ( 30 to 32 feet) thick, and consist of 3 to 4.9 metres ( 10 to 16 feet) of black muck with abundant tree remains, overlying 1.2 to 3 metres ( 4 to 10 feet) of sand with some bouldery sections, 1.2 metres ( 4 feet ) of barren
brown gravel, and 2.4 metres ( 8 feet) of gold-bearing quartz-rich gravel analagous to the White Channel gravel of Hunker and Bonanza Creeks. The deposits lie adjacent to tailings from former dredging operations.
H. Krueger worked at this property in 1978 using a D7E bulidozer, a 955 K tracked loader, and a dragline with 1.3 cubic metre ( 1.75 cubic yard) capacity. He stripped and mined a cut of 350 square metres ( 3,750 square feet). He continued work using the same equipment in 1979, and stripped and mined a cut of 450 square metres ( 4,850 square feet). In 1980, he used the same equipment to enlarge the cut by 2,450 square metres ( 26,400 square feet). He used a single channel sluice box in 1978 and 1979, but modified it by adding undercurrents to each side in 1980. Mr. Krueger continued to use the same equipment to mine at this location in 1981 and 1982.

## Granville Joint Venture

Teck Crop.
Sulphur Creek
1978, 1979, 1980
1981, 1982
This property is situated along the middle portion of Sulphur Creek, just upstream from the limit of dredging done by Yukon Consolidated Gold Corporation Dredge 8, which stopped work in 1963. Deposits are from 9.1 to 15.2 metres ( 30 to 50 feet) thick, and consist of 5.5 to 10.7 metres ( 18 to 35 feet ) of black muck overlying 0 to 3.7 metres ( 0 to 12 feet ) of clast-supported gravel with most clasts of chlorite schist, and .9 to 3.7 metres ( 3 to 12 feet) of quartz-rich cross-bedded sand and gravel analagous to the White Channel gravel of Hunker and Bonanza Creeks. The gravel with the chlorite schist clasts occurs as a wedge at the mouth of the left limit tributary downstream from Brimstone Gulch. Bedrock is blocky weathering to badly decomposed quartz-sericite schist. Although the area has


Stripping at the Granville Joint Venture property on Sulphur Creek in 1982. The area in the photograph (and beyond) has been stripped of black muck by hydraulicking. The bulldozers and loaders are completing the stripping by removing tree fragments and boulders from within the black muck which were not washed away by the water.

overlying 4 feet of sand and gravel, and 8 feet of dark grey gravel. The deposits are thawed. Bedrock is variable, and ranges from blocky to highly fragmented.

Work in 1983 was done on a single shift, with a crew of 4 mining, and 2 working in camp. A Cat D 8 H and a Cat D8K bulldozer were used for stripping and mining. Three cuts, on which stripping was begun in 1982, were mined. The dark grey gravel and three to four feet of gravel were sluiced. When sluicing, one bulldozer fed one of two cat 966 loaders, which in turn fed the sluicing plant. For long pushes, one bulldozer fed the next, which then fed the loader. A Cat 463 E pull scraper, with a capacity of 16 to 24 cu.yd. was also used to move pay gravel in long haul situations. The sluicing plant consisted of a 12 by 12 foot vibrating screening deck and single run sluice. The deck, which screened to minus $3 / 4$ inch, was powered by a modified 6 cylinder Ford truck sitting adjacent to the plant. Power passed through the standard 3 speed transmission, in high gear, through the drive shaft, and to the screening deck. The sluice run was 48 inches wide and 40 feet long, and was lined alternately with Hungarian riffles and punch plate over expanded metal. Astro turf was used under the expanded metal throughout the sluice run. Approximately $100 \mathrm{cu} . \mathrm{yd}$. of material were processed per hour. Water for sluicing was provided at a rate of 2,500 igpm from a large seepage pond upstream of the operation by a 10 by 10 inch Gorman-Rupp trash pump. Tailings were removed from the area of the sluicing plant by the second Cat 966 loader. A Northwest dragline with 2.5 cu.yd. bucket was used for miscellaneous work on the property. Work continued at the property in 1984. One person was added to the crew, and work was carried out on two 8 hour shifts. Problems with drainage in the cut were encountered because the valley was very broad, with a shallow gradient in the area of the mine, and the deposits were not frozen. Groundwater seeped, into the pit, and would not drain away. A pump was used to remove the excess water at a rate of 875 igpm.

Gold from this property is reported to be finegrained and flat, and to have a fineness of 841 . It appears well travelled.
R. Allen

Consolidated Mines (Yukon) Ltd.
Eureka Creek
1983, 1984

115010 (Klondike) $63^{\circ} 34^{\prime} \mathrm{N} 138^{\circ} 51^{\prime} \mathrm{W}$

This Consolidated Mines (Yukon) Ltd. property is located along the middle part of the Right Fork of Eureka Creek. Deposits present consist of 11 feet of frozen black muck with silt and sand layers overlying 4 to 8 feet of gravel and decomposed chlorite schist bedrock. The property was hand mined between 1898 and 1920 , and was mined by machinery between 1959 and 1982.
R. Allen and J. Allen began work at this site in July, 1983. They used a Cat D8-46A bulldozer to do all work. They began by mining tailings from the earlier bulldozer mining operations, and then mined one cut 14 feet wide and approximately 1,000 feet
long along the right limit of the creek. The entire section of gravel and 1 to 4 feet of bedrock were sluiced in a 3 channel modified model 200 Ross sluice box at a rate of 150 to $200 \mathrm{cu} . \mathrm{yd}$. per hour. The dump box was lined with punch plate, screening material to approximately $1 / 2$ inch before delivery to the side runs for sluicing. The side runs were 48 inches wide and 30 feet long, and were lined with $11 / 4$ inch riffles. Of the gold recovered, $85 \%$ was recovered in the side runs. The main run, which measured 32 inches wide and 30 feet long, was lined with 3 inch riffles throughout. A small section of punch plate was placed over the riffles at the upper end of the main sluice run. Long bristle, wiry Monsato turf was used under the riffles in all the runs. The gradient of the three runs was 3 inches to the foot. Water for sluicing was pumped at a rate of 3,000 igpm from a recirulation/settling pond by a 10 by 10 inch Pierce pump powered by a 6 cylinder diesel Cummings engine. Work continued at the property in 1984, when a cut 50 feet wide and 500 feet long was mined in old tailings.

Gold recovered from this property is reported to be of fine to medium size, and to have a fineness of 680 to 730 .

Tundra Contracting Eureka Creek
1983, 1984
115010
(Klondike)
$63^{\circ} 34^{\prime} \mathrm{N} 138^{\circ} 52^{\prime} \mathrm{W}$

This property is located along the middle part of the Left Fork of Eureka Creek. Deposits present consist of approximately 20 feet of frozen black muck overlying 4 feet of brown gravel. Bedrock is schist. Extensive work was done on the property by early underground minerst There is an average of three-shafts per claim length on the property. Up to 60\% of the-gravel present_was_mined_out of_the drifts by the early workers.

Work on the property during 1983 was done using a Cat D8K bulldozer to strip ground, and a Cat 980 loader to feed the sluicing plant. A cut 75 feet wide and 500 feet long was mined. An effort was made to follow the old underground workings when mining with the cut. The entire section of gravel and 4 feet of bedrock were sluiced. The sluicing plant consisted of 2 vibrating screening decks, with 1 inch and $1 / 2$ inch holes. Power was provided to the screen decks by a portable Cat 50 KVA generator. Oversize and undersize from the $1 / 2$ inch screen deck were sluiced separately in two sluice runs measuring 48 inches wide and 20 feet long each. Water for sluicing was recirculated from a downstream recyclesettling pond by a 6 by 10 inch Cornell pump at a rate of 2,200 igpm. The plant was reported to have a processing capacity of 200 cu.yd. per hour. Tailings were removed by the D8K bulldozer. Work at the site continued during 1984.

It was reported that 40 per cent of the gold recovered from this site was 12 mesh (. 065 inches in diameter) or coarser.

1983-84

(62)

115010
(Klondike)
$63^{\circ} 34^{\prime} \mathrm{N}$ 138054'W
This property is located along the central part of the Right Fork of Eureka Creek, immediately downstream from a major right limit tributary. The valley bottom is approximately 150 feet wide, and the valley sidewalls are relatively steep. Deposits present in the centre of the valley are approximately 20 to 24 feet deep, and consist of 4 to 8 feet of frozen black muck overlying 12 to 16 feet of sandy gravel. The deposits thicken towards the. valley walls. Bedrock is blocky-weathering_schist; finderground workings left by early miners, including rooms 10 feet square, are common on the property.

Work in 1983 was done on a single shift, with four people mining, and one working in camp. They used a Cat D9H bulldozer for stripping and stacking the black muck while frozen, and for feeding gravel for sluicing to two Cat D8H bulldozers. The D8H bulldozers fed the sluicing plant at a rate of 125 cu.yd. per hour. The sluicing plant consisted of a dump box 27 feet long and a single sluice run 28 feet long. The dump box was lined with expanded metal and coco matting, and the sluice run was lined with 2 inch riffles and coco matting. Punch plate was set over the riffles in the top 8 feet of the sluice run. The gradient on the sluice run was 2 $1 / 2$ inches to the foot. Eighty per cent of the gold recovered was reportedly recovered in the dump box. Water for sluicing was provided at a rate of 2,500 igpm by a 10 by 12 inch pump powered by a Cat 3208 diesel engine. Effluent was settled in two large in-stream ponds spanning the valley width below the mining operation. Tailings were ramped by the D 9 H bulldozer on both sidewalls of the valley. A cut 150 to 175 feet wide, encompassing the entire valley bottom, and 700 feet long was mined. All the gravel and 3 feet of bedrock were sluiced. At the end of the season, stripping of the 1984 cut was begun. Work continued at the property during 1984 in a cut 1,000 feet long. Approximately $50,000 \mathrm{cu} . \mathrm{yd}$. of material were stripped, and an additional 50,000 cu. yd. of material were sluiced.

Gold from this property is reported to be almost entirely fine grained, and to have a fineness of 660. Gold recovered downstream from the current operation had a fineness of 690. Some crystalline gold is present?
H. Kruger

Sulphur Creek 1983, 1984

This property is located along the right limit of Sulphur Creek, approximately 5.5 miles upstream from its confluence with Dominion Creek. Deposits present are 30 to 32 feet thick, and consist of 10 to 16 feet of frozen black muck with aburidant tree remains overlying 4 to 10 feet of sand and bouldery sand, 4 feet of brown gravel, and 8 feet of quartzrich gravel. The deposits lie along the margin of tailings from earlier dredging operations.

Mr. Kruger mined at this property in 1983 and 1984 using a Hough 120 loader equipped with a 6 cu. yd. bucket, a Cat D7E bulldozer, a Cat 955 Trancaveator, and a 605 dragline. He used the loader and the bulldozer to strip overburden. The 605 dragline was used to do ditching work, and to mine and stockpile pay gravel. Only the quartz-rich gravel was considered to be pay gravel. The Traxcavator was used to feed the sluicing plant, which consisted of a dump box and 3 run sluice box. The main sluice run was 36 inches wide and 36 feet long, and was lined with 3 inch riffles and coco matting. The side runs were 48 inches wide and 20 feet long, and were lined with expanded metal and coco matting. Material was processed at a rate of 30 to $50 \mathrm{cu} . \mathrm{yd}$. per hour. Tailings were stacked by the loader. Water used for sluicing in 1983 consisted only of seepage water pumped from the cut by a 6 inch pump powered by a Ford industrial gas engine. A shortage of water was reported to be common. In 1984, additional water for sluicing was pumped from Sulphur Creek by a 6 by 6 inch Monarch pump run by a 240 Ford engine. Sluice water was returned by a ditch upstream and by seepage to the pump for recirculation. A cut 50 feet wide and 140 feet long, and up to 32 feet deep was worked each year. The cuts were worked without a drain.,

Tack Corp.
Sulphur Creek
(64)

1983, 1984
115010
(Klondike)
$63^{\circ} 44^{\prime} \mathrm{N} 138^{\circ} 50^{\prime} \mathrm{W}$
This property is located immediately downstream from the mouth of Brimstone Gulch, along the middle portion of Sulphur Creek. Deposits present consist of up to 30 feet of frozen black muck overlying 6 feet of gravel and decomposed to blocky schist bedrock.


Figure 11: Stripping at the Tack Corp. property on Sulphur Creek. The bulldozer rips the muck, which is then washed away by water from the monitor. (J.H. '84)

Mining operations carried out in 1983 and 1984 were on a large scale. During 1984,21 people worked at the property on two shifts, using 3 Cat D8K bulldozers, 4 Cat 627B scraper-loaders with 21

this deposit is discontinuously frozen and is covered by black organic material 18 feet thick. Assays resulted in proven reserves of 1322000 cubic yards averaging 0.03 troy oz raw gold/cubic yard.

BLACK HILLS CREEK
Coleton Construction Ltd
11507 (43) $63^{\circ} 26^{\prime} \mathrm{N} 138^{\circ} 49^{\prime} \mathrm{W}$ 1988

Reference: Debicki and Gilbert (1986, p. 88-89)
Claims: P 30115-P 30119
Source: Summary by W.P. LeBarge of assessment report 120111 by Coleton Construction Lid.

Current Work and Results:
In 1987 a program of stripping, trenching and pan sampling was undertaken. Six feet of black organic muck was encountered followed by 14 to 16 feet of gravel overlying bedrock. Up to 4 colours of gold per pan were recovered near bedrock.


Clalms: CHILDS 1-21
Source: Summary by T. Bremner of assessment report 120049 (drill logs) by T. Donnelly.

Current Work and Results:
Twelve 6 inch diameter holes were drilled from south to north along the creek bed to an average depth of 21 feet, using a Becker hammer drill. Almost all the holes encountered a layer of black muck 3 to 16 feet thick overlying 4 to 14 feet of gravel. Weathered micaceous quartzite or schist bedrock was found in almost all the holes at an average depth of 16 feet. Gold, mostly fine to very fine, was recorded from a 1 to 6 foot interval spanning the top 12 to 24 inches of bedrock and the immediately overlying gravel. Gold values averaging $\$ 26.92$ /cubic yard were estimated.

AUSTRALIA CREEK
115010 (45) Hughes Lang Corporation

1988, 1989
Reference: No previous reference.
Claims: P 35230 - P 35328, PL 8045, PL 8048, PL 8051, PL 8053, PL 8054, PL 8198

Source: Summary by W.P. LeBarge of assessment reports 120103 and 120112 by S. Tomlinson (Mark Management Ltd).

History:


Australia Creek was briefly explored for gold during the Klondike Gold Rush of 1898, but only the nearby Sulphur, Gold Run, and Dominion Creaks were mined. No further evaluation was conducted until the 1960s when Yukon Consolidated Gold Corporation completed a limited churn drilling program at the mouth of Australia Creek. In the 1970s 13 rotary drill holes were drilled on nearby Wounded Moose Creek.

Description:
Australia Creek is a mature tributary to the Indian River, situated in a broad valley within the unglaciated Klondike Plateau. Recent stream action has resorted and redeposited Tertiary bench gravels which lie along both sides of the main valley. Bedrock consists of quartz-muscovite schist, minor graphitic schist, an orthogneiss unit and scattered mafic and felsic dykes.

Current Work and Results:
Exploration in the winter of 1988-1989 consisted of an extensive program of reverse circulation rotary drilling. A total of 4300 feet of rotary drilling was completed in 88 drill holes between November and January. Drill cuttings were logged and samples were taken in 2 foot intervals. A gravity concentrator was used to concentrate the heavy mineral fraction, and mercury amalgamation recovered any gold which was then weighed in Vancouver laboratories. Several holes returned values of gold greater than 0.01 oz/cubic yard over intervals of 2 to 6 feet. A bedrock high corresponding to a granite dyke is the possible cause of several shallow intercepts of extremely high gold values ranging up to 0.53 oz/cubic yard.

ENSLEY CREEK
115014 (47)
Tamarack Inc.

References: No previous reference
Claims: PL 6905, PL 6906
Source: Summary by R.L. Mcintyre from assessment report 120075 by Tamarack Inc.

History:
The Lower Discovery Claim was staked on November 29, 1897 by S. Ensley.

Current Work and Results:
Seven 6 inch diametre holes were drilled for a total footage of 189 feet. Depth to bedrock averaged 27 feet, and black muck overburden averaged 11 feet.

were sluiced. The upper gravels do not contain gold. On average two to three claims have been mined each season. In 1989 three cuts 300 feet wide by 500 feet long were mined. In 1990 a cut 200 feet wide by 350 feet long and a cut 200 feet wide by 400 feet long had been mined with two more similar cuts expected before the end of the season.

A crew of nine, including the site managers and cook, ran the mine on a double shift in 1989. One additional employee was hired for the 1990 season.

Two Cat D9H bulldozers were used for stripping the cuts and stockpiling pay for sluicing in 1989. In 1990 a third Cat D9H bulldozer was acquired for the same purpose. Two Cat Bulldozers, a D8H and D8K, were used as spare machinery or for any odd jobs. Tailings were hauled away and ramped with two Cat 966 loaders and a Cat 980C loader. A Cat 235 hoe fed the sluice plant.

A derocker feeding a single 42 inches wide by 30 foot long sluice run was used in 1989. In order to increase production in 1990 two derockers side by side were used each feeding a 42 inches wide by 70 foot long sluice run. The 235 hoe fed both derockers from the same location. Water was pumped to the two derockers by two 10 by 12 inch pumps powered by 3208 Cat engines. Production in 1989 was estimated at 80 cubic yards per hour. With two derockers working in 1990 production rose to 150 cubic yards per hour. Water was pumped from instream recirculation ponds constructed from previous cuts. Effluent outflow was usually by seepage from the first pond. Additional settling occurred in other downstream instream ponds.

Approximately $40 \%$ of the gold is +8 mesh with the remainder being fine grained and flat. Quartz is common on the nuggets. The fineness varies between 730 and 750.

## BLACKHILLS CREEK

11507
Queenstake Resources $\quad 63^{\circ} 27$ 'N $138^{\circ} 50^{\prime}$ W Water Licence: YPM87-030RL

Queenstake Resources had two operations on Blackhills in previous years but only the upper one ran in 1989. The camp was closed in the fall of 1989 and Queenstake did not return in 1990.

Two cuts on a left limit bench of Blackhills Creek were mined in 1989. Both cuts measured 400 feet long by 300 feet wide and averaged 30 feet of frozen material to bedrock. An average stratigraphic profile consisted of 12 feet of mud over 12 feet of coarse red gravel and

6 feet of white gravels. Up to 12 feet of the lower gravel and 1 foot of bedrock were sluiced.

A crew of three men and a cook ran the operation.
The wash plant consisted of a 4 by 30 foot trommel lined with $3 / 4$ inch punch plate. The classified pay was fed into three 32 inches by 18 foot sluice runs. The sluce runs were lined with coco matting and expanded metal. Using 1500 igpm of water approximately 85 cubic yards per hour could be sluiced. Water was delivered by a 10 by 12 inch Morris pump powered by a 3406 Cat engine to the sluice plant from an instream pump pond on Blackhills Creek. Effluent was settled in an instream pond in the main valley.


A 225 Cat hoe is feeding a hopper at the head of the trommel, at Queenstake's placer operation on Blackhills Creek.

A Cat D9H bulldozer stripped the cuts and stockpiled the pay next to the sluice plant. A Cat 225 hoe fed the hopper on the sluice plant. Either the D9H or a Cat 930 loader cleared tailings.

The gold is mainly fine grained ( $95 \%-12$ mesh) and flat. Fineness is 780.


1150 7i/115 0 10c $63^{\circ} 30^{\prime} \mathrm{N} 138^{\circ} 50^{\prime} \mathrm{W}$ 1989, 1990

This mine is located on Child Gulch, a left limit tributary of Blackhills Creek. Mining has progressed upstream from the confluence of Child Gulch and Blackhills since 1986.


The stratigraphic section was comprised of 1 foot of organics covering 12 feet of frozen black muck and 6 feet of frozen gravels. The bedrock varies from solid bedrock reefs to totally decomposed. All of the gravel strata was sluiced along with 2 to 3 feet of bedrock where possible.

Two full time miners ran a single shift in 1989 and 1990.

Three cuts were mined in 1989 with the largest being 400 by 300 feet. The cuts were stripped mechanically in 1989 but both hydraulic monitoring and mechanical stripping were done in 1990.

Two Cat D9 bulldozers were used for stripping, feeding the sluice plant and pushing tailings. A Cat D8 bulldozer was also available where needed.

A Ross Box model 500 sluice box continued to be used. The dump box measured 20 by 15 feet. The lower section was lined with monsanto matting, expanded metal and punch plate. The washed pay then passes into the main run and branches off to two side runs. Monsato matting and expanded metal lines the side runs while monsato matting and flat bar riffles are used in the main run. The sluice plant had an operating capacity of 100-150 cubic yards per hour.

A 12 by 14 inch pump powered by a Cat diesel engine (D8 size) supplies the 4000 igpm of water needed for sluicing and hydraulic monitoring. In 1989 a system where a primary settling pond, a second instream settling pond/recycle pond and a third large instream settling pond for final effluent treatment was used. Water was recycled in 1990 for the sluicing operation and was settled in several large instream settling ponds on the left fork.

The gold was reported to be fine grained and rounded with no quartz. The fineness was 690.

MONTANA CREEK
1150 10d Revest Bros. $63^{\circ} 38^{\prime} \mathrm{N} 138^{\circ} 59^{\prime} \mathrm{W}$ Water Licence: YPM88-073 1990

This operation is approximately 6 miles upstream from the mouth of Montana Creek which is a tributary of the Indian River.

Two miners worked a single ten hour shift to mine this property. A 825 Bobcat was used for all activities.

An average of seven feet of overburden was removed with the remaining three feet of gravels and one foot of

decomposed schist bedrock being sluiced at an approximate rate of twelve cubic yards an hour using 250 imperial galions per minute. Water was supplied from a recycling pond, by a Honda $8 \mathrm{HP}, 3 / 4$ inch pump.

Gold was reported to vary from fine grained to coarse. Fineness was 770.

## EUREKA CREEK Edgewater Exploration Water Licence: YPM87-110L

 1150100 $63^{\circ} 37^{\prime} \mathrm{N} 138^{\circ} 52^{\prime} \mathrm{W}$ 1989Edgewater Exploration mined on Eureka Creek approximately $11 / 2$ miles upstream from its confluence with the Indian River. The company mined on a large scale throughout 1989 but did not return in 1990.

Many different cuts were mined in several areas so it is difficult to give an average stratigraphic description. At the time of inspection a right limit cut opposite the main camp was being mined. The deposit averaged 16 feet deep and was frozen throughout. Eleven feet of black muck overlies 5 feet of gravel. Bedrock is highly fractured. The entire gravel strata and 6 inches of bedrock were sluiced. Three main cuts were sluiced in 1989. The first measured 1100 feet long by 300 feet wide by approximately 30 feet deep. The second cut measured 3000 feet long by 50 feet wide and the third cut measured 900 feet long by 100 feet wide.

This company ran one of the largest operations in the territory. Fourteen miners plus a welder, a mechanic and a cook ran a double shift.

Four Fiat Allis HD31 bulldozers were used for stripping. Three 637D scrapers also stripped and were used to carry pay to and tailings away from the sluice plant. A Cat D9H bulldozer was used for stripping and when needed as a push dozer for the scrapers. A 235 hoe fed the sluice plant and dug drains where needed. A Cat grader was also kept to maintain roads.

A Ross 500 sluice box was used. Close to 300 cubic yards per hour were sluiced with an estimated 7000 igpm of water. Water was pumped to the sluice plant by a 12 by 10 inch Morris pump powered by a 3406 Cat diesel engine. Water was pumped from an instream pumping/settling pond which captured total creek flow. A series of three settling ponds served as a recycle system with some outflow from the first settling pond.

The gold recovered was mainly fine grained. The fineness was 720.

INDIAN RIVER
1150 10e Caribou Mines $63^{\circ} 36^{\prime} \mathrm{N} 138^{\circ} 34^{\prime} \mathrm{W}$ Water Licence: YPM89-042 1990

This property is located on the Indian River at the mouth of Dominion Creek.

The deposit was 14 feet deep and frozen to bedrock and consisted of 5 feet of black muck on 9 feet of river gravels.

Heavy equipment included two Cat D9 bulldozers and one Cat D8 bulldozer which were used to strip the cut and stockpile pay. A Cat 225 hoe was used primarily for feeding the wash plant and putting in bedrock drains.

The wash plant consisted of a triple run sluice box. Material was screened to minus $1 / 2$ inch by punch plate over riffles.

Sixteen persons worked on a double shift basis in 1990.

The plant was fed at a rate of 150 cubic yards per hour. Sluice water was delivered by a 10 by 12 inch Morris pump, powered by a Cat 3406 diesel.

Gold was described as being flakey. Size ranged from fine grained to small nuggets. Fineness was reported to be 830 .

## DOMINION CREEK <br> Airgold <br> Water Licence: YPM87-173

 $63^{\circ} 37^{\prime} \mathrm{N} 138^{\circ} 43^{\prime} \mathrm{W}$ 1990Twenty two miners working two ten and a half hour shifts mined this property.

A Cat D9L bulldozer, a Komatsu 445A bulldozer and a Cat 631E scraper were used for stripping. To feed the sluice box a Komatsu WA600 loader and a Cat 966 loader were used. A Cat 235 excavator was used for drain work with another Cat 966 loader as a back-up machine.

The deposit consisted of 35 feet of frozen black muck over six feet of pay gravels. All 6 feet of pay gravel plus two feet of bedrock were sluiced.

This operation used two sluice plants to process gravel at a combined rate of 244 cubic yards per hour. Each sluice plant consisted of a triple run Ross box equipped with punch plate in the mouth and centre runs and expanded metal over nomad matting in the side runs.


Equipment/Function: A D9L Cat bulldozer and a 355 Komatsu bulldozer were used to strip the cuts and stockpile the pay gravels. An El300 Cat backhoe with a $21 / 2$ yard bucket fed the sluice plant, and a Hough 100C loader carried tailings off to build settling facilities and the diversion channel.


A large Cat hoe feeding Jasper Equipment's wash plant on Maisy May Creek.

Wash Plant: A 5 foot diameter by 40 foot long trommel was used to classify the pay to $3 / 4$ inch minus. The material was then sluiced in a run 9 feet wide by 16 feet long lined with Nomad matting and 1 inch angle iron riffles. A second box 12 feet wide by 16 feet long lined with Nomad matting and expanded metal was attached to the end of the first run. A 10 inch by 12 inch Paco pump powered by a 671 Detroit engine supplied the 2000 igpm needed to process 80 to 90 cubic yards per hour.

Ground Description: The average depth to bedrock was 10 feet, half being frozen muck and the remainder frozen gravels. The bedrock was flat and blocky. The lower 4 feet of gravel and 1 foot of bedrock was sluiced, and overburden was stockpiled along the left limit. The tailings will be used to construct settling facilities and the final diversion channel for Maisy May, along the right limit.

Mining Cuts: Four cuts averaging 300 feet long by 400 feet wide were sluiced in 1992.

Water Supply and Treatment: Maisy May Creek was diverted into a reservoir/recycle pond on the left limit near the sluice plant. The water was pumped through the plant and back to the recycle
pond, re-using up to $50 \%$ due to low flows in Maisy May Creek. The settling facilities were constructed from tailings, making the walls porous and allowing seepage outflow back to Maisy May Creek.

Gold: The gold was flat and usually had a dull red stain. The fineness was 782.

## BLACK HILLS CREEK 11507 Paydirt Holdings Ltd. $63^{\circ} 29^{\prime} \mathrm{N} 138^{\circ} 52^{\prime} \mathrm{W}$ Water Licence: PM87-079 1991, 1992

Operation/Location: In 1991 Paydirt Holdings mined upstream on Black Hills Creek from where they left off in 1990. The mouth of Childs Gülch was mined in 1992. The operation was scaled down from éiğtt employees in 1991 (including mine manager Tim Nixdorf and camp staff) to four in 1992.

Equipment/Function: Three D9H Cat bulldozers were used to strip the cuts and stockpile pay. A 235 Cat hoe fed the sluice plant and a 980C Cat loader hauled the tailings away. A D8H Cat dozer, a D8K Cat dozer, and two 966 Cat loaders were also available.

Wash Plant: Two 10 foot derockers set side by side were used to classify the pay. The pay was washed in two 42 inch wide by 40 foot long sluice runs lined with Nomad matting and $11 / 2$ inch angle iron riffles. A 10 inch pump powered by a 3208 Cat engine supplied the 3000 igpm needed to sluice 140 cubic yards per hour in 1991. A 10 inch Cornell pump was used in 1992, increasing the water supply to 3500 igpm and boosting production to 180 cubic yards per hour.

Ground Description: The average depth to bedrock on Black Hills Creek was 15 feet. Frozen black muck and mud usually extended from the surface to bedrock, with no gravels. The bedrock was highly fractured but very solid. Occasionally decomposed bedrock was encountered. All gravel found and 4 to 5 feet of bedrock was sluiced. The depth to bedrock on Childs Gulch was up to 25 feet. Fifteen feet of frozen black muck overlay 6 to 10 feet of frozen gravel. The bedrock was solid and wavy. The lower 4 feet of gravel and 2 to 3 feet of bedrock was sluiced. Numerous shafts and drifts were found immediately above bedrock.

Mining Cuts: Three claims were mined in 1991, in four cuts with average dimensions of 200 feet by approximately 150 feet by 200 feet were sluiced.

Water Supply and Treatment: Water was pumped from instream ponds on Black Hills Creek to the wash plants. The effluent was treated in a series of large instream settling ponds built from mined out cuts downstream of the sluicing operation.

Gold: Most of the gold from Black Hills Creek was fine and jagged. Flat and chunky gold and some wire gold was recovered at the mouth of Child Gulch. The fineness was 700 on Black Hills Creek and 750 on Childs Gulch.


Water Licence: PM91-053
Operation/Location: Childs Gulch is a left limit tributary of Black Hills Creek. Mining continued upstream from where it ended in 1990. Nine people ran the operation in 1991, and Roy Wallin and family operated the mine with a crew of eight in 1992.

Equipment/Function: In 1991 two D355A Komatsu bulldozers were used to strip the cuts and handle tailings. A PC300 hoe fed the sluice plant. In 1992 an 8L Cat bulldozer was used to strip the cuts and remove tailings. The sluice plant was fed with a 966C Cat loader.


A Cat 966C loader feeds the wash plant at Dorados Developments' mine on Childs Gulch.

Wash Plant: A derocker fed into a model 300 Ross Box. A rubber mat in the dump box and

another mat at the beginning of the main run spread the water flow across the run and helped wash the pay. A 12 inch by 10 inch Morris pump powered by a 3406 Cat engine supplied the 3500 igpm needed to sluice between 150 and 180 cubic yards per hour.

Ground Description: An average cut had 6 feet of overburden in the centre of valley, and 10 to 12 feet of overburden on each limit. The underlying gravels varied from 6 to 8 feet thick. Both decomposed (clay) and solid consolidated bedrock was found. The lower 4 feet of gravel and up to 1 foot of bedrock was sluiced.

Water Supply and Treatment: Water was pumped from an instream settling/recycle pond to the sluice plant. The mined out downstream cuts were used as additional settling ponds.

Gold: The gold size decreased from the mouth of Child Gulch, but has remained constant for the last couple of years. Most of the gold was close to 20 mesh. Some very jagged nuggets have been recovered. The fineness averaged 734 .


Operation/Location: Richard Allen mined near the confluence of the left and right fork of Eureka Creek in 1991, and on the right fork in 1992. In 1992 Mr . Allen worked largely by himself.

Equipment/Function: Two D9 Cat bulldozers were used for stripping, feeding the sluice plant, and pushing tailings. A D8 Cat bulldozer was available if required.

Wash Plant: A model 500 Ross Box was used in 1991, and a new trommel wash plant was built for the 1992 season.

Mining Cuts: No production figures were obtained for 1991 and 1992. The first part of 1992 was spent building settling facilities and opening up new ground on the right fork of Eureka Creek.

Water Supply and Treatment: Water was pumped from instream reservoirs to the sluice plant. The effluent was treated in instream settling ponds built in downstream mined out cuts.

Gold: Most of the gold recovered in past years was fine grained and rounded. The fineness has averaged 690.

DOMINION CREEK (UNNAMED TRIB.) 115010 Gyppo Mining Ltd. $63^{\circ} 41^{\prime}$ N $138^{\circ} 35^{\prime} W$ Water Licence: PM91-128 1992

Operation/Location: Four miners worked 10 hours per day at this operation. The unnamed left limit tributary of Dominion Creek downstream from Rob Roy Creek is also called "Lee Pup".

Equipment/Function: A D8 Cat dozer, an excavator and a 966 Cat loader were used to mine this site.

Wash Plant: One hundred loose yards per hour were processed using 1750 igpm of water. The wash plant was a vibratory shaker screen deck feeding a riffle run with expanded metal and Nomad carpet.

Ground Description: The stratigraphic section of this property consisted of 10 to 15 feet of frozen black muck. Five to six feet of material were sluiced.

Mining Cuts: An area 100 yards by 80 yards was mined in 1992.

Water Supply and Treatment: Water was pumped from Dominion Creek. No recycling was used at this site. Settling was accomplished in out of stream ponds on the right limit of the valley.

Gold: Information was not available.

DOMINION CREEK
115010
L.W. and G.A. Gatenby $63^{\circ} 39^{\prime} \mathrm{N} 138^{\circ} 40^{\prime}$ W Queenstake Resources
Water Licence: PM89-175

Operation/Location: Queenstake Resources operated on Dominion Creek upstream of its confluence with Sulphur Creek, under the Gatenby's water use licence and a lease agreement. In 1991 two people worked one shift per day until operations ceased on July 1.

Equipment/Function: A Cat D9H bulldozer was used to push up pay and clear away tailings. An EL300 backhoe fed the trommel.

Wash Plant: Pay was processed at 120 loose yards per hour using a 60 inch trommel with four 30 inch sluice runs, and one sluice run 7 feet wide by 20 feet in length under the trommel. The trommel was powered by a Cat 3306. Water consumption was 2500 igpm, pumped by a 10 by 12 inch Morris pump powered by a Cat 3406.

Ground Description: The ground had a total depth of 32 feet, comprised of 8 feet of black muck over 12 feet of creek gravel, over 12 feet of white channel gravel on top of decomposed Klondike schist. Four feet of white channel gravel and 2 feet of bedrock was sluiced.

Mining Cuts: In 1991 20,000 cubic yards were mined in one cut.

Water Supply and Treatment: The operation utilized $100 \%$ recirculation of water. This was accomplished using two ponds for waste water treatment. One was 300 feet by 200 feet, and the other was 200 feet by 200 feet.

Gold: Gold was 98\%-12 mesh, with a fineness of 860.

## DOMINION CREEK

115010
J. P. Taylor $\quad 63^{\circ} 49$ N $138^{\circ} 39^{\prime} \mathrm{W}$

Water Licence: PM89-184
1991. 1992

Operation/Location: This operation was located in the Dominion Creek Valley downstream from its confluence with Portland Creek. In 1991 work was carried out on the left limit by one person. Work continued here in 1992, and tailings in the centre of the valley were also worked, using three people.

Equipment/Function: A Cat D8 bulldozer was used to strip, push up pay, and remove tailings. A John Deere 450 loader with backhoe fed the plant, and a 720 Bobcat cleared tailings. In 1992 a Cat D7E dozer was added to strip, prepare the site, and push tailings. A John Deere 790D backhoe fed pay to the plant.

Wash Plant: Material from the left limit was processed using a 4 foot by 14 foot derocker with two 12 foot by 2 foot runs. Material from the centre of the valley was processed using a 6 foot trommel which screened to $6 / 8$ inch. It had 18 feet total width of runs, 9 feet on each side of the trommel, each run 5 feet long. Three 3 inch Honda pumps were used to pump 750 igpm of
$90 \%-10$ to +60 , and $5 \%-60$. The gold was bright with some quartz present. In both years the purity was 850 fine.

Comments:In 1993 restoration was completed on the upper claims of Teck's property.

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Operation/Location: Daniel and Peggy Cuevas mined an area of Gold Run Creek approximately five miles upstream from its confluence with Dominion Creek. Mining took place in the valley bottom. In 1993 a four person crew worked 10 hours per day, and in 1994 the crew was reduced to two miners.

Equipment/Function: In 1993 a D9G Caterpillar bulldozer and two D8H bulldozers with U-blades and rippers were used to rip and push frozen muck overburden and dig and stockpile pay gravel. A Caterpillar 966C loader with a four cubic yard bucket fed the sluice box and removed tailings. A mobile B-31 six inch auger drill was used for testing. In 1994 one less D8H bulldozer was used.


Dan and Peggy Cuevas of D\&P Mining Exploration Ltd. on Gold Run Creek.

Wash Plant: Fifty-five yards per hour were processed using a sluice box with a 10 foot by 12 foot dump box and sluice runs consisting of four sections of 4 foot by 8 foot punch plate over expanded metal and Nomad matting. The punch
plate had $3 / 4$ and $1 / 2$ inch holes. The slope used on the sluice was $21 / 2$ inches per foot.

Ground Description: Thirty to 40 feet of muck covered 2 to 5 feet of gravel. The gravel was a frozen, uniform mix of sand, gravel, and rocks 1 to 2 feet in diameter (mostly quartz). Bedrock was wavy, fractured, and decomposed; with blue and green colouring. The sluice section averaged three feet of gravel and three feet of the decomposed bedrock.

Mining Cuts: In 1993 one cut 200 feet by 400 feet was excavated with 26,000 cubic yards sluiced. In 1994 a cut 200 feet by 200 feet was excavated with 13,500 cubic yards sluiced.

Water Supply and Treatment: A 10 by 12 inch Pump Master pump powered by a 6-cylinder Deutz engine provided water at a rate of 1000 igpm from an instream recirculation pond. Waste water was settled in old mining cuts prior to return to Gold Run Creek.

Gold: The gold had a variety of shapes. Mesh sizes were $45 \%+10,50 \%-10$ to +60 , and $5 \%-60$. Nuggets were mostly rounded and flat with some quartz inclusions. Fineness was 840.

Comments: These operators moved to this site from Glacier Creek in 1992. They have encountered old shafts with ladders in place and an occasional old bone.

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Operation/location: Richard Allen and two other miners worked on the left fork of Eureka Creek in 1993 and the right fork of Eureka Creek in 1994. The mine cuts were located near the top of the left fork and near the bottom of the right fork.

Equipment/function: Two D8H Caterpillar bulldozers with rippers and a D9G bulldozer with ripper were used to strip the cuts. A Warner Swayse 900A hoe fed the sluice plant and the D9G bulldozer removed the tailings.

Wash Plant: A small hopper fed into a scrubber four feet in diameter. The gravel was classified to $3 / 4$ inches minus before being channelled through
a single sluice run 6 feet wide by 18 feet long. The first six feet of the sluice run was lined with one inch angle iron riffles. Nomad matting and expanded metal lined the lower 12 feet of the run. Approximately 75 cubic yards per hour was sluiced. A six inch by 8 inch Paco pump powered by a Cummins motor supplied the 2000 igpm needed for sluicing.

Ground Description: The cuts mined in 1993 averaged 30 feet to bedrock. Open cuts left by earlier miners showed a profile of mixed frozen black muck, gravel, and slide rock. The lower four feet of gravel and up to four feet of bedrock were sluiced. The depth of the ground mined on the right fork in 1994 was approximately 35 feet. An average of 25 feet of frozen black muck covered 10 feet of gravel. The lower four feet of gravel and up to six feet of bedrock were sluiced.

Mining Cuts: An area 120 feet wide by 800 feet long was mined in four separate cuts on the left fork in 1993. Five cuts were sluiced in 1994 on the right fork for a total area of 150 feet wide by 1000 feet long.


Discovery Creek Gold Placers' set-up on the Right Fork of Eureka Creek in 1994.

Water Supply and Ireatment:An instream recycle system was used on the left fork. An instream water control box stored water on the right fork. The effluent was treated in a large instream settling pond located downstream at the main forks.

Gold: The gold recovered in 1993 was fine and spongy with a purity of 710 fine. The gold was
fine on the right fork, but the purity dropped to 690 fine.

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Operation/location: Murray Conners ran this operation for one year near the top of Goring Creek on a left limit bench. A crew of two ran the mine in 1994.

Equipment/Function: A D9N Caterpillar bulldozer with U-blade and ripper stripped the cuts and stockpiled the pay gravels. A 966D Caterpillar bulldozer fed the sluice plant.

Wash Plant:A 200 Ross Box with 3 foot wide by 20 foot long sluice runs was used. Expanded metal, $2 \frac{1}{2}$ inch angle iron riffles, and $5 / 8$ inch punch plate was used. The wash plant was capable of handling up to 250 cubic yards per hour. Water for sluicing was delivered to the bench by a 6 by 8 inch Cornell pump and a 5 by 6 inch Mission pump. Approximately 3000 igpm was needed for sluicing.

Ground Description: The oldtimers had previously mined the rim of this left limit bench deposit approximately 200 feet above Goring Creek. The intention was to continue back into the face along the rim. The total depth varied from 15 to 65 feet (at the back of the last cut). The stratigraphic section was made up of several thawed layers of coarse and fine gravels along with seams of clay. Bedrock was decomposed and wavy. The lower six feet of gravel was sluiced with four feet of bedrock.

Mining Cuts: Two cuts (100 feet by 150 feet and 150 feet by 240 feet) were mined in 1994.

Water Supply and Treatment: Water was pumped from an instream reservoir on Goring Creek to the sluice plant. The effluent was treated in out-ofstream settling ponds located on the bench and next to Goring Creek. Discharge occurred back to Goring Creek upstream of the reservoir. Total recirculation was necessary.

Gold: The gold was extremely fine. Fineness was 730.
 confluence with the Quartz Creek valley.

Equipment/Function: Two D9 Caterpillar bulldozers were used to strip overburden and dig and stockpile pay gravels. One Caterpillar 980C loader fed the wash plant and a 966 F loader removed tailings.

Wash plant: A 20 foot long dump box with $\%$ inch punch plate in the main throat area fed three sluice runs. The middle run was 4 feet wide by 20 feet long with punch plate over expanded metal riffles on Nomad carpet. The side runs were 4 feet wide by 20 feet long with expanded metal riffles over Nomad carpet. About 180 cubic yards per hour were sluiced using 5000 igpm of water supplied by a 10 by 12 inch Morris pump.

Ground Description: Overburden in the Indian River valley was 5 to 8 feet deep, on top of 3 to 4 feet of red gravel mixed with mud. Below this was a darker layer of coarse gravel 2 to 3 feet deep, on top of bedrock. The bottom three feet of gravel plus about two feet of bedrock were processed. Overburden near the mouth of Quartz Creek was from 15 to 20 feet deep. Several mammoth tusks were found. Overburden near the right side of the Indian River valley, upstream of Quartz Creek, was about six feet deep. Gravel sections were similar at all locations.

Mining cuts: Approximately 330,000 cubic yards were mined from 10 cuts in 1993, and approximately 400,000 cubic yards were mined from 10 cuts in 1994. The cuts averaged about 400 feet by 400 feet.

Water Supply and Treatment:Water was recycled in out-of-stream ponds in worked out mining cuts. Make up water was pumped from the Indian River and discharge was by seepage only.

Gold: Fine gold was flat and smooth. Some small, round, angular nuggets had quartz attached. Fineness was around 820.


Operationllocation:Aurion Placers mined this site on the Indian River one mile upstream from the confluence with Eureka Creek. The valley is wide and flat and the river channel meanders along the right limit. A crew of three miners worked 12 hours each day.

Equipment/function: A D10 Caterpillar bulldozer and a D9L bulldozer were used for stripping, pushing up pay, and stacking tailings. Both were equipped with $U$-blades and rippers. An EL300 Caterpillar excavator equipped with either a one cubic yard frost bucket or a $1 \% /$ yard clean up bucket was used to feed the wash plant and to dig ditches and drains.


Aurion Placers' wash plant on the Indian River near Eureka Creek.

Wash Plant: The plant, which processed 175 yards per hour, consisted of a 4 foot by 16 foot El-Rus incline shaker screen deck with four sluice runs 4 feet by 16 feet sloped at $1 \frac{1}{2}$ inches per foot. Recovery was by expanded metal on unbacked Nomad matting and one 3 foot section of one inch Hungarian riffles midway down each sluice run. A combination of a two hutch jig leading into a long tom was used for clean ups.

Ground Description: About six feet of black muck covered a layer of silt and waste gravel averaging four feet in depth, over a pay layer with an average depth of five feet. The black muck was frozen for approximately $2 / 3$ of its depth and varied
from 2 to 10 feet. The silt and waste gravel layer varied from 2 to 6 feet. The pay layer varied from 3 to 8 feet and was mostly small uniform rock with very few large boulders.

Mining Cuts: Five pits were mined in 1994. The surface dimensions of the pits in order of completion were 394 by 300 feet, 525 by 388 feet, 500 by 394 feet, 485 by 435 feet, and 267 by 475 feet. A total of 240,000 cubic yards were stripped and 135,000 cubic yards were sluiced.

Water Supply and Treatment: A 10 by 8 inch Morris pump powered by a 3306 Caterpillar engine provided 2000 igpm of water from an out-ofstream recycle pond on the left limit of the Indian River. This operation recycled all of its water. A berm at the downstream end of the operation was opened at the end of the season to release impounded water.

Gold: The shape of the gold varied with $70 \%$ flat, $20 \%$ angular, and $10 \%$ round. The size of the gold was $5 \%+10,85 \%-10$ to +60 , and $10 \%-60$. The gold was bright with no stain, and the fineness was 820.

Comments: Reclamation has been performed on an ongoing basis as each pit is stripped and sluiced.


Operation/Location: Phil Cash ran this operation on the left limit of the Indian River upstream of Eureka Creek. A cut near the mouth of Eureka Creek was partially stripped late in the fall. Seven miners and one camp person were employed.

Equipment/function: Two D10N Caterpillar bulldozers stripped the mine cuts and stockpiled the pay gravel. Two 966E Caterpillar loaders were used for sluicing, one feeding the sluice plant and one handling the tailings. A 235C Caterpillar excavator was available where needed. Roads were maintained with a 740A grader.

Wash Plant: A conveyor 36 inches wide by 100 feet long fed the hopper, which lead onto a 5 foot by 16 foot wet screen deck. The classified pay was sluiced through four 4 foot wide by 16 foot long oscillating runs. The processing rate varied
from 100 to as much as 275 cubic yards per hour. A 6 by 4 inch John Deere pump supplied the 1500 igpm needed for sluicing.

Ground Description: The depth of overburden varied from location to location. Each cut had a frozen black muck layer with 4 to 9 feet of gravel. Bedrock tended to be solid and wavy.

Mining Cuts: Three cuts ( 800 feet by 300 feet, 800 feet by 250 feet, 280 feet by 665 feet) were mined during the 1994 season. A single large cut was partially stripped on Eureka Creek.

Water Supply and Treatment: Water for sluicing was recirculated from mine pits after the pay was removed. Make-up water came from an abandoned meander of the Indian River and from unnamed left limit tributaries. No effluent discharge occurred.

Gold: A wide range of size was reported, from 400 mesh to small nuggets. The purity was 850 fine.


Operation/location: This operation was located on the Indian River between the confluence of Dominion and Sulphur Creeks and Scribner Gulch. In 199312 miners worked two shifts totalling 20 hours per day. In 199412 miners worked two shifts totalling 22 hours per day. The camp was located near the old dredge number 6.

Equipment/runction: Two 455 Komatsu bulldozers with rippers, one D9L Caterpillar bulldozer with ripper, one 631 Caterpillar scraper, two 966 Caterpillar loaders with four yard buckets, and one 235 Caterpillar excavator were used to mine the site.

Wash Plant: Two triple run Pearson sluice boxes were used. One was fed by bulldozer and the other was fed by loader. Two Cornel 10 by 10 inch pumps powered by 3306 Caterpillar engines provided 4000 igpm to the boxes. The processing rate of each plant was 120 yards per hour.

Ground Description: The stratigraphic section consisted of 6 to 8 feet of frozen organic muck over 6 to 8 feet of waste river gravel and 6 to 8


#### Abstract

Wash Plants: The conventional sluice at Ruby Creek had a 14 foot by 20 foot dump box with 5 parallel sluice runs. Approximately 200 cubic yards per hour were processed using about 3000 igpm of water, supplied by a 10 inch by 12 inch Morris pump powered by a Caterpillar 3408 diesel engine. The floating trommel was 8 feet in diameter with 6 sluice runs, each 4 feet wide. Tailings were removed and stacked by a 40 foot long conveyor. About 300 cubic yards per hour were processed using approximately 3000 igpm of water supplied by a 10 inch by 12 inch Morris pump powered by a Caterpillar 3306 diesel engine.


Ground Description: The left limit of the Indian River valley, near the mouth of Ruby Creek, had 10 to 14 feet of frozen black muck on top of gravel layers 8 to 12 feet deep. The bottom 4 to 6 feet of gravel plus up to 3 feet of decomposed bedrock were sluiced. The Indian River valley, upstream from Quartz Creek, had 4 to 8 feet of frozen muck and clay on top of gravel layers averaging 12 feet deep.

Mining Cuts: About 40,000 square feet per year were mined by the operation at the mouth of Ruby Creek; about 2 million square feet per year were mined with the floating trommel in the Indian River valley.

Water Supply and Treatment: Water was ditched from Ruby Creek by gravity feed and seepage water was recycled from the dredged pond for the trommel.

Gold: Gold recovered at the Ruby Creek location was mostly fines, under 12 mesh, with fineness around 800 . The gold recovered from the rest of the Indian River valley was $80 \%$ under 20 mesh with fineness of 790.


Operation/Location: AMT ${ }^{-}$Rēsources Ltd $\operatorname{ran}^{-1}$ large operation near the mouth of Eureka Creek during 1995. The mine was shut down and all the restoration was completed in the fall of 1995.

Equipmentifunction: Two Caterpillar D10N bulldozers were used for stripping the cuts, stockpiling pay gravels and sluicing. Two Caterpillar 966E loaders and a Caterpillar 235 excavator were used for sluicing and loading the three 27 ton haul trucks which were also used for handling the overburden. Roads into and on the property were maintained with a 740A grader. An 8 inch drill was used to define the pay channels.

Wash Plant: AMT. Resources continued to use a conveyor, 3 feet wide by 100 feet long, feeding into a hopper that fed onto a 5 foot wide by 16 foot long wet screen deck. The classified pay was sluiced through four oscillating runs 4 feet wide by 16 feet long. A 4 inch by 6 inch John Deere pump supplied the 1250 igpm needed to process between 200 and 300 cubic yards per hour.

Ground Description: The large area mined near the mouth of Eureka Creek varied considerably in depth and makeup. Between 6 and 20 feet of frozen black muck overlies 1 to 6 feet of gravels. Much of the bedrock was decomposed and wavy. Large areas of clay were encountered. The lower 1 to 3 feet of gravels and between 2 and 3 feet of the bedrock was sluiced. Old workings were found in several places.

Mining Cuts: Although a large pit measuring 850 feet wide by 2800 feet long was stripped in 1995 not all of the cut was sluiced. Sky Dawn Mining finished the sluicing during the 1996 season. AMT Resources Ltd. sluiced approximately 565,000 cubic yards during 1995.

Water Supply and Treatment: Water for sluicing came from Eureka Creek and then was recirculated from the mine pits after the pay gravels were removed. The cuts tended to be 3 to 4 feet below the water line and were submerged unless pumps were used to keep the cuts dry. No discharge occurred

Gold: The gold was reported as primarily flat, round and chunky with almost all of it falling between the -10 to +60 mesh size. Some of the larger pieces contained quartz and mercury contamination was not uncommon. The purity varied from 680 to 710 fine.

EUREKA CREEKINDIAN RIVER S Y 1150110 Sky Dawn Mining w 63 . 37 Ni 13849 w Water Licence: PM96.011 Dominion-Sulphur Placer Aread Si Site No. 58

Operation/Location: Wayne Tatlow and Pamela Nowlin mined along the left limit of the Indian River upstream of Eureka Creek in 1996 and on Eureka Creek near the mouth in 1996 and 1997. A crew of two miners and one camp person ran a 12 hour shift each day in 1996. The crew was increased to four in 1997 so that two 12 hour shifts could be run. Sky Dawn Mining purchased this property from AMT Resources Ltd. in the spring of 1997.

Equipment/Function: A Caterpillar D9H bulldozer equipped with a U-blade and ripper was used for stripping, stockpiling pay gravels, feeding the sluice plant and ramping tailings. A mobile B50 8 inch drill mounted on a nodwell was used to test the ground.


Sky Dawn Mining sluicing a contained cut along the left limit of the Indian River.

Wash Plant: A 20 foot long end dump box lined with $1 / 2$ inch punch plate fed into three runs. The centre run is 3 feet wide by 16 feet long and is lined with 1 inch punch plate and Nomad matting. The two side runs are 4 feet wide by 16 feet long and are lined with expanded metal and Nomad matting. A 10 inch by 12 inch pump powered by a Caterpillar 3406 engine supplied approximately 4000 igpm needed to sluice between 70 and 125 cubic yards per hour.

Ground Description: All the waste overburden for the Indian River and Eureka Creek cuts that were mined in 1996 was stripped by AMT Resources Ltd. in 1995 prior to shutting down. The remaining gravels varied in depth from 4 to 8 feet deep. The ground mined in 1997 varied in depth with between 23 feet and 50 feet of muck overlying 3 feet of gravel. The bedrock on the Indian River tended to be flat and chunky while the bedrock on Eureka Creek was fully decomposed with mud seams that ran through both the bedrock and gravel. Generally all the gravel and 2 to 3 feet of bedrock was sluiced.

Mining Cuts: During 1996, 150,000 cubic yards of gravel were sluiced from five cuts on the Indian River as well as 71,000 cubic yards from two cuts on Eureka Creek that averaged 400 feet by 300 feet. Four cuts ( 1200 feet by 50 feet/ 125 feet by 500 feet/ 125 feet by 250 feet/ 1000 feet by 200 feet) were mined on Eureka Creek during 1997.

Water Supply and Treatment: The water for sluicing came from either the Indian River or Eureka Creek and from seepage inflow to the mine pit. The water was then recycled $100 \%$ in the out of stream cuts after the pay gravels were removed. No discharge except by seepage occurred.

Gold: The gold recovered from the Indian River tended to be coarse, flat, brightly coloured and with a purity of approximately 850 fine. The gold from Eureka Creek was fine, stained and had an average purity of 750 fine. Up to $1 / 2$ ounce nuggets were recovered from Eureka Creek. Mercury contamination from old workings was common on Eureka Creek.


Operationllocation: Rich ard Allen continued mining on the right fork of Eureka Creek approximately half a mile upstream from the main forks. Two miners were employed.

[^2]equipped with rippers were used to strip the cuts and maintain settling facilities. A Warner Sways 900A excavator was used to feed the sluice plant. Tailings were ramped with the bulldozers.


Wash Plant: The pay gravels were fed into a hopper before being classified to $3 / 4$ inch minus in a 6 foot diameter trommel. The classified pay was then put through two sluice runs 8 feet wide. The sluice runs are lined with matting, expanded metal and 1 inch angle iron riffles. A Morris pump powered by a Caterpillar 3406 engine supplied approximately 2000 igpm for sluicing between 100 and 150 cubic yards per hour.

Ground Description: The cuts varied in depth but an average of 25 feet of frozen black muck overlies 10 feet of gravel. The lower gravels and up to 5 feet of bedrock was sluiced.

Mining Cuts: All mining during 1995, 1996 and 1997 occurred on the right fork of Eureka Creek. Mining progressed in an upstream direction. No data was provided for actual production.

Water Supply and Treatment: Water from Eureka Creek was contained in an instream pump pond and was managed with a water control box. The water was then pumped to the wash plant with the effluent flowing downstream to the main forks where it was treated in a large instream settling pond. Smaller instream settling ponds were constructed closer to the sluicing operation in 1997 because the large pond at the forks became full and could no longer be used.

Gold: The gold is mostly fine with a purity of 690 fine.
 Aurion Placers: $63138 / \mathrm{N} 138: 51 \mathrm{~W}$ Water Licence: PM95-055 Dominion-Sulphur Placer Areal I Site No, 60 Operationhlocation: Aurion Placers continued to mine on the left limit side of the Indian River upstream of Eureka Creek. By 1997 the mining was being done immediately upstream from the mouth of Eureka Creek. Four miners and two camp staff kept two 12 hour shifts going in 1995. An additional miner was added in 1996. The operation grew to eight miners and two camp staff in 1997.

Equipment/Function: A Caterpillar D10 bulldozer and a Caterpillar D9L bulldozer were used for stripping and pushing 4 p pay gravels for sluicing. Both bulldozers were equipped with U-blades and single shank rippers. A Caterpillar EL300 excavator was used for feeding the sluice plant and any ditching that was required. A Caterpillar 980C loader was acquired in 1996 to stack tailings. Roads on the property were maintained with a Champion 720 grader.

Wash Plant: A hopper, a 5 foot by 16 foot El-Rus incline shaker screen deck and four 4 foot by 16 foot sluice runs were used to process the pay gravel. The runs were lined with unbacked Nomad matting and expanded metal. A short 4 foot section of 1 inch Hungarian riffles was built into each run halfway down its length. The wash plant could handle between 180 and 200 cubic yards per hour depending on the type of material being sluiced. A 2 hutch jig and Long Tom were used for clean-ups. The 2000 igpm needed to run the wash plant was supplied by an 8 inch by 10 inch Morris pump powered by a Caterpillar 3306 engine.

Ground Description: The cuts on the left limit of the Indian River had an average of 6 to 8 feet of frozen black muck overlying 4 to 8 feet of frozen silt and gravel. The frozen black muck overburden in the cut at the mouth of Eureka Creek varied in depth from 5 feet to 35 feet with an average of 10 feet. The gravels varied in depth from 2 feet to 20 feet. Bedrock generally was decomposed

Barramundi Gold continued to work on their Longline (Yukon Minfile, 1997, 115N 024) property, which is the most advanced property in the northern portion of the Dawson Range. The company carried out two phases of diamond drilling (Fig. 15), 53 kilometres of Gradient Induced Polarization, 25 kilometres of Real Section Induced Polarization surveys, geochemical surveys, prospecting and sampling. The property is underlain by granodiorite of the Klotassin Batholith, which is host to several high-grade quartz-sulphide vein occurrences. The first phase of drilling was directed at outlining a small reserve on the V 2 vein, which could then be bulk sampled. The vein was tested with 22 holes totalling 550 metres. Assays up to $386.6 \mathrm{~g} / \mathrm{t}$ Au over 0.66 metres were obtained from the drilling. The drilling was difficult with variable core recovery, and the results reflect the strong nugget effect that is evident from surface sampling. A second phase of drilling was conducted after a financing arrangement and joint venture agreement with Newmont Exploration. This phase of drilling targeted coincident gold-arsenic-geochemical and geophysical (gradient I.P.) anomalies, which had never been previously tested. Twelke holes totaling 2100 metres were drilled. High-grade quartz veining, similar to veining cutting the granodiorite on surface, was intersected at depth with values up to $45.7 \mathrm{~g} / \mathrm{t} \mathrm{Au}$ over 0.20 metres. Several drill holes intersected altered granodiorite, consisting of locally intense sericite and silica alteration with disseminated arsenopyrite and pyrite. The alteration zones assay as high as $3.19 \mathrm{~g} / \mathrm{t} \mathrm{Au}$ over 27 centimetres and $2.23 \mathrm{~g} / \mathrm{t}$ Au over 1.00 metre. These zones generally range between 0.10 and $0.30 \mathrm{~g} / \mathrm{t} \mathrm{Au}$ over widths of 10 to 20 centimetres; these zones average $1-2$ per metre over several metres cored width. An average of 20 alteration zones occur per hole, with 52 found in hole LL99-10.

Troymin Resources Ltd. conducted an exploration program consisting of stream sediment sampling, ridge-and-spur soil sampling, rock sampling and mapping on its newly staked Moosehorn Property adjacent to the Longline property. The property covers 294 LAD claims in the Moosehorn Range mountains, 80 kilometres north of Beaver Creek. The stream sediment sampling program identified three areas of anomalous metal zonation: 1) the northwest part of the property is Bi-rich; 2) the central part of the property is $\mathrm{Au}, \mathrm{Ag}$ and As rich; and 3) the south-central part of the property is Sb-rich. Anomalous $\mathrm{Zn}, \mathrm{W}$ and Hg values are irregularly distributed throughout the property. Gold values in stream sediments range from less than detection ( $<0.2 \mathrm{ppb}$ ) to 701.6 ppb , with 5 samples greater than 100 ppb . The ridge-and-spur soil sampling program returned values up to 364 ppb Au , with 4 samples > 100 ppb. Three areas of coincident, anomalous $\mathrm{Au}, \mathrm{Ag}, \mathrm{As}, \mathrm{Sb}, \mathrm{Bi}, \mathrm{Pb}$ and Zn were identified, two of which are greater than 400 metres long. Rock samples from the property returned values up to $432 \mathrm{ppb} \mathrm{Au}, 0.4 \% \mathrm{~Pb}, 1.2 \% \mathrm{Zn}, 10.2 \mathrm{~g} / \mathrm{t} \mathrm{Ag}$ and $0.45 \% \mathrm{As}$ (S. Casselman, pers. comm., 1999).

Kennecott Canada conducted geochemical surveys, geological mapping, prospecting, minor trenching and airborne geophysical surveys on the Sixty and Poker Creek properties in the Sixty Mile Creek, Glacier Creek and Miller Creek areas. No results from the program were released.
Nordac and Expatriate Resouces formed the Eureka Joint Venture to explore the EurekaArmenius, Forty and Track properties in west-central Yukon. The properties are all within historic placer gold mining areas. The properties were explored with geochemical sampling, mapping, prospecting and hand trenching. The Track (Yukon Minfile, 1997, 116C 137) property, about 50 kilometres northwest of Dawson City, hosts tungsten-bearing skarns developed in metasedimentary rocks along the north side of a Cretaceous intrusion. Prospecting in a heavily vegetated area near one of the skarn showings located float specimens that returned anomalous gold, bismuth and tungsten values. The best specimen yielded $3.59 \mathrm{~g} / \mathrm{t} \mathrm{Au}, 1655 \mathrm{ppb}$ bismuth and 810 ppm tungsten.
The Eureka/Armenius (Yukon Minfile, 1997, 115N 057) properties adjoin one another and collectively total 386 claims covering 8000 hectares. They are located in the southern part of the Klondike Goldfields and are easily accessible by an extensive network of roads serving

Figure 16. Jean Pautler of Teck Exploration examines quartz mineralization hosted in Cretaceous quartz monzonite on the Ten Mile Creek property.
local placer miners. Creeks draining the property have produced more than 140,000 ounces ( 4.3 million grams) of placer gold. The claims are underlain by metasedimentary and metavolcanic rocks of the Devonian to Mississippian Nasina Assemblage of the YukonTanana Terrane. The best bedrock exposures are in a few bulldozer trenches excavated by a previous owner. Sampling on the floor of one of these trenches returned a weighted average of $0.33 \mathrm{~g} / \mathrm{t}$ Au across a 6.5 -metre-wide limonitic fracture zone. Prospecting along access roads and in soil profiles on the banks of trenches discovered abundant previously unbroken and unreported boulders offimonite breccia. Samples of the breccia assayed in the range of 0.85 to $15.00 \mathrm{~g} / \mathrm{t}$ Aus. A regional-scale thrust was mapped and sampled in a placer miner's cut and one of seven samples taken assayed $75.38 \mathrm{~g} / \mathrm{t}$ A . Before the crew could return to the area, placer mining had progressed upstream and the sampled area had been reburied. Subsequent sampling of another bedrock exposure adjacent to an area that was being actively placer mined and was producing gold, returned low values. Results from this target suggest the ggld is erratically distributed wifhin strongly fractưred rocks developed along the fthrust fault $S$
Teck Exploration performed a program of geological mapping, prospecting, and'soiland stream sediment sampling on the Ten Mile (Yukon Minfile, 1997, 115N 110) Creek property. The claims are underlain by a quartz monzonite intrusive of probable Cretaceous age (Fig. 16) intruding Yukon-Tanana Terrane metamorphic rocks. Phelps Dodge has a large block of FLUME claims that adjoin the Teck property and cover similar geology. Phelps Dodge performed a small program of mapping, geochemical sampling and prospecting on the FLUME claims. No results have been released from either program.

Prospector International optioned six properties staked by Prime Properties Syndicate on targets modelled after the POGO deposit in Alaska. The properties include the HIHO, YOGO, OHGO, PREMO, TKO and LADUE claims. Prospector International performed stream-sediment geochemistry, reconnaissance soil geochemistry and prospecting on the various targets. The properties produced several areas with anomalous gold, arsenic, antimony and mercury, which warrant follow-up programs.
Other major claim holders in the Dawson Range who have also performed small programs of geochemical sampling and prospecting include Canandian United Minerals Incorporated and Deltango, both private Yukonbased exploration companies.

Pacific Ridge Exploration conducted a 9 -hole, 995 -metre diamond drilling program on the JRV (Yukon Minfile, 1997, 105K $051,052,053$ ) property near Faro in central Yukon (Fig. 17). The property hosts silver-gold mineralization within the midCretaceous Anvil Range plutonic suite. Mineralization, discovered as float in High Ace Creek, consists of quartz-sulphide breccia, quartz stockwork and sheeted veins. Grab sampling of this material within the Kulan zone averaged $138 \mathrm{~g} / \mathrm{t} \mathrm{Ag}$ and $1.7 \mathrm{~g} / \mathrm{t} \mathrm{Au}$. Geochemical sampling and geophysical (Induced Polarization) surveys produced

Expatriate Resources Ltd -
Expatriate and Nordac form Eureka joint venture
Expatriate Resources Ltd

## EXR

Shares issued $14,347,500$
1999-04-26 close $\$ 0.57$
Wednesday Apr 281999
Also Nordac Resources Ltd (NRQ)
Dr. Harlan Meade and Mr. Douglas Easton report
Expatriate and Nordac have formed the Eureka joint venture (EJV) to explore for gold within a 12,300 square kilometre area in Western Yukon. EJV interests are owned 50 per cent by Expatriate and 50 per cent by Nordac. The project area lies within the Tintina gold belt and covers the richest placer districts in Yukon. EJV landholdings include four recently staked prospects (Eureka, Armenius, Track and Forty Mile properties) and two volcanogenic massive sulphide targets (Top and River properties). Terms related to EJV's formation require Nordac to transfer its 100 per cent interest in the Eureka 1-56, Armenius 1-16, Track 1-68; Top 1-24 and River 1-24 claims to EJV. Expatriate will contribute its 100 per cent interest in the Forty 1-20 claims to EJV, repay Nordac's staking costs for the: transferred Eureka, Armenius and Track claims, pay for the staking of an additional 318 claims and finance preparation of technical summaries describing: $:$. the prospects.
The Tintina gold belt extends for 2,000 kilometres in a broad arc across Alaska and Yukon. It has long been recognized for its highly productive placer camps, including the world-famous Klondike gold field. In recent years a number of major hard rock gold deposits have been discovered such as Fort Knox, True North, Donlin Creek, Pogo, Brewery Creek and Dublin Gulch. Many of these discoveries lie within established placer camps. Total gold production and reserves within the belt are estimated at 69.2 million ounces and this figure is expected to grow dramatically as exploration accelerates.
The Eurekarand Armenius properties consist of 390 adjoining claims $(7,800$ hectares) 60 kilometres by road southeast of Dawson City. The properties cover the headwaters of Eureka and Black Hills Creeks which together produced more than 140,000 ounces of placer gold. Records from the placer operations indicate that the gold in both creeks is relātively coarse and often is attached to quartz * grains, and that the fineness, (purity) of the gold systematically decreases in the fupstream direction: These facts suggest that the gold is derived from nearby bedrock sources. This conclusion is further supported by strongly anomalous results for gold and key indicator elements from geochemical analyses of stream sediment samples taken from the creeks. The left fork of Eureka Creekis particularly interesting. with very anomalous values for gold, arseñic, antimony and *mercurys These values compare favourably with results from streams draining the gold zones comprising the nearby Brewery Creek mine. Relatively little hard rock

exploration has been performed in the area and any work done has been limited by poor bedrock exposure. However, placer miners have discovered three gold showings where their workings cross the Armenius property. The showings are each about two kilometres apart and are alledevelopedinattered and quartz? veined, Yukon-Tanana Terfane metasedimentary rocks in the immediate footwall: of a regional scale thrust fault. No intrusive rocks have been mapped on either property but large areas of Cretaceous volcanic rockslie immediately to the north. The geological setting and geochemical signature are characteristic of lower temperature distal style mineralization like that in the Donlin Creek deposit of southwest Alaska.
-Fhe road accessible Forty Mile property consists of 20 claims ( 400 hectares) about 75 kilometres northwest of Dawson City. This exploration target closely resembles those at the Eureka and Armenius properties. The claims are immediately upstream from placer workings that have produced 14,000 ounces of gold. Government geologists report quartz-siderite veins with visible gold have been exposed within sheared and altered metasedimentary rocks along a large thrust fault.
The Track property lies 50 kilometres northwest of Dawson City and comprises 68 claims ( 1,400 hectares). It covers multielement geochemical anomalies and two previously drilled tungsten showings developed in skarnified metasedimentary: :, rocks adjacent to a large Cretaceous intrusion. The claims cover part of a broad : : magnetic low and lie about four kilometres south of the Tintina fault zone, a major high-angle structure. There is no record of systematic gold exploration on the property. Although limited analyses of tungsten bearing core returned mostly low gold values, encouraging results were obtained from two prospecting traverses. Specimens of creek float yielded moderate gold values ( 2.7 grams per tonne and 1.2 grams per tonne) with uncommonly high bismuth values (1,530 and 2,140 parts per million respectively).
The Track property shares several features common to known deposits in the Tintina gold belt, including its association with Cretaceous age intrusions, its low magnetic susceptibility and its strong lithophile geochemical signature.
The Eureka joint venture is still formulating its exploration programs for these properties and is considering various alternatives, including joint ventures.

## Expatriate Resources Ltd -

Nordac and Expatriate begin 1999 exploration in Yukon
Expatriate Resources Ltd
EXR
Shares issued 14,347,500
1999-06-15 close \$0.47
Tuesday Jun 221999

## 1999 Exploration Commences

Tuesday, June 22, 1999 - Alan Archer, CFO and Director, is pleased to announce that exploration on the Company's Yukon properties is underway.

A crew has just completed preliminary prospecting and geochemical orientation studies on the Eureka, Armenius, Track and Forty Mile properties which lie within the highly prospective Tintina Gold Belt. These properties are owned by Eureka Joint Venture (50\% Nordac Resources and 50\% Expatriate Resources). The work has relocated a number of old showings on the properties and discovered new areas of vein and skarn mineralization. When assays and geochemical results are received a follow-up program will be designed for later in the summer Severaliseniormining
$₹$ companies have expressed interestan the propertiespand a representative of one company has already conducted an examination of Eureka and Armenius with Nordac geologists.

The crew is mobilizing to the Quarterback property today and will be conducting hand trenching, geophysical surveys and soil sampling to further evaluate replacement type silver-zinc-lead-copper mineralization discovered in 1998. This promising prospect is a potential open pit target.

In early July excavator trenching will begin at the Blue Heaven property. This work will focus on extremely high grade silver-lead veins. Where practical this mineralization will be hand sorted and bagged for shipment to a smelter. These veins have considerable potential for small scale mining as indicated by assays such as $10,561 \mathrm{~g} / \mathrm{t}$ silver across 0.94 m . The trenching will also continue to test replacement style mineralization in the vicinity of a 1998 trench which assayed $65.5 \mathrm{~g} / \mathrm{t}$ silver, $3.6 \%$ zinc and $5.0 \%$ lead over 35.8 m . This zone is genetically related to the high grade veins but represents a separate bulk tonnage target.

Nordac Resources Ltd.
Phone: 604-688-2568 Fax: 604-688-2578
E-mail: nordac@nordacres.com

## YUKON MINING INCENTIVES PROGRAM

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File No. 93-010
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## SUMMARY REPORT

## JAMES S. CHRISTIE \ GIMLEX ENTERPRISES LTD 1993 PROSPECTING AND RELATED ACTIVITIES

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\text { NTS } 1150-10
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## Gyppo and childs Creek Areas Yukon Territory

December 19,1993.


## INTRODUCTION

Prospecting in 1992, funded in part by a YMIP Grant, resulted in discovery of significant gold geochem anomalies on the GO and CG claims on Gyppo Creek and Childs Creek. These discoveries resulted from reconnaissance prospecting traverses which relied heavily on soil geochemistry because the areas have little natural outcrop, and conventional prospecting is not very effective.

The 1993 proposal and current YMIP Grant were directed to following up some of the geochemical anomalies of the previous year with more detailed sampling, and extending the reconnaissance work into immediately adjacent areas which appeared to be of interest. The work completed during the season utilized the knowledge gained in the previous year as proposed, and claims were acquired on lower Gold Run Creek, but it was too late in the season to get any work done there in 1993.

## SIGNIFICANT RESULTS

GYPPO CREEK AREA \#1
Soil and rock chip sample results have shown the anomalous gold geochemistry to extend over a large area ( $1000 \times 1000 \mathrm{~m}$ ) between Gyppo and Rob Roy Creeks, and it probably extends to the northwest under cover of the Dominion Creek floodplain. This area is worthy of a lot more exploration work in the future.

Auger drilling in Dominion Creek valley ( RR 3 and 38 claims ) about 2 km southwest of the large soil anomaly at Gyppo Creek gave "ore grade " results from 3 of 53 holes. The drill holes are on a $100 \times 300 \mathrm{ft}$ grid ( Map 93-2).

## CHILDS CREEK AREA \#2

A 1992 silt sample collected north of Barite Pup ran 170 ppb gold. This was followed up with more sampling and staking in 1993. Mineralized float was found just upslope of the original anomalous silt and an assay of $.414 \mathrm{oz} / \mathrm{t}$ gold was obtained. Some highly anomalous soil samples were also obtained (Fig. 1.), and more work will be needed in this area in the future.

Reconnaissance work immediately north of the CG claims (1992) indicated that sulfide mineralization occurred in a fairly large area on the west flank of Eureka Dome, on the divide between Childs and Eureka Creeks. Anomalous results had been obtained from float the previous year. The EG claims were staked, and results of silt. samples, collected in the headwaters of Eureka Creek were highty anomalous ( up to 2170 ppb gold.). More claims were staked to cover this large anomalous area (Fig. 2. and Claim Map 1.), but time did not permit any follow - up in 1993.









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PETER ROSS

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thaw $c+700$.

$$
c+725
$$

$$
c+750
$$

$$
c+775
$$

thaw $C+800$

$$
c+825
$$

$$
c+850
$$

$$
c+875
$$

thow $c+900$
c+926

$$
c+950
$$

$$
c+975
$$

thow $(C+1000)$

$$
c+1025
$$

These hill are getting stepber
as ase as 9 als!!!
older.!!

$$
c+1050
$$

$$
C+1075
$$

thaw CAl100

$$
C+1125
$$

$$
c+11 s 0
$$

$$
c+1175
$$

$\checkmark \quad \frac{c+1175}{C+120)}$ wedbopen

16 TUNE
$c+1325$

$$
c+1350
$$

$$
c+1375
$$

U Ct 1400

$$
C+1425
$$

$$
12+1450
$$

$$
c+1475
$$

$\cdots \frac{C+1500}{C+1525}$ stoney

$$
\text { ct } 1550
$$

$$
c+1575
$$



$$
6+1650
$$

$$
c+1675
$$

$\checkmark \frac{c+1700}{c+1725}$ stoney

$$
\begin{aligned}
& c+1725 \\
& c+1750 \\
& c+1775
\end{aligned}
$$

$V$ Ct 18006

$$
\begin{aligned}
& c+1825 \text {-pmagrond } c+2475 \\
& c+18550
\end{aligned}
$$

$$
\text { ctls } 50
$$

thaw $\frac{C+1895}{C+1900}$

$$
\begin{aligned}
& (C+1900) \\
& \frac{c+1925}{c+1950} \\
& c+1975
\end{aligned}
$$

$\checkmark$ (c+2000) brown desix

2000

$$
\begin{gathered}
c+2025 \\
c+2050 \\
c+2075 \\
x(c+2100) \text { sheample } \\
c+2125 \\
c+2150 \\
c+2175 \\
c+2200 \\
c+2225 \\
c+2250 \\
c+24275 \\
c+2300 \\
c+2325 \\
c+2350 \\
c+2375 \\
c+2400 \\
c+2425 \\
c+2450 \\
c+2475 \\
\text { thaw } c+10
\end{gathered}
$$

22 soils now



$$
\begin{aligned}
& 17 \text { gene } \\
& 2000
\end{aligned}
$$

Arvizle to heavy rain all day, Yeoterday-spent $131 / 2$ hours on a 25 sample line. Exhausted. Did not go out.
Opganizny gear + samples tape
next day,

18 JUNE

Rained on + off -all day. Cleared up around $6 \frac{00}{p m}$.

Took some samples near lat camp
ER3-ER9 - at camp.

Took some samples at stream where road crosses if

$$
\text { ER } 10-16
$$

ER 10 - sugary gt - green - frown stain
ERII - gK - ordchs + holes - dark brown
ER12-gt-sgme green areas
ER/3-gt-blush t sulphides
ER/3-gt-bluish t sulphides
BR15 AT Spice sim BCI6

$$
\begin{array}{r}
14 H R \quad 19 \text { JUNE } \\
2000
\end{array}
$$

Went up $s$ lino -areas thawed. Did $s+56$ no sample (resteip) $V S+250$ sample 18 " deep $\cup S+4508^{\prime \prime}$ deep very wen

$$
\begin{aligned}
& v s+585 \pm 8^{\prime \prime} \\
& V S+650 \pm 6^{\prime \prime}:
\end{aligned}
$$

$$
\angle S+850
$$

Foray

$$
\begin{aligned}
& \begin{array}{c}
s+750 \text { past } \\
s+775 \\
s+800 \\
s+825 \\
s+850 \text { " } 66^{\prime \prime} \text { deep } \\
s+875
\end{array} \\
& 5+200 \\
& 57925 \\
& \therefore \frac{s+950}{s+975} \\
& 5+1000 \\
& s+1025,1034 \text { post } \\
& \checkmark \frac{(5+1050) \pm 6^{\prime \prime} " \text { sloffey, storey wen }}{s+1075} \\
& 5+1100 \\
& \sqrt{\frac{s+\frac{s+1125}{1150}}{s+1175}} \frac{s+1200}{s+1225} \\
& \text { Hans } \\
& \frac{s+1200}{s+1225} \\
& s+1225 \text { : Toparea }
\end{aligned}
$$

19 TUNE

$$
2000
$$

Hhaw $\beta+2000$ (18 much on permorfout

$$
\begin{gathered}
\frac{\beta+2025}{\beta+2050} \quad=\text { doubfful } \\
\frac{\beta+2075}{\beta+2100}
\end{gathered}
$$

z"ompermafrost
went bacp along $2 \times 2$ 'steij
of Bline $x$ samples
t Aid Hem
$\checkmark$ (BF1000 verydeep slop-goo
$\because B+$ Yoo 4 "on petmafiost brown dint
$\sqrt{(B+800} 10^{4}$ deep Red bo soil
$\checkmark B 77006 ":$ Rd br "
$\checkmark(B+600) 3^{\prime}-4^{\prime \prime} "$
$V(B+500) 12^{\prime \prime} " " \mathscr{L}$
$V(\beta+400) 10 " \pi "$ "
$\checkmark(B+300) 10-12 ": " 4$
sat 12
back 2 in momisys wee

$$
\begin{aligned}
& \text { alone } \\
& \begin{array}{l}
220^{\circ} \text { alone } 19 \text { JUNE } \\
\downarrow \quad 2000
\end{array} \\
& \frac{(B+1300)}{B+1325} \text { done } 12 \text { fine } \\
& \text { B+1350 } \\
& \text { B+1375 } \\
& \begin{array}{c}
B+1400 \text { Ordint } \\
B+1425=12 \text { " }
\end{array} \\
& B+1425=12 \text { " } \\
& \text { B+1450 } \\
& \text { BHACAS } \\
& \frac{(\beta+1500) "}{\beta+1525 "} \\
& \text { B+1550 } \\
& \text { B+1575 } \\
& \frac{\angle B+1600}{\beta+1625 "} " \text { loth roots } \\
& \text { B+l650 } \\
& \beta+1675 \\
& \frac{\square(\beta+1700) \text { verydeg Dlach much over }}{\beta+1725}+\frac{\beta+1675}{\beta+1750} \text { very weR browndint } \\
& \text { phow } \frac{B+1875}{B+1825} \text { ditct-sample }=1810 \\
& \text { B+1850 } \\
& \text { B+1875 } \\
& \sqrt{\frac{\beta+1875}{\beta+1900}} \frac{\beta+1925}{} \text { deep much on darh brown } \\
& \beta+1950 \\
& \text { B+1975 }
\end{aligned}
$$

34.4.

20 TUNE 2000
Comp day, Hester day we left at 12 noon + came bach ap

$$
\begin{aligned}
& 2^{00} \text { is morning, } 2 \text { days ac } / \\
& =/ 4 \text { loup. }
\end{aligned}
$$

Rained again at nite -lucky wedid not go out.

ORganized gear $x+$ samples. tape fer NexT HRẏldaye

Did not go out.
Rained from $5 \% \mathrm{~m}$ last lite as to about $6 \frac{90}{\mathrm{pm}}$ this nite. Now at $7 \% \mathrm{~m}$ semi - cleared up. It a good trip so fart, Organized gear + sample $\alpha$ type for next day,


$$
10^{30} 1 \frac{00}{p m}=14 \frac{1}{2}+42,22 \text { TUNE }
$$

Nice to see cloud e that wont souk us!
$\sqrt{(D)}$
$10^{11}$
$0+25$

$$
0+50
$$

$$
0+75
$$

$$
\times \frac{1+1]}{0+100} \text { thaw }
$$

$$
0 \times 125
$$

$$
0+150
$$

$$
0+175
$$

$$
\frac{x \frac{p+200}{D+225}}{} \text { thaw }
$$

$\checkmark$ (1+600 6 'under mos

$$
\begin{gathered}
D+250 \\
D+275 \\
\times\left(\frac{D+300}{}\right. \text {, thaw } \\
D+325 \\
D+350 \\
D+375 \\
x \sqrt{D+400} \\
D+425 \\
D+450 \\
D+475 \\
x(D+500 \text { haw } \\
D+525 \\
D+550 \\
D+575
\end{gathered}
$$

mess $450-560$



22 TUNE

$$
\begin{gathered}
\frac{D+600}{D+625} \\
D+650 \\
D+675 \\
\times(D+700 \text { thaw } \\
D+725 \\
D+750 \\
D+775
\end{gathered}
$$

$x \frac{0+800}{0+825}$ thaw

$$
\frac{0+825}{0+850}
$$

$$
0+875
$$

$\frac{V(900}{D+925} 3$ sand grit usator the le

$$
\frac{0+950}{0+975}-970 \text { posts }
$$

$x \frac{(D+1000)}{0+1025}$ Haw

$$
071025
$$

$$
\begin{aligned}
& x(p+1075 \\
& x+1109 \text { thaw } \\
& p+1125 \\
& 0+1150 \\
& 0+1175 \\
& x\left(\frac{D+1200)}{D+1225}\right. \\
& D+1250 \\
& 0+1275 \\
& (D+1300)
\end{aligned}
$$

$$
0+1050
$$

22 TUNE

$$
2000
$$

$$
\begin{aligned}
& D+1325 \\
& 0+1350 \\
& V \frac{0+1375}{D T 1400} 6^{0+1425} \text { wet brown mud } \\
& 0+1450 \\
& \frac{0+1475}{1509 \text { top }}, 1470 \text { psis } \\
& \sqrt{\frac{D+1503}{1+1525}}=12 \text {-peri } \\
& 0+1550 \\
& 0+1575 \\
& \frac{0+1600}{D+1625}, 2^{n} \text { dry } \\
& 0+1650 \\
& 0+1675 \\
& \frac{\sqrt{D F 1700}}{0+1725} 12 " d y \\
& 0+1750 \\
& 0+1775 \\
& \sqrt{\frac{1+1800)}{0+1825} 12^{\prime \prime}} \\
& 0+1850 \\
& \frac{\sqrt{D+1900}}{D+1925} 12^{n \prime 2} \\
& 0+1980 \\
& \frac{1}{\frac{0+1975}{n+2000} \text { sispor }}
\end{aligned}
$$


ONE

$$
\begin{gathered}
D+2025 \\
D+2050 \\
D+2075 \\
V+2100 \\
D+2125 \\
0+250 \\
+2175 \\
\frac{D+220012^{\prime \prime}}{D+2225} \\
D+2250 \\
D+2275 \\
\frac{D+2300}{D+2325} 3^{\prime \prime} \text { an permafrost } \\
D+2350 \\
D+2375 \\
\frac{D+2400}{D+2425} 12^{\prime \prime} \\
D+2450 \\
D+2475 \\
D+2500 \text { D } 15^{\prime \prime}
\end{gathered}
$$



$$
\begin{aligned}
& V(E)=T /(1999)=3^{\prime \prime} \\
& E+25 \\
& E+50 \\
& E+75 \\
& \checkmark \frac{E+100}{E+125} 12 " \text { br bl } \\
& \text { Et150 } \\
& \text { Haw } \frac{E+175}{E+200} \\
& E+250 \\
& \text { Et275 } \\
& \checkmark \frac{\overline{E+30 \delta}}{E+325} \pm \delta^{\prime \prime} \text { depo, wex } \\
& 12+350 \\
& 5+375 \\
& \sqrt{5+400} 10^{2} \\
& E+450 \\
& 5+475 \\
& \checkmark E+500 \text { "mud lole } \\
& E+525 \\
& 5+350 \text { 530 posit } \\
& E+575 \\
& \text { Haw } \frac{E+600}{E+625} \\
& E+650 \\
& E+675
\end{aligned}
$$



pith up old thawed 23 JUNE
cline
$1+18^{4} 2000$
$X \mathrm{Ct} 1000$ thaw a gain
$\checkmark$ ct $9008^{24}$
$\checkmark C+800 \quad 15^{\prime}$
$\checkmark$ Ct $70012^{\circ}$
$X c+600$ thaw again
$X C+50010-12^{4}$
Ctsoo $10-12$
lot of organics + mud

$\triangle$.
thaw
$\pi 介$

(Ft100) no sample tailsnig
F+12s mined asen

$$
F+150
$$

$F+175$
+200 weny cteep
thaw $\frac{(F+200}{F+225}$

$$
\begin{aligned}
& F+280 \\
& F+275
\end{aligned}
$$

thew $F+300$
$F+325$
$F+350$
$F+375$
than $\frac{E+400}{E+425}$

$$
F+450
$$

$$
E+275
$$

- Hhaw $E+500$

Stere
PROHASKA + WOREW cameky



Nin2
24 TUNE

$$
\begin{aligned}
& F+525 \\
& F+550 \\
& F+575 \\
& F-600 \\
& F+625 \\
& F+650 \\
& F+675
\end{aligned}
$$

$$
2000
$$

$$
\begin{gathered}
V+600 \\
F+625 \\
F+650 \\
F+675
\end{gathered}
$$

Hhav E4700

$$
\begin{aligned}
& F+725 \\
& F+750 \\
& F+775
\end{aligned}
$$

$\checkmark \frac{E+800}{F+825} 4^{E \prime}$ on permafiosd

$$
F+850
$$

$\sqrt{F+8+875}$

$$
\begin{aligned}
& F+925 \\
& F+950
\end{aligned}
$$

$$
F+975
$$

thaw $\frac{1-+975}{F+1000}$
$\frac{\text { thaw } \frac{1 F+10007}{1+1025}}{\frac{1+1020}{}}$

$$
F+1050
$$

$$
V \frac{F+1075}{\frac{F+1100)}{F+1125}} \pm 5-6^{\prime \prime}
$$

Ftl1s8

Haw $\frac{5+1175}{(E+1200)}$

サNE

$$
\begin{aligned}
& 24 \text { JUNe } \\
& F+1225 \\
& F+1250 \\
& F+1275 \\
& V \frac{\sqrt{F+1308} \pm 6^{11}}{F+1325} \\
& F+1925 \\
& F+1950 \\
& 5+1975 \text { - Poall } \\
& v(F+2000) \\
& 1+2025 \\
& 1 F+2050 \\
& F+2075 \\
& \checkmark \text { EA } 1400155^{\prime \prime} \text { emph } \\
& \text { Ft }{ }^{4} 25 \text { bigloorn } V(F+2100 \\
& F+1450 \\
& F+1475 \\
& V(F+1500) 15^{11} \\
& \text { F+1525 } \\
& 1900 \rightarrow \text { Feuch } \\
& F+1550 \\
& F+1575 \\
& \frac{F+1600-3 "}{F+1625} \\
& \begin{array}{c}
\text { = LHoan } \\
\text { uct }
\end{array} \\
& \text { waldstuch } \\
& 12+1650 \\
& F+1675
\end{aligned}
$$

$$
\begin{aligned}
& \sqrt{F+1875}
\end{aligned}
$$

25 June 2000
Haw $5+50$ dug out deeper
again now 3 temen

bofore

$\checkmark$ At1oo $10 "$ drei
$\checkmark(A+150) 12-15^{\prime \prime}$ mose meddy/not gantly
$\checkmark(14+200) 6-10^{\prime}$
( $4+250) 12-14^{\prime \prime}$
(1+300 upto $8^{\prime \prime}$
$\checkmark$ A+3S0) up to $18^{4}$

25 JuNe 2000
A+400 done before
doneat 50

thou $\frac{1+62}{\frac{A+650}{1+65}}$


A+925
$\checkmark(A+950) 1 / 2-2^{\prime \prime}$ blue brown
$\frac{A+975}{1+1000} 6^{\circ}$
20 'From poss


26 JUNE 2000
Camp day.
ORganizing gear + samples $x$ tyke for nest day.
Hans left. Spending a lot of time on torgaibring sill bags. paperwork + malang up flay station

Last 4 days

$$
\begin{aligned}
& \text { Rect ares a problem. }
\end{aligned}
$$

Last four day p



28 TUNE

Camp day,
Lotof rain . $12-4^{30} 7$
Last 2 days - haje-like a fire
haze but no smoke smell?
organizing gear +samples
tape for next day,




Camp day,
fotof rain, $12-4^{30}$ ?
Last 2 days - Lage-like a fire
Rage but no smoke smell?
organizing gear tramples tape for nest o day,

29 JUNE
$\checkmark(s+50$ sloppy sand mud

$$
\begin{aligned}
& \checkmark(A+650) \&-S^{\prime \prime} \\
& \checkmark(A+700 \text { 6" mud- roots } \\
& \checkmark A+7502-3= \\
& \sqrt{A+800} 6-84 \\
& \checkmark A+8508^{\prime \prime} \\
& \checkmark \text { A+900 } 2-3^{4} \text { i } 1 \text { corner }
\end{aligned}
$$

II



Drovet Dawson aly

$$
22,700
$$

Saw Carl sand bery at ge creeh, mined on Itenderon for.
wH


$$
\text { wH amve } 222,560
$$

In B.l.-called apo
people fond cut a fout 60 nib Aiver

$$
\begin{aligned}
& \text { - Ulondile Freight Katheen } \\
& \Rightarrow \text { Uanikieny Io Fowler } \\
& \Rightarrow \text { Radis } \pi<3-7836
\end{aligned}
$$

mexhanic Temondrou acroar i. 3/4 有 i am

$$
=2^{1 / 2} \text { deep }=0 / C=
$$

GOT OCT 7 Bo 60 mile liver
Tooligh - warthef Bent Savage
come bach avos.
Said I should trey ix the
would le by to help.
about 2 ' deep
Iseucel no.

3 guy- new miñen of
Matson Creel. They cuenterves twaitet on o the cedc. Reses them than 2-now.
CRiois-gmestatlarx
thinh Ploch in ruined. Tley pulled me across-

Nowsiting in ney gone-drained motor-abrout
2 litén fivates is
$-2000=?$

- bloch

$$
=2800-3000
$$

- prob best
- to junkit
- andgrown attle hed to my
gume genc

$$
27 J u<y
$$

$$
2000
$$

"IAting for 3 guye to come bach- organize sonctling Rese.

- Pest to leare gme Rese
- Get Hams F tanofer gear
- Then - Rental trueh
- or trans truen
-or trans fruch

Noone on road

- Piver gone dours
- 3 guypllah - Eses 2 days
they shial
(new placer)
3 guy came Lack at $1 \frac{0}{a m}$ gave
here.
Hem message t phone to trans7 Then at $3 \frac{30}{}$ - old placer guy ( 4 mi)
(brothertotastag mo to Pi, my came by - Dud dy knew hans kids - hellcontact tans 1 me - Foo

$$
\begin{aligned}
& \text {-should get used } 3 \text { so } \\
& \text { motor dat Callesoin } \\
& \begin{array}{c}
\text { atreduon gold } \\
\text { Bo prom }
\end{array} \\
& \text { - maybe worth it to tex } \\
& \begin{array}{r}
\text { (fix ditch - bearing, } \% \text { ) } \\
=\$, 0 \text { past }
\end{array} \\
& \text { =\$0 part } \\
& \text { = \$30 labour }
\end{aligned}
$$

29 JUL

$$
2000
$$

HANS las not come

$$
30 \text { J0Cy }
$$

Pulled acnors mín

$$
2000
$$

by coAneR - $\angle A L R$

$$
=50
$$

lide to Fown maton gen soo arin in guy
called up tans - 2 message

$$
\begin{gathered}
3 / 4 \cup<4 \\
\text { gooo }
\end{gathered}
$$

Repain, Fous EvAN mom
tox of ponblems
$\therefore$ Aluquot
Loxge thing x No

Becided t rent $1 / 27^{7}$
"/4solmonth
?
\& 20 insuname folay
" 1 "lass
 $24 B n$
8/5 Co-op rebuild

Eft DL $2^{00}$ called kyb

$$
x 4664
$$

$$
4782 \text { Bedroch ar }
$$

$$
118 \mathrm{~km}=\text { not manymiles }
$$

Talked to one a/ Brise boys Builx soad it at Muredy $\$$. Bux never got a olow thexe?


0 Line
frozen bepre
$\checkmark 0+1000$ wet
$\Delta+800 \quad 12^{\prime \prime}$ clamp
$0+700 \quad 10^{4}$
$\cdots 12^{\prime \prime}$

- $0+400$ 18" - stell hoors
$\checkmark D+30015^{\prime \prime}$
"D+200 15"
$\checkmark$ Dt 100 bock slide - dint notgrit?


Dtsoos

$$
\begin{aligned}
& +450 \\
& +475
\end{aligned}
$$


less rain/someat o wh

6 August 2000

$$
\begin{array}{r}
12^{40}-\text { past losin } \\
\text { sot sonk }
\end{array}
$$

$$
\begin{gathered}
\text { got sonkentalls duyp } \\
\text { asuell }
\end{gathered}
$$

No tot meal/really tiged
whentarh
Getting wex/3 dayp edds up on me!

$$
\begin{aligned}
& { }^{s t} \bar{V} s+1750 \quad 12^{\prime \prime} \text { good } \\
& \text { ( } x=\frac{s+2050 ~}{s+2150} \text { creeh }
\end{aligned}
$$

$$
\begin{aligned}
& 7 \mathrm{Avg} \\
& 2000
\end{aligned}
$$

1/2 Camp day. Organnized geaw + samples, planming

Cleered out neav by area


10


Camp is old - 2 ages - tamontrogme
soon 文 - Pollacha be


$$
7 \mathrm{Avg}
$$

$$
2000
$$

1/2 Camp day. Organized gear + samples, planmini,

Clected out neavby area


Camp is old - 2 ages - tamontramp

$$
\begin{aligned}
& \text { - Nalar } \\
& \text { soon \% - Porlasha } \\
& \text { AH minengsign! notespeble }
\end{aligned}
$$



$13 H R$


$$
V(G+100) 15^{\prime \prime} \text { - grit/slop }
$$

$$
V(x+1100) 1 S^{\prime \prime} \text { wetgoo }
$$

$\overline{\bar{n}}$

$\sqrt{\text { ExP00 12" gric wex }}$
$\sqrt{\text { E }-8006-8^{\prime \prime} \text { grit }}$


Almost did not gout
Rainin momoing

$$
\begin{aligned}
& 10^{20}-11^{30}= \\
& \text { But got. }
\end{aligned}
$$

zol
$\langle 14$ soils; maybe runed for 9 A ug.
sAugust
Et 150 done 23 June

$$
\operatorname{Er1650}
$$

$$
5+1675
$$

$1 \frac{(E+1700)}{E+1725} 12$ "mud $/ 3$ "girt + sons
E+1750
Et1775

$$
\begin{aligned}
& \qquad \frac{E+1800}{E+1825} 10^{\prime \prime}-\text { loots } / 20 \mathrm{ch} \\
& E+1850 \\
& E+1875 \\
& \checkmark\left(E+190010^{\prime \prime}\right. \\
& E+1925 \\
& E+1950 \quad 1960=T H(1999) \\
& E+1975
\end{aligned}
$$

$\frac{E+2000}{E+2025}$

$$
E+2050
$$

$$
\begin{aligned}
& E+2075 \quad 2093 \text { posth } \\
& 72100
\end{aligned}
$$

STheam at aboast,
2200sid nop
go s ix

$$
\begin{aligned}
& \text { Eti525 }=\text { T9 (1999) allore } \\
& \text { Et } 1550 \text {, } 1571 \text { poct } \\
& \text { red } x 2 \\
& \text { Red blue } \\
& \stackrel{(E+1600}{E+1625} 10^{\prime \prime} \text { damp } \\
& \text { tags }
\end{aligned}
$$

9 Avguat
1/2Camp Day,

cheched out area downotream


ER2S lound-stange cryptals (Bothare
ER26 lough sim pe $26(999)$ c cioturbed
jaiged edges) gromm
at
10 AUg
2000
Coren
$\frac{(G+1500)}{G+1525}$ done 27 Gune
3 day

$$
6+1575
$$

$$
6+1550
$$

$\checkmark \frac{G+1600}{G+1625} / S^{\prime \prime}$ good dry beige denix

$$
6+1650
$$

$$
6 \times 1675
$$



$$
G+1750
$$

$$
6+1775
$$

$\frac{(G+1800)}{6+1825} 18^{\prime \prime} \sin 1700$-feuer sobores

$$
G-1850
$$

$$
6+1875
$$

$V \frac{G+19003}{G+1925} / 12 "$ dest proit
$6=$ for bl d

$$
6+1925 \quad 6 " \text { br bl dindt Boch }
$$

$$
6+1950
$$

$$
6+975
$$

$\checkmark \frac{G+2000}{6+2025} 18^{n}$ bl dint $x \operatorname{sen}$ rouno

$$
G+2050
$$

tarbed
Fimy

$$
\begin{aligned}
& 6+2075
\end{aligned}
$$

$$
\begin{aligned}
& 6+2 / 50 \\
& 6+2175 \\
& 21 \%=\text { Clitek } \\
& \text { NS } a+2200 \text { srream }
\end{aligned}
$$

old sumple sites noydone
$100 \%$ oy
$u(C+1000$

$$
\begin{gathered}
36^{\prime \prime}-\text { done } 3 x \\
1^{*} A 20 \\
\text { slop lignét }
\end{gathered}
$$

$\sqrt{c+600}+36^{\prime \prime}$-done $3 x$

$$
\begin{aligned}
& \text { wet grit Istones } \\
& \text { no ursion }
\end{aligned}
$$

no wayles
sumpt day $=$ perfent

$$
4^{\infty 0} \text { pm tix sano }
$$

$$
10 \text { 30 PM agaw }
$$

Dlove to Lawson lity.
Bedroch Gr 4782
Dawzon aty $\frac{4900}{118} \mathrm{~km}$
V. gmc-foued $\frac{0}{4 \times 4}$. Eity.
twelhed to Brisebois brottles, he bueld noud As tht


12 Auguox 2000
Cande get helees pits guy o descíss
lept. trip. Grone-gettinig a rebueld motor Saw 2 wates gmen ol/ 9 Seems $\$$ sor mose people hane toasted moton in ligt wales faim most of day.l

13 August 2000
lain most of day. Fot helerepter gny finally.' Area may be overgroun now!' tanding? May not be poscible. Flowld go int chech out area lcampr (15)
scop


NOT DRIVE ABELE


100
100 $0^{h} W$
WMR1 - blach-dif slightly \& worth WMR2 - br orange - on road Gould not find road to top.
Tcampr

R土x
15 August


$$
\text { WMS I APAN }=\text { good wates }
$$

$$
=\text { sile lorit under } 1 / 2 \text { " }
$$

$$
\text { Few up } \frac{1}{8} 3 / 4
$$

* A can not belueve 9 forgot my med, shovel
tpan.
$\longrightarrow$ so ueed my paí plates
so it fook a lot of ture?
access steef $/$ Busny lold burn slow going!

16 AU'
$\cdots 2000$

reny uncomphatatel tams
tarps rolled up oler
sletp bay
sletp bag
seemo no place far gec te linef for 2 suter ? ? ? 1!!



Aucy
noo
$\mathfrak{q}$
ne t
ates
/8 Aagusx
Fred up the a mope conitor thatle 2000 Disjgle at G ADer fo. Only bix
Af flod leftx, Afraid of long main.
lame back biy different way
Or hel again Ino fault seen.




$\begin{array}{lr}\text { Now } \begin{array}{l}\text { nim } \\ \text { row -rain }\end{array} & 20 \text { AV 9 } \\ \text { Drizzle all day - fired out }\end{array}$
Drizzle all day - tired out
sui

going out - met Sean Paul les - But fine 2 truchs

- been to Henderson cr

$$
98-2-3 x
$$

$$
99-2-3 x
$$


(Nilenderson place.
21.A09 2000


Did not go out.

Rain is morning
Then realizes gone would notstare
left park nites on. left pant liteson.
Sat on HWAY

$$
\begin{aligned}
& 11-3^{30} \text { Iget battery } \\
& \text { jumper }
\end{aligned}
$$

VLAD Nedecher el came by.
jumped my goes is so munch for Pain on loft all day-2esping secret place Better do road jobs a naindays. come bach here later- 2 jobs Cant seem tot anythingdiy here. Got a good rest I Tho?



23 Aug
2000
G000 DAP SOSTAYEN SOOO HEARD WARK!
(rig2) WMS 4
(holes) WM PAN

$$
\begin{aligned}
& \text { - steps, moze } \\
& \text { - arif te } 3 / 4
\end{aligned}
$$

$$
\begin{aligned}
& \text { gift to } 3 / 4 \\
& \text { drain a sa }
\end{aligned}
$$

$\qquad$ drains a sadalle

Enomiwmss - júngle
(holeilwmpAns quit,
giartitór



25 AU9
2000

parped at put

+ wolked
+ wolked down

Walked along Eincha Cneeht over to thy to get a sild pan. Road these does not convert.

$$
N_{1}^{N_{\text {post }}^{\text {post }}}
$$

 cradle
slopping I mush pools/saps pole $-2^{\prime}-3^{\prime}$ nosand



28. Auy

2000
Helped foel do a clean up, priviled at 2 an / tired out!
saw puele gray quarts
+20 pieces tgold


Gt 12 of Av/30o yardo =? - 3 tugpsas wefl?
(NM) - mells?

- wate thetes bad
- Goll drilled crelh upt

$$
\begin{aligned}
& \text { top }=\text { no gold? ? } \\
& \text { coanse opld in }
\end{aligned}
$$

coame gold in sreek at mouth in Blach
Rard \& sumplef coune


when \& Eft moving - below
?! EOX stole my 2 this flows +1 she! (so now rubber to of he qu kite home)


walked $\%$ wert to thy F Finsad
trail to Eureka fonce $x$ found it
Fo east to $\sec ^{3}$ ENOBS
along arau =ernatti bedroch $x$ bno bs with stulnted afdess
some cill $=u p$ t 30 TMigh
flat sedinentary toel-Cayenthin
dipp sligitly to east. dipp slightly to east.

Left pack at bad/parked $\hat{1} 1$

toolate of go to ocity
now luch at canten


Nh

$$
1 \text { sept }
$$

$$
2000
$$

Left at $90^{\circ} \rightarrow$ dawson lett $6^{\circ}$ c at camp
$-1{ }^{\circ} \mathrm{c}$ Indian liver valley $\int$ mom or Pissed a' one spot many times. Uncovered a rock slowly. Showed teat it'! CumR25

Got to $D C$ - at about $1 \stackrel{90}{\square}$ or so. Tired out, $17 / 18$ days -lop of rain

Check out some places along road -on north slope down yo r Indian Rives.

$$
2 \text { seft }
$$

In Dawson Cily

In Dawoon Aty

$$
\begin{aligned}
& 3 \text { sepe } \\
& 2000
\end{aligned}
$$

Neliciopter could not thene me out, fot mozt if my seln pans dried out at llobs place. Thersurell

$$
5 \text { Sepx }
$$

$X$ Cant go in
6 Sepd
$r$ cant go or

Next $\rightarrow$ wounnen moose


27
out 28 sept at Noon

Pans
Setup camp at 830 - done.
To the for work
$3 x$ should ait some more trees.

Aid not go out
Rain $8^{\circ 0}$ \& late nit tat least.

cotelin AM
wMR2b at
comsib on bar on bend

hak

um 30 (f $21 / 2 \times 21 / 2 \times 21$
ereccia
fracheres weny in texestiny
$\omega m 31$ quants
neddish reddish tiflaen i cavitys
some larad $-3 x$ $-3 \times 3 \times 3$
bull unonts us
is m 3o area

Haxsuxicurkx



14c

$$
\begin{aligned}
& 13 \text { sep } \\
& 2000
\end{aligned}
$$

$N$ $\qquad$

wMS22 up 150

mearder ring meadow.

Coot bigel ar 9 too tate. exchavested
Accesso to sitern weny tiving
Remnant encax trail allway upo sofar
=very musty


$$
\begin{aligned}
& 14 \text { Seppt } \\
& 2000
\end{aligned}
$$

Did not go oux

Rain stavtex early - continuious untif 3/4, 7hen on loff. 8-stepay:
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$

- $\qquad$
- $\qquad$
_- $\qquad$
- $\qquad$
-- $\qquad$
$\qquad$
$\qquad$
$\qquad$
- $\qquad$

$$
\begin{array}{r}
15 \text { Sept } \\
2000
\end{array}
$$



28
$\neq 10 \%$


WMR 32-when washing dyfles
-tim/mn stains cracks
guasty
overcast - Of X rain wor comeny

- At diel-one I gor
to sample site
Now-8PM-RAavy Idin.

Z40 melent here $22201+10 \%$ 2500/12re
Adam (TN hel. said lot og snow at
sood (Horen cluime)

$$
\begin{aligned}
& 17 \text { sep } \\
& 2000
\end{aligned}
$$

Aifnot go out.

Rain on toff-allday.

wMR 35 at tim lanet

+ Mn stioin

UMR36 $\approx$ wMR 30
wMR37 Bleech woth intrude by $R y$

$$
\text { wmR38 } \sim \text { uml } 30
$$

wMR39 Qt practures - vugs LimixMr.
wMR4O 6 un boven pueies
gnalpag. galbay

19 Sept
good Hro fllow 2000


500 yed wms 26
600 yd tup - buck brush moudous

$$
\begin{aligned}
& \text { soo yd } \mathrm{y} \text { belou = bench/serta side } \\
& 980=\mathrm{umR} 41 \text { - qux? } \\
& \text { - Manqulder Aeavy sofe } \\
& \text {-cuofyy, cinach } \\
& \text { limx } 1 / 2 n
\end{aligned}
$$

whete mica

$1000 \mathrm{ycl}=\mathrm{mms} 27$

$$
\text { twm pisN } 27
$$

almosx
overeast al clay-no rain some mose frozen

some mos


$$
1190 \text { - Nouth sicle of stream }
$$

- wMRA4-dy -sulfbrite
pich-lem-vaps

$$
\text { on } \mathrm{N} \text { side }
$$

AMOrervast-telow zesio pm deas

- now istnize use urnter baq -tom. new doots

$$
\begin{aligned}
& \text { green yellow dreas }
\end{aligned}
$$

Did not go out!

AM Ruin hand - lighter to $21 / 3^{30}$ thenclear up south wind. Alamer than yester day.

22 Sept

yd o stream-moose trail ( 20 'to bier
-cat trail
stream

$$
\begin{array}{rl}
75 & 17 \\
515= & \text { wM S } 29 \text { most most } \\
& \text { com pen } 29 \text { gi } / 3^{\prime \prime}
\end{array}
$$

lot of Black sand
Pain to 12 - then cent out How some tain ax nets.
South winder teepee plaice urorm butbinien paine


Aid not go out.

Rain am wowclowdy
mosiof tinke
Radis $x$ wotk 4

$$
\text { now } \left.\frac{22}{23}\right)=01<
$$

fisied 3 .

$$
\begin{gathered}
24 \text { Sept } \\
2000
\end{gathered}
$$

Did not go out.
Rain 7-4 heavy

$$
\text { after }=\text { fog }
$$



Aid not go out.
Ram on toff - 3 先d day wa row Cant get be on rudio to
change 28- Oct / or so Need 2 more dayplof 3 .




Aid not go out.
Heavy snow at 700 Om -now still at $9 \frac{00}{p m o r}$ so.

Not safe to go ny ushre-tols under snow-canitsee anything. Patallstuff i' place. Alesippointed $x$ get zodays Too many incident a problem 29 aye $=4667$ only But got a good bon at this THeta area.!

Hope helicopter shows up on tine tomorrow.

$$
28 \text { sept }
$$

700 Foggy - to Helicopter did nor come iv.

$$
29 \text { sept }
$$

2000
Helicipter came in $10^{30}$ or sor Probably $-20^{\circ} \mathrm{C}$ à $m \mathrm{C} \cdot \operatorname{Cas} 2$ neter
gma suomotlopaeis
done, speed + deate nop wopleing - so can Ceave

$$
1 \text { oer }
$$

$$
2000
$$

1 pme-specdomete, heates
plot worlehing -socunt teave

$$
2 \text { odt }
$$

$\checkmark$ grenc - speed + heates fuced.

$$
\text { went * WH ferialle } \frac{300 x}{2000}
$$

end wH 224, 290
stant wH $\frac{222,873}{1,417}$
km n $1,4 / 70$ seed. broken

$$
1487
$$



$$
\frac{2 r}{r}
$$

$$
\frac{d}{t e}
$$

$$
\begin{aligned}
& \text { mileage }=1 \not \subset 87 K M
\end{aligned}
$$

$$
\begin{aligned}
& \begin{array}{l}
\text { target } \quad \text { wm } \quad \text { Rentat=2sdayp } \\
\text { Rental }=10 \text { Days Rn }
\end{array} \\
& \mathrm{KM}+=236 \mathrm{RM} \\
& 1 \mathrm{~m}=387 \mathrm{~cm} \\
& t=1100 \mathrm{KM} \\
& \text { DC-liver- } x \\
& \text { +i town } \\
& \omega H t \rightarrow \infty \rightarrow \omega H \\
& 1336
\end{aligned}
$$




$$
\begin{aligned}
& \frac{13 \text { sept } 2000}{\omega \cos 21 \quad 2 \operatorname{sel}} \\
& \text { wmpan21 pan } \\
& \text { cumpan } 22 \text { pan } \\
& \text { LSmest } 2000 \text { 2seld } \\
& \text { wmpan } 23 \text { pain } \\
& \begin{array}{l}
\text { WM AnN } 24 \\
16 \text { sept } 2000
\end{array} \\
& \frac{16 \text { sept } 2000}{\omega \cos 25} 2 \text { silt } \\
& \text { wm Pan } 25 \text { pam } \\
& \text { wMR32 floak } \\
& \frac{18 \text { sept } 2000}{\text { wmsib } 2 \text { siet }} \\
& \text { umPAN2l pan } \\
& \text { umR } 33 \text { foap } \\
& \text { UMR } 34 \text { floght } \\
& \begin{array}{l}
\text { ump } 35 \text { flogh } \\
\text { } \omega \text { OMR } 36 \text { flogh }
\end{array} \\
& \begin{array}{l}
\text { wmp } 36 \text { fown fogat } \\
\text { wimR } 38 \text { flogat }
\end{array} \\
& \therefore \text { ump } 39 \text { foloar } \\
& \text { wmRtO gral bay } \\
& 19 \text { sept alooo } \\
& \text { wms } 27 \text { zselt } \\
& \text { wMPAN28 pan } \\
& \text { wMR4l float }
\end{aligned}
$$

$\frac{31 \text { Avig } 2000}{\text { wis }^{13}}$
ums $13=\operatorname{sic} \alpha$
Wmpan 13 panconc.
whs 14 selt
whs 14 I siet
wipan 14 pan conc.
sesti2000
sept 2000
ImR25
wmR25
9 Sept 2000
wms 15
com PANIS
$2 \operatorname{sil} \alpha$
wMPANIS pan
cum PAN 16
wmR 26
10 sept 2000
wms 17
pon
compan/7
wMS 18
self
pean
wompan/8
11 sept 2000
wmpq7
wmR 28
WMR29
WMR30
wmR31
12 sep 120 ced
whs 19 zsilf
wmpan19 par
ams 20 rise
aMPan 20 NO Sample


$$
\begin{aligned}
& \frac{24 \text { Ang } 2000}{\text { NMS }} \\
& \text { NMS } 62 \text { self } \\
& \text { WM PANG pan conk } \\
& \text { WMR13 float } \\
& 25 \text { Auq } 2000 \\
& \text { WMR/4 " } \\
& \text { wMRRS I } \\
& \text { WMR/6" } \\
& \text { WMR17: " } \\
& \text { WMR18 " } \\
& \text { WMRIG " } \\
& \text { WMR } 2 \text { 4 } \\
& \text { WMS } 7 \text { 2silf } \\
& \begin{array}{l}
\text { WMS pan7 pancone } \\
\text { wMS } 8 \text { sild }
\end{array} \\
& \text { wmspans pan core } \\
& \text { Z7AUg } 2000 \\
& \text { wMS9 } 2 \text { sild } \\
& \text { cumpang pan oone } \\
& \text { WMRA float } \\
& 28 \text { Auq } 2000 \\
& \text { wMsco } 2 \text { selty } 1 \text { ams/l } \\
& \text { WMPAN } 10 \text { pan cone WMPan } 11 \\
& \text { WMR22 } \\
& 29 \text { Alug } 2000 \\
& \text { wM/512 } z \text { seld } \\
& \begin{array}{l}
\text { WMPAN/2 pan wro } \\
30 \text { AUC } 2000
\end{array} \\
& 30 \text { AUC } 2000 \\
& \text { umR } 23 \text { loose bedsoch } \\
& \text { wmR24 }
\end{aligned}
$$

2000
14 AUGUSF
WMR'I bedrouk
WMR 2
15 AUGUST
WMS:I 2baposild
wman/ I Hay - 1 b? about
$\frac{17 \text { Aug }}{\text { wmd } 3}$
WMR 4 bedroch 18 AUG
18 Aug
WMS 2 bags self
WMPAN2 pan cone
20 AUg
WMS 3 2bagsild
WMPAN3 pan cone
HANY
WMR S
UMR/5 float
UMR7
VMR 8
VMR'9
VMRIO
NMRII
UMR12
23 Aug
WMS 4 2sibt
WMPAN 4 pun CONC
aMSS 2 sild
GMMSS Lsild
NMMSPANS pancoxe.

$$
\begin{aligned}
& G G \text { Lne } \\
& 27 J G G \\
& 8 A G+100 \\
& 27 J G+200 \\
& 27 J G+300 \\
& 27 J G+400 \\
& 275 G+500 \\
& 275 G+600 \\
& 27 \sigma G+700 \\
& 27 \sigma G+800 \\
& 27 J G+900 \\
& 275 G+1000 \\
& 8 A G G+1100 \\
& 27 J G+1200 \\
& 27 J G+1300 \\
& 27 J G+1400 \\
& 27 J G+1500 \\
& 10 A G G+1600 \\
& 10 A G G+1700 \\
& 10 A G+1800 \\
& 10 A G+1900 \\
& 10 A G G+2000 \\
& 10 A G+200 \\
& 10 A G G+2200
\end{aligned}
$$

Fline


Eliñe



C Lovie
16 sume $C+100$
16 qume $C+200$
$l 60$ me $C+300$
16 gune $c+400$
$12 n$

23TNCt 500
10 Auy $C+600$
2ENC+700
23 NN $C+800$
$2 \mathrm{ZON} C+900$
10 Aug $c+1000$
$235 n c+1100$
16 fure $c+1200$
le fume $c+1300$
16 gune $C+1400$
15 gane $C+1600 \quad v$
16 gin $c+1700$ v
16 gane $C+1800$

$$
c+1900
$$

16 oune ct $2000 \quad \checkmark$

$$
\begin{aligned}
& c+2100 \text { No sample } \\
& c+2200 \\
& c+2300 \\
& c+2400 \\
& c+2500
\end{aligned}
$$

16 JuNE
s uñe

1. $\quad x$ s $x=$ Post
$29 \pi s+50$
11 fune $s+150$
19 gune $s+250$
inguxe $5+360$
19 gue $5+450$
19 gue $5+585$
19 que $5+650$
"Gune
$s+750$
19 fune $s+850$
19 que $s+950$
19 Gue $s+1050$
14 gue $s+1150$
1 gure $5+1250$
19 fune $5 t 1350$

- 

19 fune $5+1450$
19 Grene $s+1550$
19 埌 $5+16$ so


6 Aley
6Ang
bAlu $5+23 \sqrt{0}$
6 Auc $5+2450$

Bline
$X B \times$ tuiling


1sfume $\beta+1100$
12 gune $\beta+1200$
12 qune $\beta+1300$
12 gune $\beta+1300$
19 qume $\beta+1400$
19 yene $\beta+1500$
19 que $B+1600$
sgme $\beta+1700$
6 Avig $\beta+1800$
19 fine $B+1900$
6 Aur $B+2000$
6 Ang $B+2000$
6 Auq $\beta+2100$

A tine

$$
\begin{array}{lc}
\times A+0 X & =S+360 \\
25 J A+50 & v \\
25 J A+100 & u \\
23 J A+150 & u \\
25 J A+200 & v \\
25 J A+250 & v \\
25 J A+300 & v \\
25 J A+350 & V \\
11 \text { June } A+400 &
\end{array}
$$

$25 J A+450 \quad V$

| $25 \sigma$ | $A+5 C 0$ | 0 |
| :--- | :--- | :--- |
| $25 \sigma$ | $A+550$ | $V$ |

$\begin{array}{ll}25 \sigma & A+550 \\ 25 \sigma & A+60 \theta\end{array}$
$29 \mathrm{~J} \quad A+650$
$29 \mathrm{~J} \quad A+700$
$29 \mathrm{~J} \quad A+750$
$29 \mathrm{~J} \cdot A+800$
29 J A+850
295 A+900

$$
25 \pi A+950
$$

$$
\begin{array}{l:ll}
25 J & A+90 \\
25 J & A+1000 & V
\end{array}
$$

2000
SJUNE ER-2 floax
Hyome $E R-2$
18 gune ER 3
ER4

ERS
ERG
ER7
ER8
ER9
ER1O
ER"
ER12
ER13
ER14
ER15

$$
E A 16
$$

23 Jme ER 17 Bedroch
24 Gune ER 18
29 gune ER 19
29 gume ER 19
ER 20

$$
\begin{aligned}
& E R 20 \\
& E R み 1
\end{aligned}
$$

4 Ang ER21 (9PUP)
SAuy ER23
6Aur ER24 Bedroch
qANy ER25

$$
E R 2 b
$$





[^0]:    The Reka claims are underlain by thin-bedded Nasina Series quartzite. Breccia zones are associated with three major north to northwest fractures which cut across the property. The breccias consist of quartaite fragments cerneuted by limonite.and silica. Where the.most prominent fracture crosses the right fork of Eureka Creek, a zone of graphitic gouge 6 m wide is flanked by bleached, argillized, and pyritieed wallrocks.
    'Dawson Fidorado's soil sampling in 1989 outimed three anomalous areas. (1) Samples across the central breccia zone remmed values up to 520 ppm As and 180 ppb Au. (2) Values up to 496 ppb An were obsained from the head of the right fork where the westermost lineament crosses the ridge. .Baritic quartz float

[^1]:    The claims are underlain by a Permian or Triassic ultramafic body intruded along a fault which separates Klondike Schist to the southwest from Pelly Gneiss to the northeast.

[^2]:    Equipment/Function: Two Caterpillar D8H bulldozers and a Caterpillar D9G bulldozer

