

COMINCO LTD.

EXPLORATION

WESTERN DISTRICT

NTS: 82M/15W

DIAMOND DRILLING - 1977

RUDDOCK CREEK PROPERTY

KAMLOOPS M.D., B.C.

WORK PERFORMED

JUNE 28 - AUGUST 28, 1977

R. F. NICHOLS

| |
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| MINERAL RESOURCES BRANCH ASSESSMENT REPORT 6625 NO. _____ |
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COMINCO LTD.

EXPLORATION

WESTERN DISTRICT

16 JANUARY 1978

STATEMENT OF QUALIFICATIONS

I, Ronald F. Nichols, Geologist, with business address at 200 Granville Square, Vancouver, British Columbia, do hereby certify that I have participated in and supervised the diamond drilling programme and the logging of the drill core with W.E. Wiley, Geologist, and have assessed and interpreted the data resulting from said programme on the IT claims of the Ruddock Creek property.

I also certify that:

1. I am a graduate of the University of British Columbia with a B.Sc degree in Geology 1967.
2. I am a member in good standing of the Association of Professional Engineers of the Province of British Columbia.

Respectfully submitted: Ronald F. Nichols
R.F. NICHOLS, B.Sc.
P.Eng.

Vancouver, British Columbia

E X H I B I T "A"

DIAMOND DRILLING COSTS ON THE IT

CLAIMS LOCATED 60 MILES NORTH OF REVELSTOKE

51°47' N LATITUDE
118°54' W LONGITUDE

Diamond drilling costs incurred on the IT claims involve two separate diamond drill contractors. Costs listed below will be separated into three categories:

1. Costs common to both contractors.
2. Costs related to Martinson Bros. diamond drilling.
3. Costs related to H. Allen diamond drilling.

1. Costs Common to both Contractors.

Salaries:

| | |
|---|-------------|
| W.E. Wiley; Geologist Between June 28-Aug. 5 20 days @ \$110/day | \$ 2,200.00 |
| R.F. Nichols; Geologist Between July 5-Aug. 5 20 days @ \$100/day | 3,000.00 |
| F.D. Gill; Supervisor Between July 8-Aug. 29 7 days @ \$110/day | 770.00 |
| F.J. Ferguson; Surveyor Between July 5-Aug. 29 10 days @ \$90/day | 900.00 |
| Brenda Johnson; Expeditor Between June 28-Aug. 28 | 433.64 |

Camp Costs:

| | |
|---|--------------------|
| Jones tent and awning #37296 | 912.40 |
| Land Sea Power Ltd. #941 & 958 | 768.67 |
| Long year-sale of camp gear #4239 | 4,987.65 |
| Revelstoke Co-op #'s 53805, 53908, 60621, 57233, 59164 | 990.50 |
| Tundra housing #002621 | 59.33 |
| Acklands #098995 | 59.16 |
| B.C. Hydro #023051, 023162, 023170, 023304 | 137.50 |
| Alpine heating #3935 | 54.30 |
| Okanagan helicopters - camp support flights as per invoices 202438, 206405, 204721, 206420, 204725, 206479, 206505, 188830, 189331, 138315, 209477, 209045 | <u>3,095.31</u> |
| Total of shared costs | <u>\$18,368.46</u> |
| Divided by total footage (both contractors) of 5090 feet= | \$3.60/foot |

John J. Smith

2.

2. Martinson Brothers Diamond Drill Costs

Contract charges per invoices #129,130,131 \$36,595.80

Okanagan Helicopter for mobilization and demobilization plus drill moves. As per invoices 202310,206521,202323,206407,187697,206425,206467,206491,206509,2092779 9,344.95

Total Martinson costs: \$44,940.75

Divided by 2428 ft of XRT drilling=\$18.50/foot

3. H. Allen Diamond Drilling Costs

Contract charges per invoices #315,323 \$37,410.00

Okanagan Helicopter for mobilization-demobilization and drill moves as per invoices 206458,184868(partial), 206535, 209041(partial),206501, 209278(partial), 209283,206398,189311,189315(partial), 184289,206527 11,525.43

Total Allen Costs: \$48,935.43

Divided by 2662 ft of BQ drilling=\$18.38/foot

So total cost per foot claimed for:

- a) Martinson drilling 18.50 & 3.60 = \$22.10/foot
- b) Allen drilling 18.38 & 3.60 = \$21.98/foot

Ken J. Chel

DRILL DATA

FOOTAGE AND LOCATION OF DRILL HOLES AND TOTAL
ASSESSMENT CREDITS ON EACH CLAIM

1. CLAIM IT #3

Martinson Drilling

| | | | | | |
|---------|-------|----------|--------|------|----------|
| LG-77-3 | 80' | XRT Core | F-77-1 | 105 | XRT Core |
| LG-77-4 | 91' | " " | F-77-2 | 122 | " " |
| LG-77-5 | 47.5' | " " | F-77-3 | 122 | " " |
| LG-77-6 | 92' | " " | F-77-4 | 81 | " " |
| | | | F-77-5 | 82.5 | " " |

Total footage on IT #3 = 823' XRT Core

Total assessment Credit on IT#3 = \$18,188.30
823' x \$22.10

2. CLAIM IT #4

Martinson Drilling

Allen Drilling

| | | | | | |
|-------------|---------------|----------|-------------|------|---------|
| DDH-DG-77-1 | 86' | XRT Core | DDH-UG-77-9 | 408 | BQ Core |
| UG-77-2 | 100' | " | UG-77-10 | 408 | " |
| UG-77-3 | 93' | " | UG-77-11 | 433 | " |
| UG-77-4 | 98' | " | UG-77-12 | 658 | " |
| UG-77-5 | 104.5' | " | LG-77-7 | 355 | " |
| UG-77-6 | 120' | " | LG-77-8 | 400 | " |
| UG-77-7 | 120 | " | | 2662 | BQ |
| UG-77-8 | 101.5' | " | | | |
| LG-77-1 | 100.5 | " | | | |
| LG-77-2 | 71' | " | | | |
| | <u>994.5'</u> | | | | |

Total footage on IT#4 for:-

| | | | |
|--------------|--------|------------------|--------------------|
| a) Martinson | 994.5' | XRT @ \$22.10/ft | \$21,978.45 |
| b) Allen | 2662' | BQ @ \$21.98/ft | <u>\$58,510.76</u> |

Total assessment credits on IT #4 \$80,489.21

3. CLAIM IT #8

Martinson Drilling

T-77-6 -71' XRT Core

Total assessment credits on IT#8 = \$1,569.10
71' x \$22.10

4. CLAIM IT #10

Martinson Drilling

| | | |
|--------|------|----------|
| T-77-1 | 119 | XRT Core |
| T-77-2 | 93.5 | " " |
| T-77-3 | 103 | " " |
| T-77-4 | 119 | " " |
| T-77-5 | 105 | " " |

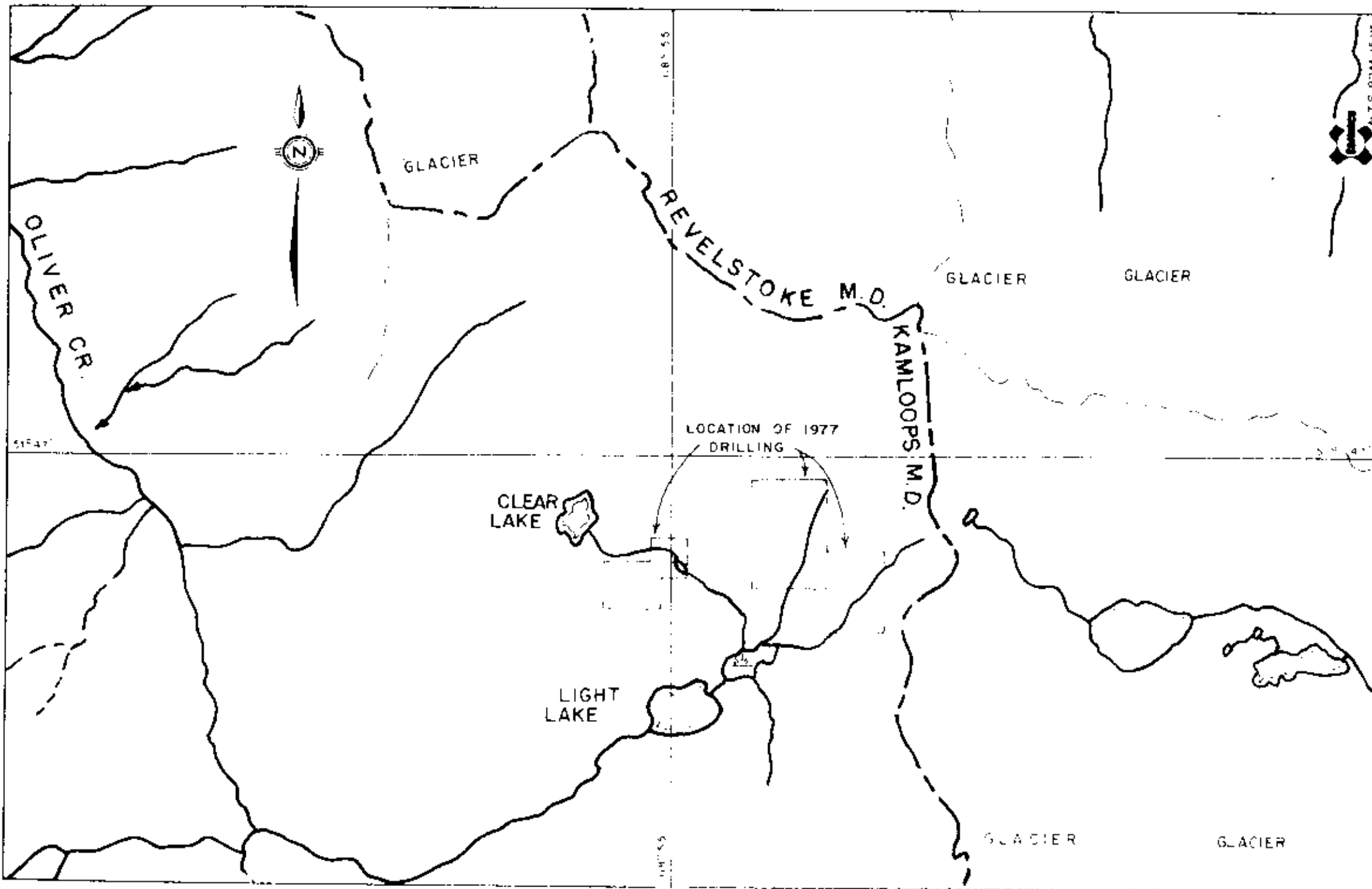
Ron Nichols

Total footage on IT #10 539.5'
and Total Assessment Credits on IT #10 = \$11,922.95
539.5' x \$22.10

All the core is stored in boxes at the lower camp site as shown on plate RUD-77-2.

All drill holes have been located by a transit survey.

For Medical



RUDDOCK CREEK PROPERTY
DIAMOND DRILLING - 1977

| | |
|------------|------------------|
| Drawn by | Traced by S.S.S. |
| Checked by | Revised by |

Scale 1" = 1/2 Mile Date September, 1977 Plate RUD-77-1

Drill Hole Record



Property Ruddock District Hole No. UG 77-1
 Commenced July 1, 1977 Location Upper G Zone Tests at Hor. Comp.
 Completed July 3, 1977 Core Size X-Ray RX Corr. Dip Vert. Comp.
 Co-ordinates 23, 597N 23212 E True Brg. Logged by W.E. Wiley
 Objective % Recov. Date July 4, 1977

Claim

IT. #4
T Brg.

Collar Dip

Elev.

7823.41

Length

86'

Hole No. Sheet

| Footage From To | Description | Sample No. | Length | Analysis |
|--------------------|--|---------------|--------|----------|
| 0 - 1 | CASING | | | |
| 1.0-8.5 | Qtz Feldspar Mica Gneiss with 2" pegmatite stringers. Core < 70° | | | |
| 8.5-9.5 | Quartz Biotite Gneiss, dark colour | | | |
| 9.5-13.5 | Quartz Feldspar Mica Gneiss, core < 60°, some minor staining | | | |
| 13.5-15.0 | Quartz Biotite Gneiss, minor garnet, dark colour, minor stain, core < 60° | | | |
| 15.0-24.5 | Pegmatite, grey, with muscovite and biotite, Quartz rich 23 to 23.5 | | | |
| 24.5-36.0 | Quartz biotite gneiss, sections more biotite rich than others. Quartz augen at 34.0 to 34.5 | | | |
| | section 36.0 to 60.0 is equivalent to mineralized section | | | |
| 36.0-38.0 | Fine grained dark rock (may be quartzite) sheared (?) quartzite 37 to 37.5 minor Pyrr. & pyrite. | | | |
| 38.0-40.5 | Calc-silicate - dark with greenish mineral in klobs, high silica | | | |
| 40.5-42.0 | Quartz biotite gneiss | | | |
| 42.0-43.5 | Fine grained dark rock, fine laminae, possible very minor very thin sphalerite lams. | | | |
| | Very siliceous possibly a mylonite. Est. trace 42.0-43.5 | 9526 | 1.5' | |
| 43.5-51.0 | Quartz mica gneiss - coarse grained possibly a gneissic pegmatite. Ground core 46 to 49 | | | |
| 51.0-52.5 | Calc-silicate with garnet-greenish coloured mineral with quartz. | | | |
| 52.5-53.5 | Quartzite grey | | | |
| 53.5-55.5 | Calc-silicate, greenish with quartz, probably some sphene. Core 60° | | | |
| 55.5-57.5 | Mixed calc-silicate and quartz biotite gneiss | | | |
| 57.5-60.0 | Quartzite with intermittent calc-silicate bands | | | |
| 60.0-61.0 | Quartz biotite gneiss Core < 70° | | | |
| 61.0-64.0 | Pegmatite grey | | | |

Don Michals

Drill Hole Record



| | | | | | |
|--------------|-----------------|-----------|-----------|-----------|--------------|
| Property | RUDDOCK CREEK | District | Hole No. | UC-77-2 | |
| Commenced | July 4, 1977 | Location | Upper G | Tests at | Hor. Comp. |
| Completed | July 5, 1977 | Core Size | X-Ray | Corr. Dip | Vert. Comp. |
| Co-ordinates | 23558.4N 23214E | | True Brg. | Logged by | WEW |
| Objective | | | % Recov. | Date | July 5, 1977 |

Claim

IT #4

T Brg.

Collar Dip - 90°

Elev. 7799.26

Length

100'

| Footage From To | Description | Sample No. | Length | Analysis |
|--------------------|--|----------------------------------|--------|----------|
| 0-3.5' | Pegmatite | | | |
| 3.5-5.5 | Quartz mica gneiss-schistose in part | | | |
| 5.5-7.0 | Quartzite, core angle 50° | | | |
| 7.0-12.5 | Pegmatite - gneissic sections | | | |
| 12.5-15.5 | Quartzite - some biotite, muscovite and feldspar | | | |
| 15.5-16.5 | Near solid sulfide with quartz blebs - sphalerite, pyrrhotite and pyrite | Est. 30% Zn, 15.5-16.5 9505 | 1.0 | |
| 16.5-20.0 | Quartz mica schist | Est. trace Zn, 16.5-20.0 9510 | 3.5 | |
| 20.0-25.5 | Mineralized quartzite, dark cherty to 22.0 - fine laminae; sphalerite, pyrrhotite, pyrite, trace galena. Core angle 60° - cherty section = mylonite | Est. 8% Zn, 20.0-22.0 9511 | 2.0 | |
| | | Est. trace Zn, 22.0-25.0 9512 | 3.0 | |
| | | Est. 20% Zn, 25.0-25.5 9513 | 0.5 | |
| 25.5-27.5 | Pegmatite | Est. nil, 25.5-27.5 9514 | 2.0 | |
| 27.5-29.0 | Well mineralized quartzite | Est. 15% Zn, 27.5-29.0 9515 | 1.5 | |
| 29.0-32.0 | Limestone - white, fine grained, possible siliceous with some quartzite and calc-silicate layers | Est. trace, 29.0-32.0 9516 | 3.0 | |
| 32.0-34.5 | Near solid sulfide - sphalerite, minor pyrite | Est. 40% Zn, 32.0-34.5 9517 | 2.5 | |
| 34.5-42.0 | Pegmatite-grey, greenish tinge with muscovite | Est. nil, 34.5-42.0 9518 | 7.5 | |
| 42.0-47.0 | Mineralized quartzite with some calc-silicate layers, sphalerite, some pyrrhotite and galena(?) | Est. 12% Zn, 42.0-47.0 9519 | 5.0 | |
| 47.0-48.5 | Pegmatite-rust staining | Est. nil, 47.0-48.5 9520 | 1.5 | |

Ben Nichols

Scale

Colour Print
& Dips

Drill Hole Record



Property RUDDOCK CREEK

District

Hole No. UC-77-2

Commenced

Location

Tests at

Hor. Comp.

Completed

Core Size

Corr. Dip

Vert. Comp.

Co-ordinates 23558.4N 23214E

True Brg.

Logged by

Objective

% Recov.

Date

Claim

IT #4

T Brg.

Collar Dip

- 90°

Elev.

Length

| Footage | | Description | Sample No. | Length | Analysis |
|---------|------|--|--------------------------|--------|----------|
| From | To | | | | |
| 48.5 | 53.0 | Mineralized quartz mica gneiss, mainly pyrrhotite and pyrite | Est. 7% Zn, 48.5-50.5 | 9521 | 2.0 |
| | | | Est. trace Zn, 50.5-52.5 | 9522 | 2.0 |
| | | | Est. 10% Zn, 52.5-53.0 | 9523 | 0.5 |
| 53.0 | 56.0 | Quartz mica gneiss - coarse grained | Est. nil, 53.0-55.5 | 9524 | 2.5 |
| 56.0 | 61.5 | Pegmatite, medium grained, gneissic in places | | | |
| 61.5 | 62.5 | Quartz-mica gneiss | | | |
| 62.5 | 64.0 | Pegmatite | | | |
| 64.0 | 68.0 | Quartz mica gneiss - schistose, 1/2" sphalerite layer cutting core at 40° near start schistosity 45° to core axis | | | |
| | | | 66.0-66.5 | 9525 | 0.5 |
| 68.0 | 71.0 | Pegmatite | | | |
| 71.0 | 75.0 | Quartz mica gneiss - schistose sections | | | |
| 75.0 | 76.5 | Pegmatite | | | |
| 76.5 | 99.0 | Quartz biotite gneiss - highly schistose, garnets, minor muscovite, pegmatite layers at 87.5-88.0 and 96.5-97.5, core angle 50° | | | |
| 99.0 | 100 | Pegmatite | | | |

Ron Mitchell

Scale

Colour Plot
& Dips

Drill Hole Record



Property RUDDOCK CREEK District Upper G Hole No. UG-77-3
 Commenced July 6, 1977 Location Upper G Tests at Hor. Comp.
 Completed July 7, 1977 Core Size X-Ray Corr. Dip Vert. Comp.
 Co-ordinates 23,487.7N 23,218.6E True Brg. Logged by NEW
 Objective % Recov. Date

Claim

IT #4

T Brg.

Collar Dig₉₀^o

Elev.

Length

93'

Hole No. UG-77-3 Sheet

| Footage From To | Description | Sample No. | Length | Analysis |
|--------------------|--|-------------------------------|--------|----------|
| 0-3.0 | Casing | | | |
| 3.0-4.5 | Pegmatite | | | |
| 4.5-5.5 | Well mineralized pegmatite (?) - Sphalerite and Pyrrhotite, Partly leached | est. 6% Zn, 4.5-5.5 9527 | 1.0 | |
| 5.5-6.5 | Mineralized calc silicate | est. 2% Zn, 5.5-6.5 9528 | 1.0 | |
| 6.5-8.5 | Pegmatite - schistose sections | est. NIL 6.5-8.5 9529 | 2.0 | |
| 8.5-10.0 | Mineralized Quartzite, Fine sphalerite and pyrrhotite, trace galena, core angle 70° | est. 10% Zn 8.5-10.0 9530 | 1.5 | |
| 10.0-10.5 | Mineralized Pegmatite with sphalerite and galena | est. 1% Pb-Zn, 10.0-10.5 9531 | 0.5 | |
| 10.5-15.0 | Pegmatite - staining from 12.5 | est. NIL, 10.5-15.0 9532 | 4.5 | |
| 15.0-17.0 | Mineralized Calc-silicate with sphalerite and pyrrhotite, core angle 45° | est. 4% Zn 15.0-17.0 9533 | 2.0 | |
| 17.0-19.0 | Fine grained dark rock (chert) fine laminae, 3" of coarse sphalerite at start, some of the fine laminae are sphalerite and pyrrhotite - mylonite | est. 6% Zn 17.0-19.0 9534 | 2.0 | |
| 19.0-22.0 | Pegmatite with high silica possible hybrid of Pegmatite and Quartzite, slightly mineralized | est. 1% Zn 19.0-22.0 9535 | 3.0 | |
| 22.0-27.0 | Quartzite - mostly ground (6" recovered) | 22.0-27.0 9536 | 5.0 | |
| 27.0-34.0 | Pegmatite with Muscovite, Biotite | est. NIL 27.0-34.0 9537 | 7.0 | |
| 34.0-38.0 | Siliceous, possibly Calc-silicate, mostly Hornblende and Quartz with minor mineralization, Sphalerite and Pyrrhotite | est. 1% Zn 34.0-35.5 9538 | 1.5 | |
| | | est. Tr Zn 35.5-38.0 9539 | 2.5 | |
| 38.0-42.0 | Pegmatite | | | |

Ben Nichols

Scale

Colour Plot
& Dip

Drill Hole Record



Property RUGDOCK CREEK

District _____

Hole No. UG-77-3

Commenced _____

Location _____

Tests at _____

Hor. Comp. _____

Completed _____

Core Size X-Ray

Corr. Dip _____

Vert. Comp. _____

Co-ordinates 23.487.7N 23.218.6E

True Brg. _____

Logged by _____

Objective _____

% Recov. _____

Date _____

Claim

T Brg.

Collar Dip

Elev.

Length

Footage

From To

Description

Sample No.

Length

Analysis

42.0-73.5

Pegmatite with Quartz Biotite Gneiss sections or fine grained biotite rich Pegmatite, a few thin schistose sections

73.5-78.5

Calc Silicate with Quartz Biotite Gneiss. 74.0-75.0

8.5-93.0

Pegmatite - Grey coarse grained Quartz and Feldspar, some Muscovite and Biotite

Ben Nichols

Scale

Colour Plot
& Dip

Drill Hole Record



| | | | |
|---------------------------------------|-----------------------|------------------|---------------|
| Property RUDDOCK CREEK | District | Hole No. UG-77-4 | |
| Commenced JULY 8, 1977 | Location UPPER G ZONE | Tests at | Hor. Comp. |
| Completed JULY 9, 1977 | Core Size X-RAY (RWT) | Corr. Dip -90° | Vert. Comp. |
| Co-ordinates 23,432.38 N, 23,113.73 E | | True Brg. | Logged by NEW |
| Objective | | % Recov. | Date |

Claim IT #4

T Brg.

Collar Dip - 90°

Elev.

7736.03

Length

98'

| Footage | | Description | Sample No. | Length | Analysis |
|---------|------|---|------------|--------|----------|
| From | To | | | | |
| 0 | 2.0 | CASING | | | |
| 2.0 | 7.0 | Quartz biotite gneiss, garnets, schistose, core angle variable, 10 to 45°. | | | |
| 7.0 | 14.0 | Pegmatite, mostly coarse; finer, 10 to 11.5; quartz seam, 7.5 to 8. | | | |
| 14.0 | 16.5 | Well mineralized to near solid sulphide. Calcareous-siliceous host, medium-grained black sphalerite to 16.0', the fine-grained reddish variety. | | | |
| | | Estimated Zn, 25%, 14.0 to 16.5'. | 9540 | 2.5 | |
| 16.5 | 19.0 | Pegmatite, foliation at 17' of 45°; 2" of sphalerite at 17.5'. | | | |
| | | Estimated Zn, trace, 16.5 to 17.5'. | 9541 | 1.0 | |
| | | , 20%, 17.5 to 18.0'. | 9542 | 0.5 | |
| | | , nil, 18.0 to 19.0'. | 9543 | 1.0 | |
| 19.0 | 22.0 | Mineralized calcareous-silicate minor pyrr.; good sphalerite, 20.0 to 20.5'. | | | |
| | | Estimated Zn, 20%, 19.0 to 20.0'. | 9544 | 1.0 | |
| | | 10%, 20.0 to 21.0'. | 9544 | 1.0 | |
| | | 2%, 21.0 to 22.0'. | 9545 | 1.0 | |

Don McNeil

Drill Hole Record



| | | | |
|--------------|-----------|------------------|-------------|
| Property | District | Hole No. UC-77-4 | |
| Commenced | Location | Tests at | Hor. Comp. |
| Completed | Core Size | Corr. Dip | Vert. Comp. |
| Co-ordinates | | True Brg. | Logged by |
| Objective | | % Recov. | Date |

| Footage From | To | Description | Sample No. | Length | Analysis | | | | |
|-----------------|------|---|---------------|--------|----------|--------|------------|-------|--------|
| | | | | | Claim | T Brg. | Collar Dip | Elev. | Length |
| 22.0 | 40.0 | Pegmatite, gray, fine and coarse sections. Fine is granitic with biotite, coarse pegmatite sections 24.5 to 25.0', 32.0 to 39.0'. Gneissic section, 23.5 to 24.5'. 1/2" sphalerite at 38.0'. Estimated Zn, trace, 22.0 to 24.5'. nil, 24.5 to 35.0'. trace, 35.0 to 40.0'. | 9547 | 2.5 | | | | | |
| | | | 9548 | 10.5 | | | | | |
| | | | 9549 | 5.0 | | | | | |
| 40.0 | 40.5 | Mineralized calcareous-silicate minor sphalerite. Estimated Zn, 5%, 40.0 to 40.5'. | 9550 | 0.5 | | | | | |
| 40.5 | 43.5 | Pegmatite, coarse Estimated Zn, nil, 40.5 to 43.5'. | 71151 | 3.0 | | | | | |
| 43.5 | 49.0 | Slightly mineralized calcareous-silicate and quartzite, gneiss, minor pyr., galena and sphalerite. Core angle 70' at 46.0'. Estimated Zn, 3%, 43.5 to 45.0'. 1%, 45.0 to 46.5'. 2%, 46.5 to 49.0'. | 71152 | 1.5 | | | | | |
| | | | 71153 | 1.5 | | | | | |
| | | | 71154 | 2.5 | | | | | |
| 49.0 | 49.5 | Pegmatite, coarse Estimated Zn, trace | 71155 | 0.5 | | | | | |
| 49.5 | 64.5 | Slightly mineralized, mixed calcareous-silicate, quartzite and fine pegmatite. Pegmatite from 51.5 to 52.5', 54 to 55', 58 to 60'. Core angle at 60' is 60'. | | | | | | | |

Ben M. Wells

Scale

Colour Plot
& Dip

Drill Hole Record



| | | | |
|--------------|-----------|-----------|-------------|
| Property | District | Hole No. | UC-77-4 |
| Commenced | Location | Tests at | Hor. Comp. |
| Completed | Core Size | Corr. Dip | Vert. Comp. |
| Co-ordinates | | True Brg. | Logged by |
| Objective | | % Recov. | Date |

| Footage | | Description | Sample No. | Length | Analysis | Claim | T Brg. | Collar Dip | Elev. | Length | Hole No. |
|---------|------|--|------------|--------|----------|-------|--------|------------|-------|--------|----------|
| From | To | | | | | | | | | | |
| 49.5 | 64.5 | Estimated Zn, 2%, 49.5 to 54.0'. | 71156 | 4.5 | | | | | | | |
| con't. | | nil, 54.0 to 55.0'. | 71157 | 1.0 | | | | | | | |
| | | 3%, 55.0 to 58.0'. | 71158 | 3.0 | | | | | | | |
| | | 1.5%, 58.0 to 60.0'. | 71159 | 2.0 | | | | | | | |
| | | 5%, 60.0 to 64.5'. (3' lost core) | 71160 | 4.5 | | | | | | | |
| 64.5 | 82.0 | Pegmatite, gray, biotite, occasional garnet, 2" of sphalerite at 71.5' in 6" quartzite band. | | | | | | | | | |
| | | Estimated Zn, nil, 64.5 to 71.5'. | 71161 | 7.0 | | | | | | | |
| | | 15%, 71.5 to 72.0'. | 71162 | 0.5 | | | | | | | |
| | | nil, 72.0 to 82.0'. | 71163 | 10.0 | | | | | | | |
| 82.0 | 85.0 | Calcareous-silicate and quartzite; banded sphalerite at 83.0', with cherty quartz and minor pyrite. | | | | | | | | | |
| | | Estimated Zn, less than 1%. | 71164 | 3.0 | | | | | | | |
| 85.0 | 88.5 | Granite with quartz and biotite Estimated Zn, nil | 71165 | 3.5 | | | | | | | |
| 88.5 | 91.5 | Near solid sulphide, some calcareous-silicate, minor pyrr.; mostly medium grade sphalerite; core angle, 70 to 90'. | | | | | | | | | |
| | | Estimated Zn, 15% | 71166 | 3.0 | | | | | | | |

Ron Nichols

Scale

Colour Print
& Dps

Drill Hole Record



Property RUDDOCK CREEK District _____ Hole No. UC-77-5
 Commenced JULY 9, 1977 Location UPPER G Tests at _____ Hor. Comp. _____
 Completed JULY 10, 1977 Core Size X-RAY (RWT) Corr. Dip -90° Vert. Comp. _____
 Co-ordinates 23,376.73 N, 23,065.81 E True Brg. _____ Logged by MEW
 Objective _____ % Recov. _____ Date JULY 31, 1977

Claim
IT #4

T Brg.

Collar Dip - 90°

Elev.

7693.41

Length

10 1/2

Hole No.

Sheet

| Footage From | To | Description | Sample No. | Length | Analysis |
|-----------------|------|--|---------------|--------|----------|
| 0 | 1.0 | CASING | | | |
| 1.0 | 6.0 | Quartzite, whitish, slightly mineralized. Estimated Zn, 2%, 5.5 to 6.0'. | 71168 | 0.5 | |
| 6.0 | 7.0 | Calcareous - silicate, no sulphides. Estimated Zn, nil | 71169 | 1.0 | |
| 7.0 | 7.5 | Mineralized quartzite, galena and sphalerite. Estimated Zn, less than 1% | 71170 | 0.5 | |
| 7.5 | 9.0 | Pegmatite, gray, rust stain, metamorphosed sphalerite. Estimated Zn, 1% | 71171 | 1.5 | |
| 9.0 | 11.0 | Mineralized calcareous-silicate, some quartzite sections. Patch of NSS, 9.5 to 10.5'. Estimated Zn, 10% | 71172 | 2.0 | |
| 11.0 | 14.5 | Quartzite to quartz biotite gneiss. Cneissocity, approximately 40%. Estimated Zn, nil | 71173 | 3.5 | |
| 14.5 | 16.0 | Mineralized calc-silicate, lots of red garnet. Estimated Zn, 8% | 71174 | 1.5 | |
| 16.0 | 17.5 | Quartzite plus occasional calc-silicate minerals (diopside?). Estimated Zn, nil | 71175 | 1.5 | |
| 17.5 | 22.0 | Mineralized calc-silicate, good garnets and diopside. Estimated Zn, 7% | 71176 | 4.5 | |

Don Mitchell

Drill Hole Record



| | | | |
|--------------|-----------|------------------|-------------|
| Property | District | Hole No. UG-77-5 | |
| Commenced | Location | Tests at | Hor. Comp. |
| Completed | Core Size | Corr. Dip | Vert. Comp. |
| Co-ordinates | | True Brg. | Logged by |
| Objective | | % Recov. | Date |

Claim

T Brg.

Collar Dip

Elev.

Length

| Footage From | To | Description | Sample No. | Length | Analysis |
|-----------------|------|---|---------------|--------|----------|
| 22.0 | 26.0 | Pegmatite, coarse. Estimated Zn, nil | 71177 | 4.0 | |
| 26.0 | 28.5 | Mineralized calc-silicate, minor pyrrhotite and sphalerite; becomes gneissic toward base. Estimated Zn/Pb, 1% | 71178 | 2.5 | |
| 28.5 | 45.5 | Quartz biotite granite (gneiss), fine-grained, gray, weak gneissosity. A few 2 to 4" coarse pegmatite bands. Estimated Zn, nil | 71179 | 3.0 | |
| 45.5 | 46.5 | Mineralized quartzite. Estimated Zn, 7% | 71180 | 1.0 | |
| 46.5 | 53.5 | Pegmatite, medium-grained, gray, biotite, staining from 52'. | | | |
| 53.5 | 55.0 | Quartz biotite gneiss grading to calc-silicate (limey). Gneissosity at 50'. | | | |
| 55.0 | 58.0 | Pegmatite, gray, coarse | | | |
| 58.0 | 61.5 | Limey calc-silicate, marble 58 to 59'. | | | |
| 61.5 | 66.0 | Quartz biotite gneiss, slightly schistose. Core angle, 50'. | | | |
| 66.0 | 70.5 | Calc-silicate; marble, 67.5 to 69.0'. | | | |

Ben Nichols

Drill Hole Record



| | | | |
|--------------|-----------|------------------|-------------|
| Property | District | Hole No. UG-77-5 | |
| Commenced | Location | Tests at | Hor. Comp. |
| Completed | Core Size | Corr. Dip | Vert. Comp. |
| Co-ordinates | | True Brg. | Logged by |
| Objective | | % Recov. | Date |

| Footage | | Description | Sample No. | Length | Analysis | | | | | |
|---------|------|---|------------|--------|----------|--------|------------|-------|--------|--|
| From | To | | | | Claim | T Brg. | Collar Dip | Elev. | Length | |
| 70.5 | 72.0 | Pegmatite, medium to coarse-grained, gray with biotite | | | | | | | | |
| 72.0 | 73.5 | Quartz biotite gneiss grading to quartzite. | | | | | | | | |
| 73.5 | 74.5 | Quartzite, minor pyrrhotite, fluorite at base (clear and purple, thin stringers). Est. Zn, tr. | 71181 | 1.0 | | | | | | |
| 74.5 | 94.5 | Well mineralized quartzite, quartz as blebs 1/8 to 1", also laminated with sphalerite, thin fluorite bands at 77 to 77.5'. Sphalerite - yellow orange, red and black. Greenish calc-silicate sections 79 to 79.5', 82.5 to 83', 89.5 to 90'. Pegmatite sections, 90 to 91'. Possible laminated chert (?) mylonite 93 to 94'. Core angle 70' at 86'; variable 93 to 94'; 55' at 94'. | | | | | | | | |
| | | Estimated Zn, 15% , 74.5 to 76.0'. | 71182 | 1.5 | | | | | | |
| | | Zn/Pb, 2%; 76.0 to 77.0'. | 71183 | 1.0 | | | | | | |
| | | Minor Pb, Cu and Zn, 77.0 to 79.5'. | 71184 | 2.5 | | | | | | |
| | | Estimated Zn, 10%, 79.5 to 81.5'. | 71185 | 2.0 | | | | | | |
| | | less than 1%, 81.5 to 83.0'. | 71186 | 1.5 | | | | | | |
| | | 7%, 83.2 to 87.5'. | 71187 | 4.5 | | | | | | |
| | | less than 1%, 87.5 to 89.0'. | 71188 | 1.5 | | | | | | |
| | | 10%, 89.0 to 90.0'. | 71189 | 1.0 | | | | | | |
| | | nil, 90.0 to 91.0'. | 71190 | 1.0 | | | | | | |
| | | 14%, 91.0 to 94.5'. | 71191 | 3.5 | | | | | | |

Don Mikels

Scale

Colour Print
& D-ps

Drill Hole Record



| | | | | |
|--------------|--------------------------|-----------|-----------|---------------------|
| Property | RUDDOCK CREEK | District | Hole No. | UG-77-6 |
| Commenced | JULY 11, 1977 | Location | Tests at | Hor. Comp. |
| Completed | JULY 14, 1977 | Core Size | Corr. Dip | -90° Vert. Comp. |
| Co-ordinates | 23,336.94 N, 23,036.89 E | True Brg. | Logged by | WEW |
| Objective | | % Recov. | Date | JULY 14, 1977 |

| Footage | | Description | Sample No. | Length | Analysis |
|---------|------|--|------------------------------|--------|----------|
| From | To | | | | |
| 0 | 6.0 | CASING partly cored. Part may be boulders. 0 to 5' - pegmatite; 5 to 5.5' - NSS; 5.5 to 6' - rusty broken core. | | | |
| | | | Estimated Zn, 25%, 5 to 5.5' | 71194 | 0.5 |
| | | | nil, 5.5 to 6' | 71195 | 0.5 |
| 6.0 | 7.0 | Mineralized quartz biotite schist, quartz augen, minor pyrrhotite. | Estimated Zn, 5% | 71196 | 1.0 |
| 7.0 | 8.5 | Mineralized calc-silicate, garnets. | Estimated Zn, 1% | 71197 | 1.5 |
| 8.5 | 12.5 | Well mineralized quartzite sections of near solid sulphide (sphalerite and trace galena). Core angle, 45°. | Estimated Zn, nil, 8.5 to 9' | 71198 | 0.5 |
| | | | 25%, 9 to 9.5' | 71199 | 0.5 |
| | | | tr, 9.5 to 11' | 71200 | 1.5 |
| | | | Pb/Zn, 15%, 11 to 12.5' | 71301 | 1.5 |
| 12.5 | 20.5 | Pegmatite, coarse to 16.5, then medium-grained with biotite and somewhat foliated. | Estimated Zn, nil | 71302 | 8.0 |
| 20.5 | 22.5 | Well mineralized quartzite to near solid sulphide; minor Pb, mostly sphalerite. Estimated Zn/Pb, 23%, 20.5 to 22.5'. | | 71303 | 2.0 |

Claim IT #4
T Brg.
Collar Dip -90°
Elev. 770.54
Length 120'
Hole No.

Ren Nichols

Scale

Colour Plot
& Dip

Drill Hole Record



| Property | | District | Hole No: G-77-6 | | Claim | T Brg. | Collar Dip | Elev. | Length |
|--------------|------|--|-----------------|-----------|-------------|--------|------------|-------|--------|
| Commenced | | Location | Tests at | | Hor. Comp. | | | | |
| Completed | | Core Size | Corr. Dip | | Vert. Comp. | | | | |
| Co-ordinates | | True Brg. | | Logged by | | | | | |
| Objective | | % Recov. | | Date | | | | | |
| Footage | | Description | Sample No. | Length | Analysis | | | | |
| From | To | | | | | | | | |
| 22.5 | 36.0 | Mineralized calc-silicate with thin (1") marble layers. NSS band, 35 to 36'. Good galena, 30 to 36', but only 50% recovery. 3' of core lost between 26 and 34'. Estimated Zn, less than 1%, 22.5 to 27.5'. Pb/Zn, 2%, 27.5 to 30.0'. Pb, 3%, 30.0 to 33.0'. Pb/Zn, 18%, 33.0 to 36.0'. | 71304 | 5.0 | | | | | |
| | | | 71305 | 2.5 | | | | | |
| | | | 71306 | 3.0 | | | | | |
| | | | 71307 | 3.0 | | | | | |
| 36.0 | 57.5 | Pegmatite, medium-grained with biotite, somewhat granitic, faint foliation. Minor muscovite and garnet and chlorite. Barren. | 71308 | 2.0 | | | | | |
| 57.5 | 77.0 | Quartz biotite gneiss, some muscovite, schistose in part pegmatite from 66.5 to 69.0', 73.5 to 74.5'. Gneissosity, approximately 45'. | | | | | | | |
| 77.0 | 80.5 | Pegmatite, coarse, partly rust stained. Estimated Zn, 3%, 81.5 to 83.5'. | 71309 | 2.0 | | | | | |
| 83.5 | 86.0 | Pegmatite, coarse, occasional inch of greenish calc-silicate mineral. Estimated Zn, trace | 71310 | 2.5 | | | | | |

Don Nichols 211

Scale

Colour
& Dip

Drill Hole Record



| | | | |
|--------------|-----------|-----------|-------------|
| Property | District | Hole No. | |
| Commenced | Location | Tests at | Hor. Comp. |
| Completed | Core Size | Corr. Dip | Vert. Comp. |
| Co-ordinates | | True Brg. | Logged by |
| Objective | | % Recov. | Date |

Claim

T Brg.

Collar Dip

Elev.

Length

| Footage From | To | Description | Sample No. | Length | Analysis |
|-----------------|-------|---|---------------|--------|----------|
| 86.0 | 96.5 | Slightly mineralized calc-silicate rock, quartzite section. Pyrrhotite in fractures, NSS sphalerite 94.5 to 95.0' is fine-grained, reddish and partly laminated. Section 94.5 to 95 is closest to marker in this hole but very questionable. - possibly mylonitic Estimated Zn, less than 1%, 86 to 89'. 9%, 89 to 90'. less than 1%, 90 to 94.5'. 20%, 94.5 to 95'. trace, 95.0 to 97.0'. | 71311 | 3.0 | |
| | | | 71312 | 1.0 | |
| | | | 71313 | 4.5 | |
| | | | 71314 | 0.5 | |
| | | | 71315 | 2.0 | |
| 96.5 | 98.5 | Pegmatite, coarse, gray, 3" of Quartz biotite gneiss at start. Barren. | 71316 | 2.0 | |
| 98.5 | 100.0 | Quartz biotite gneiss. Core angle, 80°. | | | |
| 100.0 | 101.0 | Pegmatite, coarse, gray. | | | |
| 101.0 | 102.0 | Quartzite (bluish) and calc-silicate rock. | | | |
| 102.0 | 110.0 | Quartz biotite granite gneiss becomes medium-grained at 105'. | | | |
| 110.0 | 120.0 | Pegmatite, coarse, gray, occasional muscovite and trace pyrites at 114'. | | | |
| | | End of hole | | | |

Ron Michals 211-01

Drill Hole Record



Property RLDDOCK CREEK District _____ Hole No. UG-77-7
 Commenced JULY 14, 1977 Location UPPER C Tests at _____ Hor. Comp. _____
 Completed JULY 15, 1977 Core Size X-RAY Corr. Dip -90° Vert. Comp. _____
 Co-ordinates 23,291.33N; 23,004.55E True Brg. _____ Logged by WFW
 Objective _____ % Recov. _____ Date JULY 15, 1977

Claim

IT #4

T Brg.

Collar Dip

- 90°

Elev. 7336.47

Length

120'

Hole No.

Sheet

| Footage From To | Description | Sample No. | Length | Analysis |
|--------------------|---|----------------------------------|--------------------------|----------|
| 0 2.0 | CAS | | | |
| 2.0 6.0 | Mineralized calc-silicate rock, oxidized and leached, 5.2 to 6.0'. Estimated Zn, 4%, 2 to 6'. | 71317 | 4.0 | |
| 6.0 12.0 | Pegmatite, coarse grained, rust stain, only 2' recovered. Estimated Zn, nil | 71318 | 6.0 | |
| 12.0 29.0 | Well mineralized quartzite with abundant fluorite (15%), sphalerite and pyrrhotite 17 to 20.5'. Minor chalcopyrite, 23 to 29'. Core angle, 50' at 22', 30' at 28.5'. Estimated Zn, 5%, 12 to 16'. 5%, 16 to 20.5'. 2%, 20.5 to 25.0'. 2%, 25.0 to 29.0'. | 71319 71320 71322 71322 | 4.0 4.5 4.5 4.0 | |
| 29.0 30.0 | Marble and sphalerite (black). Estimated 6%, 29.0 to 30.0'. | 71323 | 1.0 | |
| 30.0 31.0 | Marble with burnblende. Estimated nil | 71324 | 1.0 | |
| 31.0 69.5 | Granite - medium-grained, same calc-silicate minerals to 32.5', possible quartzite 34 to 36'. Gneissic section with gneissocity, approximately 45'. Pegmatite sections from 1" to 2' including 43 to 44.5'. Mineralized with Zn, Pb, Fluorite 39.5 to 40.0'. Estimated 5% Zn (not sampled. Estimated Zn, nil, 31.0 to 32.5'. | 71325 | 1.5 | |

Ren Nichols

Scale

Co-ordinates
& Dip

Drill Hole Record



| | | |
|--------------|-----------|------------------|
| Property | District | Hole No. UC-77-7 |
| Commenced | Location | Tests at |
| Completed | Core Size | Corr. Dip |
| Co-ordinates | True Brg. | Logged by |
| Objective | % Recov. | Date |

| Footage | | Description | Sample No. | Length | Analysis |
|---------|-------|--|----------------|------------|----------|
| From | To | | | | |
| 69.5 | 77.5 | Quartz biotite gneiss, minor garnet schistose sections. Gneissosity at 60°. | | | |
| 77.5 | 79.5 | Pegmatite, gray, coarse, minor muscovite. | | | |
| 79.5 | 87.5 | Quartz biotite gneiss. Core angle, 60°. | | | |
| 87.5 | 88.0 | Pegmatite, white, minor quartz. | | | |
| 88.0 | 88.5 | Hornblendite. | | | |
| 88.5 | 90.5 | Quartz biotite gneiss. | | | |
| 90.5 | 96.5 | Quartzite, shattered with a dark filling some of which is pyrrhotite. Marker?? 94 to 96.5', fine sphalerite, contoured laminae with dark quartz (chert). Estimated 10%, 92.5 to 93.0'. Nylonite section 4%, 94.0 to 96.5'. | 71326 71327 | 0.5 2.5 | |
| 96.5 | 100.0 | Quartz biotite gneiss | | | |
| 100.0 | 114.0 | Pegmatite, coarse, gray. | | | |

Claim

T Brg.

Collar Dip

Elev.

Length

Hole No. Sheet

Ben Nichols

Scale

Colour Log
& Dips

Drill Hole Record



| | | | | | |
|--------------|------------------------|-----------|--------------|-----------|--------------------|
| Property | RUDDOCK CREED | District | | Hole No. | UG-77-8 |
| Commenced | JULY 16, 1977 | Location | UPPER G ZONE | Tests at | Hor. Comp. |
| Completed | JULY 17, 1977 | Core Size | X-RAY | Corr. Dip | -90° |
| Co-ordinates | 23,238.19N; 23,011.07E | | | True Brg. | Logged by WEW |
| Objective | | | | % Recov. | Date JULY 17, 1977 |

Claim
IT #4

T Brg.

Collar Dip
-90°

Elev.

7601.81

Length
101.5'

Hole No.

Sheet

| Footage From | To | Description | Sample No. | Length | Analysis | |
|-----------------|------|---|---------------|--------|----------|-----|
| | | | | | Pb | Zn |
| 0 | 9.0 | Casing | | | | |
| 9.0 | 12.0 | Quartz biotite gneiss, minor small garnet, minor muscovite. Core angle, about 60°. | | | | |
| 12.0 | 36.5 | Quartz biotite granite with coarse pegmatite at 17.5 to 18.5'; 26.5 to 27.0'; 31.5 to 32.0'. | | | | |
| 36.5 | 47.5 | Calc-silicate rock with diopside and garnet, possible minor sphene 44 to 45'; limey pegmatite sections 37.5 to 38'; 39.0 to 40.0'; 41.5 to 42'. | | | | |
| 47.5 | 53.5 | Quartz biotite gneiss, slightly schistose. Core angle, about 60°. | | | | |
| 53.5 | 54.5 | Pegmatite, coarse gray. | | | | |
| 54.5 | 56.0 | Calc-silicate rock with diopside garnet and biotite, grades to quartz biotite gneiss. | | | | |
| 56.0 | 60.5 | Quartz biotite gneiss, pegmatite 58 to 58.5'. | | | | |
| 60.5 | 66.0 | Calc-silicate rock with quartzite layer 61 to 61.5'; fluorite at 64.5'. | | | | |
| 66.0 | 67.0 | 1.5" of pyrrhotite followed by dark quartzite with lighter quartzite blebs (possible augen?). Mineralized with sphalerite. Estimated 6% Zn, 66 to 67'. | 71329 | 1.0 | .61 | 5.2 |

Ben Nichols

Scale

To Cor Plot
& Dips

Drill Hole Record



| Property | | District | Hole No. UG-77-8 | | Claim | T Brg. | Collar Dip | Elev. | Length | Hole No. |
|--------------|-------|--|------------------|-----------|-------------|--------|------------|-------|--------|----------|
| Commenced | | Location | Tests at | | Hor. Comp. | | | | | |
| Completed | | Core Size | Corr. Dip | | Vert. Comp. | | | | | |
| Co-ordinates | | True Brg. | | Logged by | | | | | | |
| Objective | | % Recov. | | Date | | | | | | |
| Footage From | To | Description | Sample No. | Length | Analysis | | | | | |
| 67.0 | 71.5 | Quartzite, gray, banded appearance at 60°. May be a mylonite. Est. nil, 67 to 71.5'. | 71330 | 4.5 | .02 | .08 | | | | |
| 71.5 | 74.0 | Mineralized quartzite or chert, dark, fine laminated, may be marker, 2" sphalerite at start, then thin 1/16" layers. Estimated 12% Zn. | 71331 | 2.5 | .22 | 2.07 | | | | |
| 74.0 | 75.0 | Quartzite, gray, (as 67 to 71.5'). Est. nil. | 71332 | 1.0 | .02 | .48 | | | | |
| 75.0 | 76.0 | Quartzite and calc-silicate, garnet and pyroxene. Estimated trace Zn. | 71333 | 1.0 | .05 | 3.2 | | | | |
| 76.0 | 86.0 | Pegmatite, gray, coarse, with quartz biotite gneiss 85 to 86; and schistose section, 79.5 to 79.7'. | | | | | | | | |
| 86.0 | 88.0 | Calc-silicate rock. | | | | | | | | |
| 88.0 | 91.0 | Pegmatite, gray, coarse. | | | | | | | | |
| 91.0 | 101.5 | Calc-silicate mixed with quartzite and pegmatite. Core angle, 80°. | | | | | | | | |
| | | End of hole | | | | | | | | |

Ben M. Smith 211

Drill Hole Record



Property Ruddock Creek District Kamloops M.D. Hole No. UG-77-9
 Commenced July 25, 1977 Location Tests at Hor. Comp.
 Completed July 29, 1977 Core Size BQ Corr. Dip Vert. Comp.
 Co-ordinates 23,396.88; 22,805.05 True Brg. Logged by WEM
 Objective % Recov. Date

Claim IT #4

T Brg.

Collar Dip -90°

Elev.

7704.91

Length

408'

Hole No. UG-77-9 Sheet

| Footage From | To | Description | Sample No. | Length | Analysis |
|--------------|------|--|---------------------------|--------|----------|
| 0 | 6 | Casing | | | |
| 6 | 12 | pegmatite; medium to very coarse (2") crystals | | | |
| 12 | 18 | Mineralized calc-silicate gneiss - limey in places siliceous in others (1' quartzite ? 15-16), garnets - 16.5 to 17.0' - mostly scattered Zns, possible small amount Pb | | | |
| | | | 12'-17.5': est 1% Zn | 71398 | 5.5' |
| | | | NSS 17.5'-18': est 18% Zn | 71399 | 0.5' |
| 18 | 20 | Pegmatite; rust stained | | 71400 | 1' |
| 20 | 21 | NSS est 25% Zn - black coarse crystalline sphalerite | | | |
| | | | 20-21 : est 25% | 39851 | 1' |
| 21 | 24.5 | slightly mineralized pegmatite with 3" quartzite bands, sulfides occur in both, core < 50% | | 39852 | 3.5' |
| 24.5 | 25.5 | mineralized calc-silicate, est 2% Zn | | 39853 | 1' |
| 25.5 | 28.5 | Quartzite, some thin pegmatite bands, very lightly mineralized | | | |
| | | | est trace | 39854 | 3.0' |
| 28.5 | 30 | Calc-silicate, very siliceous with garnet and green mineral (diopside?) | | | |
| | | | est trace | 39855 | 1.5' |
| 30 | 34 | Coarse pegmatite, py in fracture at 33' angle of fracture 30° | | | |
| | | | | 39856 | 4.0' |
| 34 | 28.5 | Well mineralized to N.S.S Quartzite | | | |

Don Nichols 21-54

Drill Hole Record



| | | | | | |
|--------------|-----------|------------------|-------------|------------|----------|
| Property | District | Hole No. UG-77-9 | | | |
| Commenced | Location | Tests at | Hor. Comp. | | |
| Completed | Core Size | Corr. Dip | Vert. Comp. | | |
| Co-ordinates | | True Brg. | Logged by | | |
| Objective | | % Recov. | Date | Claim | T Brg. |
| | | | | Collar Dip | Elev. |
| | | | | Length | Hole No. |
| | | | | | Sheet |

| Footage From To | Description | Sample No. | Length | Analysis |
|--------------------|--|---------------|--------|----------|
| | 6" of calc-silicate gneiss, mostly garnet at start and at 27.5'. Biotite with Zns 38.0' to 38.5' | | | |
| | est 18% Zn, 2% Pb | | | |
| | est 5 to 10% pyrr. | 39857 | 4.5' | |
| 38.5 - 156.5 | Pegmatite coarse to very coarse, almost graphic granite in places; muscovite, minor biotite and occasional specs of pyrite. | | | |
| 156.5 - 157 | Quartz biotite gneiss | | | |
| 157 - 219 | Mostly coarse pegmatite with medium grained, biotite rich sections. Coarse grained material occasionally rust (orange) stained. | | | |
| | 212-213 biotite rich section | | | |
| | 218' section of quartz-biotite and muscovite gneiss with biotite partly altered to sericite chlorite. | | | |
| 219 - 270 | Quartz biotite gneiss (with muscovite) core angle 40° at 223' greenish mineral along fracture at 224', mineral cuts biotite foliations and is soft (talc?) | | | |
| | - pegmatite frequent 1/2 sections to 245, 245 to 248, 251.5 - 253, 253.5 to 258. | | | |
| | core angle 50° at 238', 45° at 248', 45° at 263' | | | |
| 270 - 273 | Mineralized quartz biotite gneiss, some thin bands of greenish calc-silicate mineral est 3.5% Zn. | 39858 | 3.0 | |
| 273 - 275.5 | Mineralized calc-silicate and pegmatite est 8% Zn-Pb | 39859 | 2.5 | |
| 275.5-277 | Quartzite, specs of Zns, slightly rusty est trace | 39860 | 1.5 | |

Ron Nichols

Drill Hole Record



| | | | |
|--------------|-----------|-----------|-------------|
| Property | District | Hole No. | UG-77-9 |
| Commenced | Location | Tests at | Hor. Comp. |
| Completed | Core Size | Corr. Dip | Vert. Comp. |
| Co-ordinates | | True Brg. | Logged by |
| Objective | | % Recov. | Date |

| Footage From | To | Description | Sample No. | Length | Analysis | Claim | T Brg. | Collar Dip | Elev. | Length | Hole No | Sheet |
|-----------------|-------|---|---------------|--------|----------|-------|--------|------------|-------|--------|---------|-------|
| 277 | 280 | Pegmatite, grey minor rusty stained to coarse at base; est trace | 39860 | 1.5 | | | | | | | | |
| 280 | 283 | Mineralized pegmatite or granite. Bright green mineral mixed in so it looks like a stained feldspar | 39861 | 3.0 | | | | | | | | |
| | | Some calc silicate and gneiss 280-281 | | | | | | | | | | |
| | | some biotite; min sph. and pyrrhotite est 6% Zn | 39862 | 3.0 | | | | | | | | |
| 283 | 289 | Mineralized calc silicate and quartzite; gneissic parts limy, some orange sphalerite, pyrrhotite | | | | | | | | | | |
| | | - a spec of bright green mineral | | | | | | | | | | |
| | | core angle 50° at 285' | 39863 | 6.0' | | | | | | | | |
| 289 | 293 | Pegmatite with granitic section - barren. | 39864 | 4.0' | | | | | | | | |
| 293 | 294.5 | Mineralized marble and calc-silicate bands (gradational to quartzite). sph. occurs over 8" to 10" of alternate marble and quartzite. est 5% Zn, | 39865 | 1.5' | | | | | | | | |
| 294.5 | 296.5 | Quartzite, slightly rust with limy sections 3" to 1/8" wide cutting core at 40° | 39866 | 2.0' | | | | | | | | |
| | | est nil | | | | | | | | | | |
| 296.5 | 298 | Pegmatite; slightly rusty stain | 39867 | 1.5' | | | | | | | | |
| 298 | 300 | Marble with considerable quartz grains 30%, minor biotite, pyrr. and sphene, some 1" -2" bands of green calc-silicate mineral. | 39868 | 2.0' | | | | | | | | |
| 300 | 302.5 | Well mineralized quartzite (?) | | | | | | | | | | |
| | | - limy in basal foot | | | | | | | | | | |
| | | - min: mostly black crystalline sphalerite with some pyrrhotite est 10% Zn | 39869 | 2.5' | | | | | | | | |
| 302.5 | 309.5 | Marble - crystalline with quartz grains - looks like a meta: limy sand- mica throughout. | | | | | | | | | | |

Ben Miskels

Scale

Colour Plot
& Dip.

Drill Hole Record



| | | | |
|--------------|-----------|-----------|-------------|
| Property | District | Hole No. | UG-77-9 |
| Commenced | Location | Tests at | Hor. Comp. |
| Completed | Core Size | Corr. Dip | Vert. Comp. |
| Co-ordinates | | True Brg. | Logged by |
| Objective | | % Recov. | Date |

| Footage From To | Description | Sample No. | Length | Analysis |
|--------------------|--|---------------|--------|----------|
| 347 - 357.5 | Pegmatite - med to coarse grained, muscovite, some green alteration in fractures | | | |
| | | 347 - 352 | 39888 | 5 |
| | | 352 - 357.5 | 39889 | 5.5 |
| 357.5-361.5 | Quartz biotite gneiss, core angle 70° | | 39890 | |
| 361.5 - 367 | Pegmatite, mixed with calc silicate | | | |
| | | 361.5-366 | 39891 | 4.5 |
| | | 366-367 | 39884 | 1 |
| 367 - 369 | Mineralized, est 10% Zn, thin laminations fine sphalerite, some small quartz blebs (augen), trace cpy. | | 39885 | 2.0 |
| 369 - 375 | Pegmatite, mostly quartz | | 39892 | 6.0 |
| 375 - 376 | Breccia (?) pegmatite | | 39893 | |
| 376 - 378 | mineralized quartzite (est 10% Zn) fine sph, quartz blebs, some fine laminae | | 39886 | 2.0 |
| 378 - 380 | Coarse grained pegmatite | | | |
| 380 - 382 | Quartz biotite gneiss with calc-silicate layers | | | |
| 382 - 386 | Coarse grained pegmatite | | | |
| 386-388.5 | Quartz biotite gneiss | | | |
| 388.5-389 | Coarse grained grey pegmatite | | | |
| 389-396 | Foliated quartz biotite gneiss mixed with greenish calc-silicate rock. | | | |
| 396-401 | c.g. grey pegmatite | | | |
| 401-408 | quartz biotite gneiss with muscovite; pegmatite intersections at 404.5, 406.5 | | | |

Claim

T Brg.

Collar Dip

Elev.

Length

Hole No. Sheet

Don Nichols 211-02

Drill Hole Record

| | | | | | |
|--------------|------------------------|-----------|---------------|---------------|-------------|
| Property | Ruddock Creek | District | Kamloops M.D. | Hole No. | UG-77-10 |
| Commenced | July 30, 1977 | Location | | Tests at | Hor. Comp. |
| Completed | August 3, 1977 | Core Size | BQ | Corr. Dip | Vert. Comp. |
| Co-ordinates | 23,569.23N; 22,839.02E | | True Brg. | Logged by WEW | |
| Objective | | | % Recov. | Date | |

Claim
IT #4

T Brg.

Collar Dip -90°

Elev. 7765.70

Length

| Footage From | To | Description | Sample No. | Length | Analysis |
|-----------------|-------------|---|----------------|--------|----------|
| 0 | 6 | Casing | | | |
| 6 | 7 | Quartz biotite gneiss; core angle 50°. | | | |
| 7 | 77 | Coarse grey pegmatite, minor mica | | | |
| 77 | 86.5 | Calc-silicate; garnet rich zone 78 to 80; partly gneissic with biotite, 80 to 80.5; peg. 83.5 to 85.0. | | | |
| 86.5 | 95 | Quartz biotite gneiss, rusty leached section 89 to 90. Core angle 50° at 93'. | | | |
| 95 | 102.5 | Quartz biotite granite and pegmatite | | | |
| 102.5 | 115 | Quartz biotite gneiss and pegmatite (about 50/50) Core angle 55° at 106' | | | |
| 115 | 225 | Grey quartz biotite granite and pegmatite, minor muscovite, faint gneissocity, mostly pegmatite (191 to 225). | | | |
| 225 | 273 | Quartz -biotite gneiss with pegmatite layers ½" to 2'. - often schistose, occasional garnet, mud at 239' (2") - quartz and feldspar augen from 241. | | | |
| | 248.5 - 249 | Quartz biotite gneiss, pyrrhotite est trace Zn | 39894 | 0.5 | |
| | 249 - 254.5 | Quartz biotite gneiss, pyrrhotite est trace Zn | 39895 | 5.5 | |
| | 254.5 - 256 | Quartz biotite gneiss, scattered sulfides (pyrr & sph est 1.5% Zn) | 39896 | 1.5 | |
| | 256 - 257.5 | Quartz biotite gneiss and pegmatite est nil. | 39897 | 1.5 | |
| | 257.5 - 260 | Quartz biotite gneiss est 5% Zn. | 39898 | 2.5 | |
| | 260 - 266 | Quartz biotite gneiss est trace 260-263 est trace 263-266 | 39899 39900 | | |
| | 266 - 268 | Quartz biotite gneiss with blue grey quartzite pyrrhotite est 5% est 4% Zn. | 39902 | | |

Ron Nichols

Drill Hole Record



| | | | |
|--------------|-----------|-----------|-------------|
| Property | District | Hole No. | UG-77-10 |
| Commenced | Location | Tests at | Hor. Comp. |
| Completed | Core Size | Corr. Dip | Vert. Comp. |
| Co-ordinates | | True Brg. | Logged by |
| Objective | | % Recov. | Date |

| Footage From | To | Description | Sample No. | Length | Analysis | Claim | T Brg. | Collar Dip | Elev. | Length | Hole No. | Sheet |
|-----------------|---------------|---|---------------|--------|----------|-------|--------|------------|-------|--------|----------|-------|
| | 268 - 270 | Pegmatite | est nil | 39903 | | | | | | | | |
| | 270 - 270.5 | Quartz biotite gneiss and pegmatite core angles - 50° at 240' - 40° at 250' - 50° at 265' | est 1.5% Zn | 39904 | | | | | | | | |
| | | core has contorted appearance, suspect a folded area, also possible faulting | | | | | | | | | | |
| | 273 - 297.5 | Coarse grey pegmatite with muscovite and biotite. | | | | | | | | | | |
| | 297.5 - 311 | Quartz biotite gneiss with some pegmatite, chlorite from 308' to 310' Core angle 80° | | | | | | | | | | |
| | 311 - 319 | Coarse grained pegmatite | | | | | | | | | | |
| | 319 - 323 | Calc-silicate; very siliceous, garnet, biotite and pale green mineral. | | | | | | | | | | |
| | 323 - 331 | Pegmatite; with minor sections of quartz biotite gneiss | | | | | | | | | | |
| | 331 - 336.5 | Quartz biotite calc-silicate gneiss with muscovite (core angle 60°) | | | | | | | | | | |
| | 336.5 - 349 | Pegmatite; grey with biotite and muscovite -intersects quartz bio, calc-silicate gneiss at 339.5, 341.0, and 344 to 345. | | | | | | | | | | |
| | 349 - 351.5 | Probable mylonite zone with laminated quartz and augen gneiss | | | | | | | | | | |
| | 351.5 - 361.0 | Diorite; Dark grey, heavy biotite and feldspar, faint gneissosity, with pegmatite from 358. | | | | | | | | | | |
| | 361 - 363.5 | Pegmatite | | | | | | | | | | |
| | 363.5 - 367.5 | Quartz biotite, calc silicate gneiss; pegmatite intersections | | | | | | | | | | |

Ron Nichols

Drill Hole Record



| | | |
|--------------|-----------|-------------------|
| Property | District | Hole No. UG-77-10 |
| Commenced | Location | Tests at |
| Completed | Core Size | Corr. Dip |
| Co-ordinates | | True Brg. |
| Objective | | % Recov. |
| | | Hor. Comp. |
| | | Vert. Comp. |
| | | Logged by |
| | | Date |

Claim
T Brg.
Collar Dip
Elev.
Length
Hole No.

| Footage From To | Description | Sample No. | Length | Analysis |
|--------------------|--|---------------|--------|----------|
| 367.5 - 380 | Pegmatite with biotite; a 3" quartz biotite gneiss intersection. | | | |
| 380 - 385 | Quartz biotite, calc-silicate gneiss. very siliceous, diopside, garnet possible minor sphene. Core angle 70° | | | |
| 385 - 408 | Pegmatite; greenish alteration concentrated about 393-395 - has faintly leached look in part - some staining, coarse grained, scattered muscovite - biotite in bottom foot. | | | |
| END | | | | |

Ben Nichols 21-81

Drill Hole Record



| | | | | | |
|--------------|----------------|-----------|----------------|-----------|-------------|
| Property | Ruddock Creek | District | Kamloops, M.D. | Hole No. | UG-77-11 |
| Commenced | August 4, 1977 | Location | | Tests at | 200' |
| Completed | August 8, 1977 | Core Size | BQ | Corr. Dip | |
| Co-ordinates | | True Brg. | | Logged by | WSP |
| Objective | | % Recov. | | Date | Aug. 8-9/77 |

Claim
IT #4

T Brg.

Collar Dip -90°

Elev.

7658.16

Length

433'

Hole No.

Sheet

UG-77-11

| Footage From To | Description | Sample No. | Length | Analysis |
|--------------------|---|----------------|----------|----------|
| 0 - 3' | Casing. | | | |
| 3'-11' | f.g. to mg. grey pegmatite with disseminated biotite throughout 9'-10' granitic texture. | | | |
| 11'-12' | quartz biotite gneiss | | | |
| 12'-19' | green calc-silicate gneiss (no garnets) contains 6" limestone at 15' | | | |
| 19'-26' | quartz biotite gneiss core angle 60° at 24' | | | |
| 26'-29.5 | c.g. pink pegmatite. | | | |
| 29.5-32 | quartz biotite gneiss (-at 32' is a 2" band of green tremolite) | | | |
| 32'-57.5' | c.g. grey pegmatite | | | |
| 57.5-60.5 | quartz biotite gneiss | | | |
| 60.5-63 | green calc-silicate gneiss with pink garnet and dissem. po. | | | |
| 63-67 | quartz biotite gneiss core angle: 70° with narrow ½" to 6" pegmatite intersections. | | | |
| 67-310 | c.g. grey pegmatite. Core is massive, relatively unbroken. | | | |
| 310-317 | rusty broken pegmatite; 6' recovered - blocky pieces | | | |
| 317-319 | marble with pegmatite sections | | | |
| 319-320 | 4" sulfide (sph) rich zone) est 4-5% Zn 8" pegmatite.) | 39905 39906 | 4" 8" | 4.0 |

Ben Richards

Drill Hole Record



| | | | |
|--------------|---------------|-----------|-------------------|
| Property | Ruddock Creek | District | Hole No. UG-77-11 |
| Commenced | Location | Tests at | Hor. Comp. |
| Completed | Core Size | Corr. Dip | Vert. Comp. |
| Co-ordinates | | True Brg. | Logged by |
| Objective | | % Recov. | Date |

| Footage | | Description | Sample No. | Length | Analysis | Claim | T Brg. | Collar Dip | Elev. | Length | Hole No. | Sheet |
|---------|---------------|--|------------|-----------|----------|-------|--------|------------|-------|--------|----------|-------|
| From | To | | | | | | | | | | | |
| 320 | 321.5 | Sulfide rich calc silicate (po and sph) est 8% Zn | 39907 | 1.5' | 12.0 | | | | | | | |
| 321.4 | 330 | green calc-silicate gneiss with sulfide rich sections. Contains layers purple fluorite. | | | | | | | | | | |
| | 321.5 - 322.5 | calc-silicate est < 1% | 39908 | 1' | .5 | | | | | | | |
| | 322.5 - 323.5 | sulfide rich est 3% | 39909 | 1' | 3.0 | | | | | | | |
| | 323.5-324.5 | calc-silicate est 1% | 39910 | 1' | 1.0 | | | | | | | |
| | 324.5 - 326 | est nil | 39911 | 1.5' | 0 | | | | | | | |
| | 326 - 327.5 | est 1% | 39912 | 1.5' | 1.5 | | | | | | | |
| | 327.5 - 300 | calc-silicate est < 1% | 39913 | 2.5' | 1.5 | | | | | | | |
| | | | | | 23.5 | | | | 2.1% | Zn | | |
| 330 | 341 | Quartz biotite gneiss with some greenish (sericite-chlorite) mica; narrow pegmatite bands, dissem. po. core angle 70° @ 336' | | | " | | | | | | | |
| 341 | 349 | Calc-silicate gneiss | | | | | | | | | | |
| | | 343-347 calcareous (marble?) section; possibly partly granitized? | | | | | | | | | | |
| | | 348.5-349 sphalerite rich section est 8% Zn. | 39915 | 0.5' | | | | | | | | |
| | | | | 347-348.5 | | | | | | | | |
| 349 | 357-5 | c.a. grey pegmatite | | | | | | | | | | |
| 357.5 | 371 | m.g. green - calc silicate gneiss (362.5 - 364 mylonitized) | | | | | | | | | | |
| | | 359-360 pegmatite | | | | | | | | | | |

Ben Nichols

Drill Hole Record



Property Ruddock Creek

District

Hole No. UG-77-11

Commenced

Location

Tests at

Hor. Comp.

Completed

Core Size

Corr. Dip

Vert. Comp.

Co-ordinates

True Brg.

Logged by

Objective

% Recov.

Date

Claim

T Brg.

Collar Dip

Elev.

Length

| Footage From To | Description | Sample No. | Length | Analysis |
|--------------------|---|---------------|--------|----------|
| | 360-362.5 | est 1% Zn | 39916 | 2.5 |
| | 362.5-363 N.S.S. sph & po with quartz "eyes" | est 15% Zn | 39917 | 0.5 |
| | 363-364 bands and disseminated sph. est 8-.0% Zn | | 39918 | 1.0 |
| | 364-365 calc-silicate gneiss | est 1% | 39919 | 1.0 |
| | 365-365.5 thin layers of sphalerite | est 3% Zn | 39920 | 0.5 |
| | 365.5-368 calc-silicate | est 1% | 39921 | 2.5 |
| | 368-371 tan colored calcareous calc-silicate | | | |
| 371-382 | quartz biotite gneiss with sericite - chlorite dissem. garnet core angle = 70° | | | |
| 382-393 | m.g. pegmatite, mostly grey equigranular. | | | |
| 393-399 | quartz biotite gneiss with garnets; some sericite. | | | |
| 399-403 | c.g. white pegmatite | | | |
| 403-417.5 | calc-silicate gneiss | | | |
| | 409-410 pegmatite | | | |
| | 413-414 pegmatite | 408 - 409 | | |
| | at 409' po. band with a 1/2" band sphalerite | est 1% | 39922 | 1.0' |
| 417.5-420 | quartz biotite gneiss | | | |
| 420-429.5 | med.-c.g. equigranular pegmatite | | | |
| 429.5-433 | quartz biotite gneiss with 6" pegmatite at 430' core angle 60° | | | |
| - 433 - | END OF HOLE | | | |

Ron Nichols

Drill Hole Record



Property Ruddock Creek District Kamloops M.D./821-15 Hole No. UG-7712
 Commenced August 9, 1977 Location 850' W Upper G Zone Tests at 300' and 650' Hor. Comp.
 Completed August 16, 1977 Core Size BQ Corr. Dip -86 and -82° Vert. Comp.
 Co-ordinates _____ True Brg. _____ Logged by R.F. Nichols
 Objective Test down plunge of fold thickened portion of % Recov. 93.7% Date August 14-16/77
Upper G Zone.

Claim
IT #4

T Brg.

Collar Dip
- 90°

Elev.

7711.28'

Length
658'

Hole No. Sheet

| Footage From To | Description | Sample No. | Length | Analysis |
|--------------------|--|---------------|--------|----------|
| 0 - 38 | Casing - glacial moraine, boulders, gravel | | | |
| 38 - 40 | Coarse grained pegmatite | | | |
| 40 - 44 | Alternating bands of calc-silicate and c.g. pegmatite calc silicate at 40-41 & 43-44 (narrow section with dissem. pyrrhotite) C-s bands @ 60 to C/A. | | | |
| 44 - 53½ | Coarse grained pegmatite, occasional finer grained more biotitic sections. | | | |
| 53½ - 59 | Calc silicate unit - medium to fine grained, limy diopside common, banded @ 60° to C/A - a few @ 50° | | | |
| | 56½-57 c.g. marble | | | |
| | 58½-59 equigranular biotite, quartz-feldspar | | | |
| 59-88 | Coarse grained pegmatite - distinctive quartz-feldspar intergrowths and muscovite. biotite gneiss remnants @ 65-66; 71-71½ and 79-80 contacts and foliation @ 60 to C/A. | | | |
| 88-90 | Feldspar-quartz-biotite gneiss, foliation @ 60° to C/A. | | | |
| 90-92 | Dense, dark green, actinolite rich rock contact @ 60° to C/A. | | | |
| 92-96 | Coarse grained pegmatite. | | | |
| 124-135 | fine grained, dark grey diorite several ½"-6" section of pegmatite @ 60-70° to C/A. | | | |
| 135-139 | Coarse grained pegmatite. | | | |
| 139-153 | Fine to medium grained grey diorite, c.g. peg at 144-147; 151-151½. | | | |

R.F. Nichols

Drill Hole Record



| | | | | |
|--------------|---------------|-----------|-----------|-------------|
| Property | Ruddock Creek | District | Hole No. | UG-77-12 |
| Commenced | | Location | Tests at | Hor. Comp. |
| Completed | | Core Size | Corr. Dip | Vert. Comp. |
| Co-ordinates | | | True Brg. | Logged by |
| Objective | | | % Recov. | Date |

Claim
T Brg.
Collar Dip
Elev.
Length

| Footage From To | Description | Sample No. | Length | Analysis |
|--------------------|---|---------------|--------|----------|
| 153- 175 | Coarse grained pegmatite. | | | |
| 175- 176½ | Calc- silicate - minor pegmatite with 3-6" of biotite on the pegmatite contacts - contact @ 60° to C/A | | | |
| 176½-181 | Coarse grained pegmatite | | | |
| 181 -183 | Actinolite rich calc silicate, minor disseminated pyrrhotite | | | |
| 183- 192 | Coarse grained pegmatite. | | | |
| 192-200 | Sections of near massive sphalerite, with quartz grains. The sulphides are in a calc silicate host, separated by pegmatite. | | | |
| | 192 -192 3/4 c.g. sphal, qtz and po. | 39923 | 0.75 | |
| | 192 3/4-193 3/4 pegmatite | 39924 | 1.0 | |
| | 193 3/4-194½ c.g. sphal, qtz. | 39925 | 0.5 | |
| | 194½ -195½ pegmatite | 39926 | 1.25 | |
| | 195½ -196 c.g. sphal, qtz. | 39927 | 0.5 | |
| | 196 -197½ pegmatite | 39928 | 1.5 | |
| | 197½ -198 c.g. sphal, qtz. | 39929 | 0.5 | |
| | 198 -199½ calc silicate - dissem. sphal. Po. | 39930 | 1.5 | |
| | 199½ -200 calc silicate and sphal bands | 39931 | 0.5 | |

Ron Nichols

Drill Hole Record



Property Ruddock Creek District _____ Hole No. UR-77-12
 Commenced _____ Location _____ Tests at _____ Hor. Comp. _____
 Completed _____ Core Size _____ Corr. Dip _____ Vert. Comp. _____
 Co-ordinates _____ True Brg. _____ Logged by _____
 Objective _____ % Recov. _____ Date _____

Claim

T Brg.

Collar Dip

Elev.

Length

Hole No. - 12 Sheet

| Footage From To | Description | Sample No. | Length | Analysis |
|--------------------|---|---------------|--------|----------|
| 200 - 354 | Typical coarse grained pegmatite, distinctive quartz feldspar intergrowths, medium grained locally. 203-203½ calc silicate band. | | | |
| 354 - 364 | Feldspar-quartz-biotitegneiss foliations @ 60° to C/A. Textures variable from gneissic to interlocking - "salt & pepper" | | | |
| 364 - 382 | Altered feldspar-biotite gneiss - feldspars moderately kaolinized, biotite mostly to chlorite, some sericite, foliation @ 60° to C/A. | | | |
| 382 - 392 | Very vuggy, highly altered (?) pegmatite, K-spar causes mottled pink-grey color; plagioclase moderately kaolinized, quartz present, but not as abundant as in typical pegmatite, sericite aggregates throughout. | | | |
| | 385-387 altered biotite gneiss, same as (364-382) | | | |
| 392 - 398 | altered feldspar biotite gneiss as above (364-382) | | | |
| 398 - 408 | mixed section of vuggy pegmatite and altered biotite gneiss - foliation @ 60° to C/A. | | | |
| 408 - 415 | weakly altered biotite gneiss - biotite to chlorite and sericite, some biotite remnants also. Feldspars unaltered 411-412 c.g. pegmatite. | | | |
| 415-455 | Garnetiferous feldspar biotite gneiss foliation @ 65° to C/A. The garnets are shattered light pink porphyro blasts generally between 1/20-1/5". narrow pegmatites generally conform to the foliation. Usually 2-4" peg. every 3 feet. | | | |
| | 446.5-449.5 thin fracture @ 070° to C/A biotite gneiss sericitized for ½" adjacent to the fracture. | 39932 | 3.0 | |

Don Nichols 211-5

Drill Hole Record



| | | | | |
|--------------|---------------|-----------|-----------|-------------|
| Property | Ruddock Creek | District | Hole No. | UG-77-12 |
| Commenced | | Location | Tests at | Hor. Comp. |
| Completed | | Core Size | Corr. Dip | Vert. Comp. |
| Co-ordinates | | | True Brg. | Logged by |
| Objective | | | % Recov. | Date |

| Footage From | To | Description | Sample No. | Length | Analysis | Claim | T Brg. | Collar Dip | Elev. | Length | Hole No. | Sheet |
|-----------------|----|---|---------------|--------|----------|-------|--------|------------|-------|--------|----------|-------|
| | | 449.5-450.5 - biotite gneiss small, yellow resinous grains of sphalerite best developed over middle half. | 39933 | 1.0 | | | | | | | | |
| | | 450.5-453.5 c.g.-m.g. pegmatite | 39934 | 3.0 | | | | | | | | |
| | | 453.5-455 biotite gneiss, pale yellow resinous sphalerite @ 454 2" pegmatite with thin sphalerite stringers | 39935 | 1.5 | | | | | | | | |
| 455-455.75 | | Mylonitized pegmatite, calc silicate and sulphides few c.g. sphalerite and pyrrhotite bands @ 70° to C/A. | 39936 | 0.75 | | | | | | | | |
| 455.75-456.25 | | c.g. pegmatite | 39937 | 0.5 | | | | | | | | |
| 456.25-458.5 | | Garnetiferous calc silicate - siliceous- some sections mylonitized, stringers and disseminations of sphalerite and pyrrhotite common- banding in section @ 60° to C/A | 39938 | 2.25 | | | | | | | | |
| 458.5-465.5 | | c.g. pegmatite trace po-sphal | 39939 | 7.0 | | | | | | | | |
| 465.5-466.5 | | bands of massive sphalerite with quartz grains in a garnetiferous, siliceous calc-silicate bands @ 30 | 39940 | 1.0 | | | | | | | | |
| 466.5-469.5 | | c.g. pegmatite, minor po, trace sphalerite | 39941 | 3.0 | | | | | | | | |
| 469.5-470 | | pegmatite and partially assimilated biotite gneiss | 39942 | 0.5 | | | | | | | | |
| 470 -472 | | Calc silicate with stringers and disseminations of c.g. sphalerite and pyrrhotite - bands @ 70-80° to C/A. | 39943 | 2.0 | | | | | | | | |

Don Nichols

Scale

Colour Plot
& Chips

Drill Hole Record



| | | | | |
|--------------|---------------|-----------|-----------|-------------|
| Property | Ruddock Creek | District | Hole No. | UG-77-12 |
| Commenced | | Location | Tests at | Hor. Comp. |
| Completed | | Core Size | Corr. Dip | Vert. Comp. |
| Co-ordinates | | | True Brg. | Logged by |
| Objective | | | % Recov. | Date |

| Footage | | Description | Sample No. | Length | Claim | T Brg. | Collar Dip | Elev. | Length | Hole No. |
|---------|-------|--|------------|--------|-------|--------|------------|-------|--------|----------|
| From | To | | | | | | | | | |
| 472 | 475 | Coarse grained cream white marble, minor calc silicate and pegmatite trace sulphides. | 39944 | 3.0 | | | | | | |
| 475 | 477 | c.g. pegmatite | 39945 | 2.0 | | | | | | |
| 477 | 477.5 | actinolite 3-4" band in calc silicate | 39946 | 0.5 | | | | | | |
| 477.5 | 479 | c.g. massive sphalerite and quartz. | 39947 | 1.5 | | | | | | |
| 479 | 516 | c.g. pegmatite, intergrown quartz-feldspars, muscovite books common. 468-488 pegmatite biotitic, disseminated pyrrhotite abundant, thin (1/10") stringers of po/sphal. | 39948 | 2.0 | | | | | | |
| 516 | 518 | Partially assimilated biotite gneiss - interlocking salt and pepper texture. minor disseminated po. 516.5-517 calc silicate @ 80° to C/A. | | | | | | | | |
| 518 | 520 | Calc silicate, minor biotite, disseminated Po. | | | | | | | | |
| 520 | 536 | Very c.g. pegmatite quartz to 2" across, medium grained sections contain 2-5% biotite. 525-527 dissem. po, trace sphal few amphibole minerals could indicate almost totally digested calc silicate | 39949 | 2.0 | | | | | | |
| 536 | 537½ | c.g. sphalerite and pyrrhotite in a very siliceous calc silicate a few 1" pegmatite bands @ 70° to C/A | 39950 | 1.5 | | | | | | |
| 537½ | 549½ | c.g. pegmatite | | | | | | | | |

Ron Nichols

Drill Hole Record



Property Ruddock Creek District Hole No. DG-77-12

Commenced Location Tests at Hor. Comp.

Completed Core Size Corr. Dip Vert. Comp.

Co-ordinates True Brg. Logged by

Objective % Recov. Date

Claim

T Brg.

Collar Dip

Elev.

Length

Hole No. Sheet

| Footage From To | Description | Sample No. | Length | Analysis |
|--------------------|--|---------------|--------|----------|
| 549½-552½ | Coarse grained white marble minor calc silicate and pegmatite, trace sulphides | 66551 | 3.0 | |
| 552½-560 | Mylonite zone - originally a well mineralized calc-silicate with sections of pegmatite, section is now extremely fine grained, banded siliceous, sulphide rich unit - calc silicate represented most by garnet. Pegmatite sections are streaky, fine grained with feldspar augens. | | | |
| | Sphalerite throughout this section is fine grained and light to dark tan. | | | |
| | 552.5-556 banded, siliceous, garnetiferous @ 50-60° to C/A | 66552 | 3.5 | |
| | sulphides moderately developed. | | | |
| | 556 - 557 2-1" biotite rich bands | 66553 | 1.0 | |
| | 2" near massive sphalerite/po band @ 60° to C/A | | | |
| | 557-558 same as 552.5-556 | 66554 | 1.0 | |
| | 558-559 near massive sphalerite - some quartz bands show minor folds | 66555 | 1.0 | |
| | attitudes 40-70° to C/A. | | | |
| | 559-560 as above | 66556 | 1.0 | |
| 560 - 564 | c.g. massive sphalerite in a calc silicate | | | |
| | 560-561 near massive c.g. sphalerite, quartz & po. | 66557 | 1.0 | |
| | 561-562 calc silicate - few sphal bands @ 50°. | 66558 | 1.0 | |
| | 562-563 near massive c.g. sphalerite, quartz and po. | 66559 | 1.0 | |
| | 563-564 calc silicate minor disseminated sphalerite and po. | 66560 | 1.0 | |
| 564 - 567 | c.g. pegmatite | 66561 | 3.0 | |
| 567-570 | calc silicates - massive sulphides well developed | 66562 | 1.5 | |
| | 567.5-568.5 pegmatite | | | |

Ron Nichols

Drill Hole Record

Property Ruddock Creek

District _____

Hole No. UG-77-12

Commenced _____

Location _____

Tests at _____

Hor. Comp. _____

Completed _____

Core Size _____

Corr. Dip _____

Vert. Comp. _____

Co-ordinates _____

True Brg. _____

Logged by _____

Objective _____

% Recov. _____

Date _____

Footage

From To

Description

Sample
No.

Length

Analysis

| | | | | | | | | | |
|-----|-----------|--|-------|-----|--|--|--|--|--|
| | 568.5-570 | massive sphalerite - 2 thin calc silicate bands @ 50° | 66563 | 1.5 | | | | | |
| 570 | - 635 | c.g. pegmatite with m.g. more biotitic sections | | | | | | | |
| | 579-581 | f.g. biotite gneiss - salt & pepper texture | | | | | | | |
| | 590-592 | calc silicate, trace sulphides | | | | | | | |
| | 595-595.5 | calc silicate | | | | | | | |
| | 595.5-597 | biotite gneiss | | | | | | | |
| | 608-609 | biotite gneiss | | | | | | | |
| 635 | - 649 | Feldspar biotite gneiss, cut by numerous narrow pegmatites, medium-fine grained pegmatite becomes more biotitic as the grain size decreases (possibly due to partially assimilated biotite gneiss) | | | | | | | |
| 649 | - 655 | Coarse grained pegmatite. | | | | | | | |
| 655 | - 658 | m.g. pegmatite and minor biotite gneiss | | | | | | | |
| 658 | | END OF HOLE. | | | | | | | |

Claim

T Brg.

Collar Dip

Elev.

Length

Hole No.

Sheet

Drill Hole Record



| | | | | |
|--------------|---------------|------------|-----------|---------------------|
| Property | Ruddock | District | Hole No. | LG-77-1 |
| Commenced | July 18, 1977 | Location | Lower G | Tests at |
| Completed | July 19, 1977 | Core Size | X-Ray | Corr. Dip |
| Co-ordinates | 22,577,18N | 23,026,02E | True Brg. | Hor. Comp. |
| Objective | | % Recov. | | Vert. Comp. |
| | | | | Logged by WSP & WEW |
| | | | | Date |

Claim

IT #4

IT Brg.

Collar Dip -90°

Elev.

7330.32

Length

100.5

Hole No.

Sheet

| Footage From To | Description | Sample No. | Length | Analysis |
|--------------------|--|---------------|--------|----------|
| 0-1.0 | Casing collared in limestone | | | |
| 1.0-3.0 | Calc-silicate, greyish green, limy | | | |
| 3.0-5.0 | Quartz biotite gneiss, very broken | | | |
| 5.0-10.0 | Quartzite, grey with dark laminations. Core < 45°, 2" pegmatite band at 6' 9.5' 2.5' of core missing | | | |
| 10.0-10.5 | Quartz biotite gneiss | | | |
| 10.5-12.0 | Calc-silicate gneiss, dense, light green, quartz rich layers | | | |
| 12.0-17.5 | Quartz biotite gneiss with muscovite pegmatite layers at 14.5' and 15' | | | |
| 17.5-19.5 | Pegmatite-coarse and medium grained, quartz biotite gneiss at base | | | |
| 19.5-21.0 | Near Solid Sulphide (NSS), brown sphalerite, pyrrhotite est 15% Zn 12.5-21.0 contorted Quartz lams, pretty good MARKER | 71334 | 1.5' | |
| 21.0-24.0 | Pegmatite 21-23 coarse grained, grey Est Nil 21-24 23-24 very broken contains some calc-silicate rock | 71335 | 3.0' | |
| 24.0-26.0 | Mineralized Quartzite, sphalerite and pyrrhotite Est 3% Zn 24-26 Quartz blebs occur in dark grey siliceous matrix | 71336 | 2.0 | |
| 26.0-28.0 | Calc-silicate rock with quartz-rich sections disseminated pyrrhotite Est Nil 26-28 | 71337 | 2.0 | |
| 28.0-28.5 | Quartz biotite gneiss | | | |
| 28.5-34.0 | Pegmatite, medium to coarse, white to grey Est Nil 28-34 | 71338 | 6.0 | |
| 34.0-36.0 | N.S.S. to 35.5 the slightly mineralized quartz rich calc-sil est 15% Zn 34-35.5 est < 1% Zn 35.5-36.0 | 71339 | 1.5 | |
| | | 71340 | 0.5 | |
| 36.0-39.0 | Calc-silicate gneiss with tremolite-actinolite and biotite est Nil 36-39 disseminated pyrrhotite. Core < 70 to 90° | 71341 | 3.0 | |

Ron Nichols
211-212

Scale

E. S. P. & S. P.

Drill Hole Record



| | | | |
|--------------|-----------|-----------|-------------|
| Property | District | Hole No. | LG-77-1 |
| Commenced | Location | Tests at | Hor. Comp. |
| Completed | Core Size | Corr. Dip | Vert. Comp. |
| Co-ordinates | | True Brg. | Logged by |
| Objective | | % Recov. | Date |

| Footage From To | Description | Sample No. | Length | Analysis | Claim | T Brg. | Collar Dip | Elev. | Length |
|--------------------|--|---------------|--------|----------------------|-------|--------|------------|-------|--------|
| 39.0-40.0 | Calc-silicate rock but 90% silica. Core 60° 1" sph. layer | 71342 | 1.0 | Est 1% Zn 39-40 | | | | | |
| 40.0-42.0 | Calc-silicate rock mineralized with sphalerite | 71343 | 2.0 | Est 20% Zn 40-42 | | | | | |
| 42.0-43.0 | Pegmatite, coarse much quartz 1 1/2" of sphalerite | 71344 | 1.0 | Est 5% Zn 42-43 | | | | | |
| 43.0-44.0 | Calc-silicate gneiss mineralized with sphalerite and po | 71345 | 1.0 | Est 5% Zn 43-44 | | | | | |
| 44.0-45.5 | Quartzite with fluorite, sphalerite and pyrrhotite | 71346 | 1.5 | Est 2% Zn 44-45.5 | | | | | |
| 45.5-52.5 | Medium grained biotite granite | 71347 | 7.0 | Est Nil 45.5-52.5 | | | | | |
| 52.5-53.0 | Near solid sulphide pyrrhotite and sphalerite | 71348 | 0.5 | Est 20% Zn 52.5-53.0 | | | | | |
| 53.0-54.5 | Pegmatite coarse grained, some feldspar has greenish tinge | | | | | | | | |
| 54.5-79.0 | Pegmatite coarse, tan | | | | | | | | |
| 79.0-88.0 | Quartz biotite gneiss, bands, Core 45° | | | | | | | | |
| 88-98 | Pegmatite (?) coarse | | | | | | | | |
| 98-100.5 | Quartz biotite gneiss Core > 45° | | | | | | | | |

Ben Nichols
211-7

Scale

Colour Print
& Dips

Drill Hole Record



| | | | | | | |
|--------------|---------------|------------|-----------|-------------------|--------------------|-------------|
| Property | Ruddock Creek | District | Hole No. | LG-77-2 | | |
| Commenced | July 20, 1977 | Location | Lower G | Tests at | Hor. Comp. | |
| Completed | July 21, 1977 | Core Size | X-Ray | Corr. Dip | -90° | Vert. Comp. |
| Co-ordinates | 23,483.54N | 23,026.54E | True Brg. | Logged by WSP/WEW | | |
| Objective | | | | % Recov. | Date July 21, 1977 | |

| | |
|------------|---------|
| Claim | IT #4 |
| T Brg. | |
| Collar Dip | -90° |
| Elev. | 7296.52 |
| Length | 71' |
| Hole No. | |

| Footage From To | Description | Sample No. | Length | Analysis |
|--------------------|--|----------------------|--------|----------|
| 0-6.0 | Pegmatite, coarse, rusty patches 1.5' core recovered from 2.5 to 7.0 | | | |
| 6.0-7.0 | Quartz biotite granite gneiss, salt and pepper textured biotite altered to chlorite? | | | |
| 7.0-8.5 | Pegmatite, coarse | | | |
| 8.5-11.5 | Calc silicate rock, greenish, quartz with, no marble | | | |
| 11.5-15.5 | Pegmatite, medium grained, grey, quartz biotite gneiss 13.5 to 14.0 | | | |
| 17.5-18.5 | Slightly Mineralized calc-silicate gneiss, minor pyrrhotite and sphalerite | Est. 1% Zn 17.5-18.5 | 71349 | 1.0 |
| 18.5-20.0 | Pegmatite, coarse, grey | Est Nil 18.5-22 | 71350 | 3.5 |
| 20.0-22.0 | Quartz biotite gneiss core 30° 2 1/2' core lost from 20.5 to 25.5 | | | |
| 22.0-24.0 | Slightly mineralized quartzite, blocky, pyrrhotite, sphalerite, fluorite | Est 2% 22.0-24.0 | 71351 | 2.0 |
| 24.0-25.5 | Pegmatite | Est Nil 24-25.5 | 71352 | 1.5 |
| 25.5-27.6 | Near Solid Sulphide, fine grained brown sphalerite with minor pyrrhotite, quartz blebs | Est 15% Zn 25.5-27.5 | 71353 | 2.0 |
| 27.5-34.0 | Pegmatite medium to coarse grained, grey | Est Nil 27.5-34.0 | 71354 | 6.5 |
| 34.0-37.0 | Mineralized Quartzite (2' of core) pyrr and sphalerite | Est 5% Zn 34.0-37.0 | 71355 | 3.0 |
| 37.0-39.5 | Pegmatite (6" core recovered) | Est Nil 37.0-39.5 | 71356 | 2.5 |
| 39.5-41.5 | Mineralized calc silicate rock, pyrrhotite and sphalerites | Est 5% Zn 39.5-41.5 | 71357 | 2.0 |
| 41.5-44.0 | Pegmatite, coarse | | | |
| 44.0-53.0 | Granite, biotite medium to fine grained | | | |
| 53.0-68.5 | Pegmatite with sections of quartz biotite gneiss | | | |
| 68.5-71.0 | Altered quartz biotite gneiss chlorite | | | |
| END | | | | |

Drillers report ground broken, losing water - Hole located on a promitory

Ron Mitchell

Sheet

Hole No.

Drill Hole Record



Property Ruddock District Hole No. LG-77-3
 Commenced July 21, 1977 Location Lower G Tests at Hor. Comp.
 Completed July 22, 1977 Core Size X-Ray Corr. Dip 90° Vert. Comp.
 Co-ordinates 22,388.40N 23,003.60E True Brg. Logged by WEW
 Objective % Recov. Date July 22, 1977

Claim IT #3
 T Brg. Collar Dip - 90°
 Elev. 7221.30 Length 80'

| Footage | | Description | EST | Sample No. | Length | Analysis |
|---------|------|---|--|----------------------------------|--------------------------|----------|
| From | To | | | | | |
| 0 | 3.0 | Cas. | | | | |
| 3.0 | 5.0 | Pegmatite, coarse, leached (50% recovery) | | | | |
| 5.0 | 7.5 | Well mineralized calc-silicate, pale green, limy sulphide = galena + sphalerite coarse grained. | EST 2% Pb 8% Zn 5.0-7.5 | 71358 | 2.5 | |
| 7.5 | 11.0 | Granite and Pegmatite leached to 10.0' greenish colour 10 to 11.0 | EST NIL 7.5-11.0 | 71359 | 3.5 | |
| 11.0 | 22.0 | Well mineralized to near solid sulphide, calc silicate, greenish colour, quartz blebs with sphalerite from 11.5 to 15.0 and 16 to 20 core < 40° at 11' 0° at 15 to 16' 45° at 20' | EST 15% 11.0-15.0 " 2% 15.0-16.5 " 12% 16.5-20.0 " 5% 20.0-22.0 | 71360 71361 71362 71363 | 4.0 1.5 3.5 2.0 | |
| 22.0 | 23.0 | Pale green, aphanitic, limy rock, slightly soapy feel, occasional bleb of sph. leached and rusty at base. | EST < 1% 22.0-23.0 | 71364 | 1.0 | |
| 23.0 | 23.5 | Well mineralized cal-silicate | EST 5% 23-23.5 | 31365 | 0.5' | |

Bob Nichols

Drill Hole Record



| | | | |
|--------------|-----------|------------------|-------------|
| Property | District | Hole No. LC-77-3 | |
| Commenced | Location | Tests at | Hor. Comp. |
| Completed | Core Size | Corr. Dip | Vert. Comp. |
| Co-ordinates | | True Brg. | Logged by |
| Objective | | % Recov. | Date |

| | | | | |
|-------|-------|------------|-------|--------|
| Claim | IT #3 | Collar Dip | Elev. | Length |
| | | | | |

| Footage From To | Description | EST | Zn | Sample No. | Length | Analysis |
|--------------------|--|----------|-------------|---------------|--------|----------|
| 23.5 - 27.5 | Calc Silicate rock, greenish in colour, slightly limey, some sericite, attrition effect? Core $\angle = 30^\circ$ | EST 1%Zn | 23.5 - 27.5 | 31366 | 4.0 | |
| 27.5 - 28.0 | Mineralized calc-silicate | EST 5%Zn | 27.5 - 28 | 31367 | 0.5 | |
| 28.0 - 42.0 | Slightly mineralized calc silicate (in place) ie 33.5 to 36 Pegmatite greenish 38 to 39 sericite 40 to 42' increasing Core $\angle 45^\circ$ at 41.5' | | 33.5 - 36.0 | 31368 | 2.5 | |
| 42.0 - 46.0 | Quartz biotite gneiss with pegmatite core $\angle 45^\circ$ at 46' | | | | | |
| 46.0 - 48.0 | Pegmatite, rusty, coarse. | | | | | |
| 48.0 - 50.5 | Quartz biotite gneiss with quite a lot of pegmatite core $\angle \approx 70^\circ$ at 49' | | | | | |
| 50.5 - 66.5 | Pegmatite, coarse, rusty. | | | | | |

Ren Nichols

Drill Hole Record



Property Ruddock Creek District Hole No. LG-77-4
 Commenced Location Lower G Tests at Hor. Comp.
 Completed Core Size X-Ray Corr. Dip Vert. Comp.
 Co-ordinates 22,306.14 N 22,995.51 True Brg. Logged by WSP/NEW
 Objective % Recov. Date July 23, 1977

Claim
 T T #3
 T Brg.
 Collar Dip -90°
 Elev. 7200.29
 Length 91'

| Footage | | Description | Sample No. | Length | Analysis |
|---------|------|---|------------|--------|----------|
| From | To | | | | |
| 0.0 | 1.0 | Casing | | | |
| 1.0 | 5.0 | Pegmatite, coarse, rusty sections. | | | |
| 5.0 | 9.5 | Quartz biotite gneiss with pegmatite bands Core \angle 45° at 9' | | | |
| 9.5 | 10.0 | Quartzite with tremolite and pyrrhotite Core \angle \approx 30° | | | |
| 10.0 | 12.0 | Calc-silicate with biotite | | | |
| 12.0 | 12.5 | White quartzite | | | |
| 12.5 | 15.5 | Calc-silicate with some disseminated pyrrhotite core \angle 70° at 15' | | | |
| 15.5 | 18.0 | Pegmatite coarse, grey, rust sections foliated in part (biotite) 2" of gneiss at 17.5 | | | |
| 18.0 | 20.0 | Calc-silicate gneiss, greenish very minor pyrrhotite possibly sphalerite. short sections of qtz, bio gn and pegmatite. | | | |

Ron Mitchell

Scale

Colour Plot
& Dips

Drill Hole Record



| | | | |
|--------------|-----------|------------------|-------------|
| Property | District | Hole No. LG-77-4 | |
| Commenced | Location | Tests at | Hor. Comp. |
| Completed | Core Size | Corr. Dip | Vert. Comp. |
| Co-ordinates | | True Brg. | Logged by |
| Objective | | % Recov. | Date |

| Footage From To | Description | EST | Zn | Sample No. | Length | Analysis | | | | |
|--------------------|---|-------------|----|------------|--------|----------|--------|------------|-------|--------|
| | | | | | | Claim | T Brg. | Collar Dip | Elev. | Length |
| 53.5 - 55.5 | Pegmatite, coarse | EST NIL | | 71374 | 2.0 | | | | | |
| 55.5 - 57.5 | Calc-silicate, very siliceous, layered sl. mineralized | EST 1% Zn | | 71375 | 2.0 | | | | | |
| 57.5 - 59.5 | Pegmatite | EST NIL | | 71376 | 2.0 | | | | | |
| 59.5 - 60.0 | Near solid sulphite, sphalerite and pyrrhotite | EST 15% | | 71377 | 0.5 | | | | | |
| 60.0 - 61.5 | Quartz biotite gneiss | EST NIL | | 71378 | 1.5 | | | | | |
| 61.5 - 66.0 | Shattered quartz - possible vein pyrrhotite and sphalerite disseminated in fractures trace chalcopyrite | EST 1% Zn | | 71379 | 4.5 | | | | | |
| 66.0 - 69.0 | Greenish (alteration effect) pegmatite green mineral unknown possibly some chlorite | EST NIL | | 71380 | 2.0 | | | | | |
| 69.0 - 76.0 | Siliceous calc-silicate with pegmatite stringers slightly mineralized, broken up. Pegmatite 73.5 to 74.5 Sulphides 69 to 73.5 est 2.5% Zn 73.5 - 76 est ton | EST 2.5% Zn | | 71381 | 4.5 | | | | | |
| | | EST trace. | | 71382 | 2.5 | | | | | |

Ron Nichols
211-6

Scale

Colour Plot
& Clips

Drill Hole Record



| Property | | District | Hole No. LC-77-4 | | | | | |
|--------------|------|---|------------------|-------------|-------------|-------------|----------|-----|
| Commenced | | Location | Tests at | | Hor. Comp. | | | |
| Completed | | Core Size | Corr. Dip | | Vert. Comp. | | | |
| Co-ordinates | | True Brg. | | Logged by | | | | |
| Objective | | % Recov. | | Date | | | | |
| Footage | | Description | | | Sample No. | Length | Analysis | |
| From | To | | | | | | | |
| 20.0 | 21.0 | Calc - silicate, silica rich, with fluorite | | | | | | |
| 21.0 | 23.0 | Pegmatite, 3" band of calc-silicate at 22' | | | | | | |
| 23.0 | 25.0 | Quartzite-chert, laminated, mineralized layers | EST 6-7% | 23.0 - 25.0 | 71369 | 2.0 | | |
| | | possible MARKER. | | | | | | |
| 25.0 | 34.5 | Quartz biotite gneiss, sections of pegmatite Core \angle 70° | | | | | | |
| 34.5 | 39.0 | Pegmatite with biotite and thin bands of quartz biotite gneiss | | | | | | |
| 39.0 | 46.5 | Pegmatite coarse with remnants of calc-silicate | | | | | | |
| 46.5 | 47.5 | Slightly mineralized calc silicate gneiss | EST 1.5% Zn | 46.5 - 47.5 | 71370 | 1.0 | | |
| 47.5 | 52.0 | Pegmatite with calc-silicate remnants | | | EST NIL | 47.5 - 52.0 | 71371 | 4.5 |
| 52.0 | 53.0 | Pegmatite with quartz biotite remnants | | | EST NIL | 52.0 - 53.0 | 71372 | 1.0 |
| 53.0 | 53.5 | Calc-silicate | | | EST NIL | 53.0 - 53.5 | 71373 | 0.5 |

Ron Michals

Scale

Color, Dip
& Dist

Drill Hole Record



Property Ruddock District Location Lower G Hole No. LG-77-5
 Commenced July 23, 1977 Tests at Hor. Comp.
 Completed July 23, 1977 Core Size X Ray Corr. Dip -90° Vert. Comp.
 Co-ordinates 22,232.21 N 23,035.34 True Brg. Logged by WEW
 Objective % Recov. Date July 25, 1977

 Claim
 IT #3
 T Brg.

Collar Dip -90°

Elev. 7192.86

Length 47.5'

| Footage From To | Description | EST trace | Sample No. | Length | Analysis |
|--------------------|--|-----------|---------------|--------|----------|
| 0 - 1.0 | Casing | | | | |
| 1.0 - 3.0 | Pegmatite, coarse, rust stain | | | | |
| 3.0 - 6.0 | Slightly mineralized calc-silicate with biotite 1' of amphibolite 4.5 to 5.5 | EST trace | 71392 | 3.0 | |
| 6.0 - 15.0 | Quartz biotite gneiss, schistose at start becoming granitic, gneissosity at 50' to core | | | | |
| 15.0 - 16.5 | Pegmatite, coarse | | | | |
| 16.5 - 20.0 | Slightly mineralized calc-silicate with pyrrhorite some garnet, limey | EST trace | 71393 | 3.5 | |
| 20.0 - 21.5 | Pegmatite and quartz biotite gneiss in last .5' | | | | |
| 21.5 - 22.5 | Biotite and bright green bladed mineral (actinolite) | | | | |
| 22.5 - 30.5 | Pegmatite, coarse, rust stain. | | | | |
| 30.5 - 31.5 | Slightly mineralized calc-silicate, garnet | EST trace | 71394 | 1.0 | |

Ren Nichols

Drill Hole Record



| | | | |
|--------------|-----------|------------------|-------------|
| Property | District | Hole No. LG-77-5 | |
| Commenced | Location | Tests at | Hor. Comp. |
| Completed | Core Size | Corr. Dip | Vert. Comp. |
| Co-ordinates | | True Brg. | Logged by |
| Objective | | % Recov. | Date |

| Footage | | Description | Sample No. | Length | Analysis | Claim | T Brg. | Collar Dip | Elev. | Length |
|--------------|------|---|------------|-------------|----------|-------|--------|------------|-------|--------|
| From | To | | | | | | | | | |
| 31.5 | 40.5 | Mineralized quartzite with minor calc-silicate layers, mostly pyrrhotite to 35(1/2%) then sphalerite sphalerite orange to black | est 2% Zn | 31.5 - 35.0 | 71395 | 3.5 | | | | |
| | | | est 12% | 35.0 - 40.5 | 71396 | 5.5 | | | | |
| 40.5 | 42.0 | Quartzite or chert (laminated) fine dark and light lams minor ton 5, lams 50° to core | est < 1% | 40.5 - 42.0 | 71397 | 1.5 | | | | |
| | | | MARKER | | | | | | | |
| 42.0 | 46.0 | Chloritic biotite rock, possible shear zone large feldspar augen aligned at 45° to core | | | | | | | | |
| 46.0 | 47.0 | Pegmatite, white, coarse. | | | | | | | | |
| 47.0 | 47.5 | 2" recovered - light green, massive, fine grained, diabasic appearing rock. | | | | | | | | |
| Hole stopped | | Bit broke off in hole. | | | | | | | | |

Don Nichols

Drill Hole Record



Property Ruddock Creek District _____ Hole No. LC-77-6
 Commenced July 24, 1977 Location Lower G Tests at _____ Hor. Comp. _____
 Completed July 25, 1977 Core Size X Ray Corr. Dip -90° Vert. Comp. _____
 Co-ordinates 22,176.68 N 23,033.11E True Brg. _____ Logged by _____
 Objective _____ % Recov. _____ Date _____

Claim IT #3
T Brg.

Collar Dip -90°

Elev. 7169.21'

Length 92'

| Footage | | Description | Sample No. | Length | Analysis |
|---------|------|---|--------------|-----------|-----------|
| From | To | | | | |
| 0 | 1.0 | Casing | | | |
| 1.0 | 2.5 | Biotite granite | | | |
| 2.5 | 6.0 | Mica schist with 2" bright green actinolite (bladed mineral) at 3.8' | | | |
| 6.0 | 6.5 | Biotite quartzite | | | |
| 6.5 | 7.0 | Mineralized Calc-Silicate, mostly pyrrhotite | est tr Pb Zn | 6.5 - 7.0 | 71383 0.5 |
| 7.0 | 9.0 | Calc-silicate | est nil | 7.0 - 9.0 | 71384 2.0 |
| 9.0 | 19.0 | Quartz biotite gneiss Core $\angle 50^\circ$ gneissosity faint or absent in places | | | |
| 19.0 | 28.5 | Pegmatite, coarse, muscovite, grey, slightly-stained. | | | |
| 28.5 | 35.5 | Quartz biotite gneiss and pegmatite, variable biotite content on both. Core $\angle \approx 50^\circ$ | | | |
| 35.5 | 39.0 | Pegmatite, grey, coarse. | | | |

Ron Nichols

Drill Hole Record



| | | | |
|--------------|-----------|-----------|-------------|
| Property | District | Hole No. | LG-77-6 |
| Commenced | Location | Tests at | Hor. Comp. |
| Completed | Core Size | Corr. Dip | Vert. Comp. |
| Co-ordinates | | True Brg. | Logged by |
| Objective | | % Recov. | Date |

| Footage From To | Description | Sample No. | Length | Analysis | Claim | Tr #3 | T Brg. | Collar Dip | Elev. | Length |
|--------------------|---|---------------|--------|-------------|-------|-------|--------|------------|-------|--------|
| 39.0 - 45.5 | Quartz biotite granite gneiss, gneissosity very weak pegmatite 42.5 - 43.5 | | | | | | | | | |
| Lost 5' | of core from 1.0 to 41.0 | | | | | | | | | |
| 45.5 - 50.0 | Pegmatite, grey, coarse, mostly feldspar and quartz. | | | | | | | | | |
| 50.0 - 54.5 | Mixed gneiss, quartzite and bio-quartzite mostly quartzite after 51' Core < 50° | | | | | | | | | |
| 54.5 - 55.5 | Mineralized siliceous calc-silicate with some thin interbedded quartz. Poor MARKER Recovery 50% 50 to 55 | 71385 | 1.0 | est 2.5% Zn | | | | | | |
| 55.5 - 58.0 | Good quartzite rust stained, broken ground trace sulphides, 50% recovery 55 to 60 | 71386 | 2.5 | est < 1% | | | | | | |
| 58.0 - 68.0 | Pegmatite, grey, stained, coarse, muscovite some biotite | | | | | | | | | |
| 68.0 - 70.0 | Calc-silicate with pegmatite | 71387 | 2.0 | est trace | | | | | | |

Ren Nichols

Scale

Geological Plot
& Maps

Drill Hole Record



| | | | |
|--------------|-----------|-----------|-------------|
| Property | District | Hole No. | LG-77-6 |
| Commenced | Location | Tests at | Hor. Comp. |
| Completed | Core Size | Corr. Dip | Vert. Comp. |
| Co-ordinates | | True Brg. | Logged by |
| Objective | | % Recov. | Date |

| Footage | | Description | Sample No. | Length | Analysis | Claim | T Brg. | Collar Dip | Elev. | Length |
|--|--------|---|------------|--------|----------|-------|--------|------------|-------|--------|
| From | To | | | | | | | | | |
| 70 | - 72.5 | Pegmatite grey, coarse 2 - 2" qtz bio gn. sections at start and end | 71388 | 2.5 | | | | | | |
| 72.5 | - 74.5 | Near solid sulphide sphalerite | 71389 | 2.0 | | | | | | |
| 74.5 | - 76.5 | Pegmatite, coarse, grey | 71390 | 2.0 | | | | | | |
| 76.5 | - 79.0 | Calc-silicate, slightly mineralized, very siliceous sulphides mostly pyrrhotite | 71391 | 2.5 | | | | | | |
| 79.0 | - 92.0 | Quartz biotite gneiss some thin pegmatite bands at core at 40 to 50°, near granite schistose and stained 87 to 89.0 | | | | | | | | |
| <p>Note - Doubt if sulphides 72.5 to 74.5 represent surface showing surface stain is only 20' east of hole collar. Extreme eastern edge of sulphides \approx 100' east 75' last of hole strike is N-S dip 30° west.</p> | | | | | | | | | | |

Ben Nichols
2117

Scale

Colour Plot
& Dips

Drill Hole Record



Property Ruddock Creek District Kamloops M.D. 82M-15 Hole No. LG-77-7
 Commenced August 17, 1977 Location 400' W. Lower G Zone Tests at 350' Hor. Comp. _____
 Completed August 21, 1977 Core Size BQ Corr. Dip -89° Vert. Comp. 355'
 Co-ordinates 22,596.96N; 22,754.14E True Brg. _____ Logged by R.F. Nichols
 Objective Test down plunge extension of Lower G Zone. % Recov. 92.3% Date August 19-21, 1977

Claim

IT #4

T Brg.

Collar Dip - 90°

Elev.

7358.48'

Length 355'

Hole No. Street

| Footage From To | Description | Sample No. | Length | Analysis |
|--------------------|--|---------------|--------|----------|
| 0- 4 | Casing | | | |
| 4-47 | Coarse grained pegmatite | | | |
| 47-49½ | Dense green chloritic rock, probably an altered garnetiferous biotite gneiss. | | | |
| 49½-62 | Siliceous calc silicate, diopside, garnet common attitudes @ 60° to C/A. thin, irregular pegmatite sections common, minor disseminated pyrrhotite locally developed. | | | |
| | 54-62 actinolite abundant to semi-massive, a few scattered hornblende rich sections occur with the actinolite. | | | |
| | 59- 3" massive garnet band @ 60°. | | | |
| 62 - 90 | Coarse grained pegmatite - feldspars creamy white to pale green - weakly kaolinized. | | | |
| 90 -119 | Oxidized, fractured pegmatite - mottled tan to red brown, fracturing @ 0-20° to C/A, fractures are thin, rusty. Feldspars weakly kaolinized | | | |
| | 96- crushed, gougy pegmatite @ 20° to C/A. | | | |
| 119-124 | Feldspar biotite gneiss - partially assimilated by pegmatite which is usually irregular along foliation, attitudes variable 40-60° to C/A. | | | |
| 124/126 | C.g. pegmatite | | | |
| 126-129 | as above (119-124) | | | |

R.F. Nichols

Drill Hole Record



| | | | | |
|--------------|---------------|-----------|-------------|---------|
| Property | Ruddock Creek | District | Hole No. | LC-77-7 |
| Commenced | Location | Tests at | Hor. Comp. | |
| Completed | Core Size | Corr. Dip | Vert. Comp. | |
| Co-ordinates | | True Brg. | Logged by | |
| Objective | | % Recov. | Date | |

| Footage From | To | Description | Sample No. | Length | Analysis | Claim | T Brg. | Collar Dip | Elev. | Length |
|-----------------|----|---|---------------|--------|----------|-------|--------|------------|-------|--------|
| 129-165 | | c.g. pegmatite, fracturing and oxidation less intense than (90-119) oxidation now only locally developed adjacent to the fractures, fracture density now between 1-2 and less than 1/foot and @ 10-30° to C/A feldspars creamy white, hard. | | | | | | | | |
| 165-183 | | Feldspar biotite gneiss, foliation @ 40° to C/A pegmatite common throughout the section as thin (1/2-6") bands along the foliation. | | | | | | | | |
| | | 171-172 and 178-180 dense green, chloritic, garnets common. | | | | | | | | |
| 183-214 | | c.g. pegmatite, feldspars weak to locally moderately kaolinized - occasional rusty fracture still seen. | | | | | | | | |
| 214-222 | | Feldspar biotite gneiss foliation @ 40° to C/A. thin pegmatite common along foliation. | | | | | | | | |
| 222-225 | | c.g. pegmatite | | | | | | | | |
| 225-228 | | Feldspar biotite gneiss (as above-214-222) | | | | | | | | |
| 228-233 | | c.g. pegmatite | | | | | | | | |
| 233-236 | | Feldspar biotite gneiss (as above -214-222) | | | | | | | | |
| 236-246 | | c.g. pegmatite - feldspars creamy white to pale green weak to moderate kaolinization. | | | | | | | | |
| 246-250 | | Feldspar biotite gneiss foliation @ 60° to C/A pegmatite flooding as above. | | | | | | | | |
| 250-251 | | remnant calc silicate? - irregular patches of actinolite in quartz rich section. | | | | | | | | |
| 251-263 | | c.g. pegmatite - feldspars altered as above. | | | | | | | | |

Ron Neilson

Scale

Colour Plot
& Dip.

Drill Hole Record



Property Ruddock Creek District _____ Hole No. LC-77-7

Commenced _____ Location _____ Tests at _____ Hor. Comp. _____

Completed _____ Core Size _____ Corr. Dip _____ Vert. Comp. _____

Co-ordinates _____ True Brg. _____ Logged by _____

Objective _____ % Recov. _____ Date _____

| Footage From To | Description | Sample No. | Length | Analysis | | | | | |
|--------------------|--|----------------|------------|----------|--------|------------|-------|--------|--|
| | | | | Claim | T Brg. | Collar Dip | Elev. | Length | |
| 263-272 | Intense fracturing/shearing in a pegmatitic unit, core recovery less than 50%, sections intensely kaolinized, fractures @ 0-30° to C/A. 269-270 minor gouge. | | | | | | | | |
| 272-275 | Quartz feldspar biotite gneiss foliation @ 40° to C/A locally garnetiferous. | | | | | | | | |
| 275-283 | c.g. pegmatite - few thin rusty fractures. 277-6" band of quartz-felds-biot gneiss 278-279 quartz-felds-biot-gneiss, occasional garnet. | | | | | | | | |
| 283-286 | Quartz feldspar biotite gneiss with two thin, indistinct bands of calc silicate disseminated pyrrhotite and minor sphalerite. | 66564 | 3.0 | | | | | | |
| 286-292 | Siliceous calc silicate - diopside/actinolite present, thin bands and some "folding" of pegmatite, disseminated pyrrhotite and sphalerite throughout 286-4" near massive pyrrhotite, minor sphalerite. | 66565 66566 | 2.0 4.0 | | | | | | |
| 292-302 | partially assimilated biotite gneiss, foliation @ 50° to C/A. 8" pegmatite bands @ 293, 294, 295. | | | | | | | | |
| 302-309 | c.g. pegmatite, chlorite healed fractures common, feldspars creamy white, weakly kaolinized 302-306½ disseminated pyrrhotite, minor sphalerite 302- narrow (1") mylonite zone @ 30° to C/A. | 66567 | 4.5 | | | | | | |

Ron Nichols
2110

Drill Hole Record



| | | | | |
|--------------|---------------|-----------|-----------|-------------|
| Property | Ruddock Creek | District | Hole No. | LG-77-7 |
| Commenced | | Location | Tests at | Hor. Comp. |
| Completed | | Core Size | Corr. Dip | Vert. Comp. |
| Co-ordinates | | | True Brg. | Logged by |
| Objective | | | % Recov. | Date |

| Footage From | To | Description | Sample No. | Length | Analysis | | | | |
|-----------------|----|---|---------------|--------|----------|--------|------------|-------|--------|
| | | | | | Claim | T Brg. | Collar Dip | Elev. | Length |
| | | 306.5-307 - 2" band of solid copper brown fine grained sphalerite | 66568 | 0.5 | | | | | |
| | | @ 50° to C/A other than stringers of spahl as well | 307-309 | 66569 | 2.0 | | | | |
| 309-312½ | | Massive, fine grained brown sphalerite, quartz grains common- few calc | | | | | | | |
| | | silicate remnants. 312-312½ mylonite - siliceous @ 70° to C/A. | 309-311 | 66570 | 2.0 | | | | |
| | | few thin sphalerite bands. | 311-312½ | 66571 | 1.5 | | | | |
| 312½-314½ | | Pegmatite - minor chloritic fractures, sphalerite as disseminations | | 66572 | 1.0 | | | | |
| | | and on hairline fractures | | | | | | | |
| | | 313½-314½ one -½" and one -1" band of massive brown f.g. sphalerite - | | 66573 | 1.0 | | | | |
| | | bands @ 60° to C/A | | | | | | | |
| 314½-317 | | Siliceous calc silicate, disseminated sphalerite & po. | | 66574 | 2.5 | | | | |
| | | occasional band of heavily disseminated sphalerite & po. | | | | | | | |
| 317-323 | | Feldspar biotite gneiss - thin pegmatite along foliation @ 50° to C/A. | | | | | | | |
| 323-332 | | c.g. pegmatite, minor partially assimilated sections of biotite gneiss. | | | | | | | |
| 332-333 | | Calc silicate - some massive actinolite with c.g. marble and hornblende, c.g. | | | | | | | |
| | | pyrrhotite as well. | | | | | | | |
| 333-334 | | m.g. white marble - minor calc silicate minerals. | | | | | | | |
| 334-339 | | c.g. pegmatite | | | | | | | |
| 339-342 | | partially assimilated biotite gneiss, small section with chloritic biotite, | | | | | | | |
| | | attitudes @ 40° to C/A. | | | | | | | |
| 342-355 | | c.g. pegmatite | | | | | | | |
| #355# | | END OF HOLE. | | | | | | | |

Don Nichols

Drill Hole Record



Property RUDDOCK CREEK District Kamloops M.D. 82-M-1 Hole No. LG-77-8
 Commenced August 24, 1977 Location 400' W lower G zone Tests at 400' Hor. Comp.
 Completed August 28, 1977 Core Size BQ Corr. Dip -88° Vert. Comp.
 Co-ordinates 22,501.75N; 22,698.24E True Brg. Logged by R.F. Nichols
 Objective Test down plunge extension of lower G zone. % Recov. 90.4% Date Aug. 26-28/77

Claim IT #4

T Brg.

Collar Dip -90°

Elev.

7300.78'

Length 400'

| Footage From | To | Description | Sample No. | Length | Analysis |
|--------------|-----|--|------------|--------|----------|
| 0 | 6 | Casing | | | |
| 6 | 68 | Coarse grained - very coarse grained pegmatite, oxidized locally large books of muscovite (to 1") occasional thin fractures @ $30-60^{\circ}$. | | | |
| 68 | 75 | Feldspar biotite gneiss - foliated to equigranular. foliation @ 60° to core axis 71-72 minor pegmatite. 69-69.5) calc silicate sections with abundant 73-73.5) garnet and actinolite. | | | |
| 75 | 102 | Pegmatite - from fg. - v.c.g. (qtz to 1") feldspars creamy white, weakly altered. Fine-medium grained phases equigranular, with few % biotite. 93-94 biotite gneiss foliation @ 40° to C/A. | | | |
| 102 | 159 | Pegmatite c.g. - v.c.g. (qtz to 2") unaltered. 113-114 biotite gneiss foliation @ 40° to C/A. 132 6" equigranular biotite gneiss | | | |
| 159 | 189 | Variable siliceous to limy calc silicate - diopside common. Possibly some pale green, dense-actinolite, garnets locally common. Graphite sections present throughout, with the graphite more abundant in the limy calc silicate sections, also minor disseminated pyrrhotite. 160-161 dark grey quartzite very graphitic. 161-164 siliceous calc silicate graphite bands @ $30-40^{\circ}$ to C/A. 164-168 limy calc silicate 168-169 biotite bands @ 10° to C/A. | | | |

Ren Nichols

Drill Hole Record



| | | | |
|--------------|-----------|-----------|-------------|
| Property | District | Hole No. | LG-77-8 |
| Commenced | Location | Tests at | Hor. Comp. |
| Completed | Core Size | Corr. Dip | Vert. Comp. |
| Co-ordinates | | True Brg. | Logged by |
| Objective | | % Recov. | Date |

| Footage From To | Description | Sample No. | Length | Analysis | | | | | |
|--------------------|--|---------------|--------|----------|--------|------------|-------|--------|--|
| | | | | Claim | T Brg. | Collar Dip | Elev. | Length | |
| | 169-171 siliceous calc silicate | | | | | | | | |
| | 172-179 limy calc silicate 176' banding @ 10° to C/A. 178' banding @ 70° to C/A. | | | | | | | | |
| | 179-185 siliceous calc silicate actinolite abundant, some hornblende. | | | | | | | | |
| | 185-189 limy calc silicate | | | | | | | | |
| 189 - 206 | Feldspar biotite gneiss foliation @ 50-60° to C/A. erratic rusty sections along the foliation. pegmatite as follows 187½-188½; 195-196; 201-202; 204.5-205.5 | | | | | | | | |
| 206-261 | Pegmatite - c.g. feldspars creamy white to pale green - (weakly altered) minor oxidized fractures and patches a few finer grained phases display a dense, olive green color. | | | | | | | | |
| | 223-228 poor recovery - biotite gneiss - sheared along foliation @ 10-30° to C/A. | | | | | | | | |
| 261 - 267 | Feldspar - biotite gneiss, foliation @ 70° to C/A. patchy oxidation along foliation | | | | | | | | |
| 267 - 303 | pegmatite - c.g. feldspar creamy white to pale green, oxidation common. 267-295 mucaceous component mostly muscovite. 295-303 chlorite common (from biotite?). | | | | | | | | |
| 303 - 308 | Feldspar biotite gneiss, minor pegmatite, foliation @ 50° to C/A. some medium grained - biotitic pegmatite | | | | | | | | |
| 308 - 316 | Pegmatite c.g. some biotitic sections. | | | | | | | | |

Don Michals

Drill Hole Record



| Property | | District | Hole No. LG-77-8 | | Claim | T Brg. | Collar Dip | Elev. | Length | Hole No. | Sheet |
|--------------------|--|---------------|------------------|-----------|-------------|--------|------------|-------|--------|----------|-------|
| Commenced | | Location | Tests at | | Hor. Comp. | | | | | | |
| Completed | | Core Size | Corr. Dip | | Vert. Comp. | | | | | | |
| Co-ordinates | | True Brg. | | Logged by | | | | | | | |
| Objective | | % Recov. | | Date | | | | | | | |
| Footage From To | Description | Sample No. | Length | Analysis | | | | | | | |
| 316- 326 | Feldspar biotite gneiss foliation @ 50 to C/A. | | | | | | | | | | |
| | 318 - 326 garnetiferous foliation now 70°. | | | | | | | | | | |
| 326 - 326½ | Pegmatite | | | | | | | | | | |
| 326½-332 | Siliceous calc silicate, attitude as indicated by diopside rich layers @ 60° to C/A. Generally the unit is medium grained some white equigranular with abundant diopside. Minor limy component, and limy sections at 327½-328 and 330½ - 331 | | | | | | | | | | |
| | trace to minor amounts of pyrrhotite and sphalerite | 66576 | 5.5 | | | | | | | | |
| 332-338 | Pegmatite c.g. occasional trace sulphides 327-337 | 66577 | 5.0 | | | | | | | | |
| | 337-338 contact between pegmatite and limy calc silicate with 2 thin stringers | 66578 | 1.0 | | | | | | | | |
| | containing galena, red brown sphalerite and pyrrhotite @ 60° pb Zn. | | | | | | | | | | |
| 338-349 | Limy calc silicate fine-med grained, equigranular diopside very abundant, massive no bedding attitudes | | | | | | | | | | |
| | 338-339 1" stringer and 2-1/10" of sphalerite, pyrrhotite galena, minor chalcop- | 66579 | 1.0 | | | | | | | | |
| | rite (?) 339-344 | 66580 | 5.0 | | | | | | | | |
| | 343½ - 344½ Pegmatite, galena along upper contact @ 30° 344-349 | 66581 | 5.0 | | | | | | | | |
| | between contact to 70°. | | | | | | | | | | |
| 349-353 | Medium grained massive sulphide zone with abundant intermixed galena, sphalerite | | | | | | | | | | |

Ron Nichols
211-213

Drill Hole Record



| | | | |
|--------------|-----------|------------------|-------------|
| Property | District | Hole No. LG-77-8 | |
| Commenced | Location | Tests at | Hor. Comp. |
| Completed | Core Size | Corr. Dip | Vert. Comp. |
| Co-ordinates | | True Brg. | Logged by |
| Objective | | % Recov. | Date |

| Footage From To | Description | Sample No. | Length | Analysis | Claim | T Brg. | Collar Dip | Elev. | Length |
|--------------------|--|---------------|--------|----------|-------|--------|------------|-------|--------|
| | and pyrrhotite pb > Zn., also fluorite in calc silicate host - diopside common | | | | | | | | |
| | contacts w c.s. @ 40° to C/A. | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| 353 - 358 | pegmatite c.g. chlorite clots common | | | | | | | | |
| 358-363 | Pegmatite and bands of massive sphalerite, pyrrhotite @ 20-30° to C/A. minor | | | | | | | | |
| | calc silicate with banding @ 30° | | | | | | | | |
| 363-370 | Massive sphalerite - mostly fine grained, red brown, some weak | | | | | | | | |
| | magnetism in f.g. sphalerite due to intermixed pyrrhotite | | | | | | | | |
| | minor c.g. dark grey sphalerite (no magnetism) | | | | | | | | |
| | weak mylonitic development @ 20° near top of section: | | | | | | | | |
| | 364-366 red brown - grey sphalerite contact @ 50° | | | | | | | | |
| | 368 mylonite @ 30°. | | | | | | | | |
| | 369 1" band calc silicate @ 70°. | | | | | | | | |
| | 370 2" band calc silicate @ 70°. | | | | | | | | |
| 370 -373 | Siliceous pegmatite, occasional thin sphalerite/po stringers | | | | | | | | |
| | mylonite-near 370' attitudes of mylonite and sphalerite @60-70° | | | | | | | | |
| 373-383 | Pegmatite | | | | | | | | |
| 383-398 | Variable biotite gneiss altering with 2-6" bands of pegmatite attitudes @ 60° | | | | | | | | |
| | some partial assimilation. | | | | | | | | |
| 398-400 | Mixed pegmatite, siliceous calc silicate | | | | | | | | |
| 400 | END OF HOLE. | | | | | | | | |

Don Michals 211-91

Scale

Geological Plot
& Data

Drill Hole Record



Property Ruddock Creek District Kamloops M.D. /82M-15 Hole No. 8-77-1
 Commenced July 25, 1977 Location F Zone, South Limb Tests at _____ Hor. Comp. _____
 Completed July 26, 1977 Core Size XRT Corr. Dip -90° Vert. Comp. 105'
 Co-ordinates 21, 764.37N; 23, 764.88E True Brg. _____ Logged by R.F. Nichols
 Objective _____ % Recov. 86.7% Date July 26, 1977

Claim

IT #3

T Brg.

Collar Dip

- 90°

Elev.

6941.13

Length 105'

Hole No. Sheet

| Footage From To | Description | Sample No. | Length | Analysis |
|--------------------|--|----------------|--------------|----------|
| 0-7 | Casing through boulders and soil | | | |
| 7-12.5 | coarse grained pegmatite | | | |
| 12.5-13 | massive sphalerite and pyrrhotite with minor calc silicate | 45001 | 0.5' | |
| 13-14 | massive sphalerite and pyrrhotite cut by pegmatite which accounts for about 60-70% of the section now | 45002 | 1.0' | |
| 14-15.5 | Pegmatite with a few stringers and disseminations of sphalerite and pyrrhotite | 43003 | 1.5' | |
| 15.5-16 | massive sphalerite and pyrrhotite cut by minor pegmatite | 45004 | 0.5' | |
| 16-19 | Pegmatite with a few sphalerite/pyrrhotite stringers | 45005 | 3.0' | |
| 19-23 | Rusty, coarse grained pegmatite, trace sulphides | 45006 | 4.0' | |
| 23-24 | Green calc silicates, minor disseminated sulphides, mostly pyrrhotite | 45007 | 1.0' | |
| 24-24.5 | massive sphalerite/pyrrhotite | 45008 | 0.5' | |
| 24.5-25.5 | Mostly pegmatite finer grained, some disseminations and stringers of pyrrhotite, possibly minor sphalerite | 45009 | 1.0' | |
| 25.5-27 | Thin bands (1/4 - 1/2") of massive sphalerite and pyrrhotite in calc silicate | 45010 | 1.5' | |
| 27-37 | Predominantly calc silicate with a few sections containing vague patches of pegmatite, disseminated pyrrhotite is present throughout, with possibly some minor sphalerite | 45011 45012 | 5.0' 5.0' | |
| 37-39 | Coarse grained pegmatite, minor rusty staining | | | |
| 39-42 | mineralized quartzite - disseminated pyrrhotite | | | |
| 42-58 | coarse grained pegmatite - minor erratic rusty stain | | | |
| 58-61.5 | quartz-feldspar biotite gneiss; foliation generally @ 60° to core axis | | | |
| 61.5-65 | coarse grained pegmatite | | | |
| 65-66 | quartz-feldspar biotite gneiss | | | |

R.F. Nichols

11-8-77

Drill Hole Record



| | | | |
|--------------|-----------|-----------|-------------|
| Property | District | Hole No. | F-77-1 |
| Commenced | Location | Tests at | Hor. Comp. |
| Completed | Core Size | Corr. Dip | Vert. Comp. |
| Co-ordinates | | True Brg. | Logged by |
| Objective | | % Recov. | Date |

Claim
T Brg.
Collar Dip
Elev.
Length

| Footage From | To | Description | Sample No. | Length | Analysis |
|--------------|----|--|------------|--------|----------|
| 66-67 | | Leucocratic coarse pegmatite | | | |
| 67-70.5 | | Quartz-feldspar-biotite gneiss | | | |
| 70.5-73 | | predominately calc silicate with vague erratic patches of pegmatite. | | | |
| 63-8.5 | | fine grained pegmatite/granite -2-5% biotite | | | |
| 81.5-89.5 | | alternating bands of biotite gneiss and calc silicate with the calc silicates predominating from | | | |
| 86-89.5 | | | | | |
| 89.5-92.5 | | coarse grained pegmatite | | | |
| 92.5-96 | | calc silicate with thin biotite gneiss bands @ 92.5-92.8 and 94-94.6 minor pyrrhotite in the calc-silicate | | | |
| 96-102.5 | | Coarse grained pegmatite | | | |
| 102.5-104 | | biotite gneiss | | | |
| 104-105 | | calc silicate, minor pyrrhotite | | | |
| | | +105+ END OF HOLE | | | |

Ron Nichols

Hole No. F-77-1 Sheet

Scale

Date: 1977
3 2 28

Drill Hole Record



Property Ruddock Creek District Kamloops M.D./82 M-15 Hole No. F-77-2
 Commenced July 26, 1977 Location F-Zone - South Limb Tests at _____ Hcr. Comp. _____
 Completed July 28, 1977 Core Size XRT Corr. Dip -90° Vert. Comp. 122'
 Co-ordinates 21,740.68; 23,675.78 True Brg. _____ Logged by R.F. Nichols
 Objective _____ % Recov. 62% Date July 28, 1977

Claim

IT #3

T Brg.

Collar Dip -90°Elev. 6943.09Length 122'

| Footage From To | Description | Sample No. | Length | Analysis |
|--------------------|---|---------------|--------|----------|
| 0-1 | Casing | | | |
| 1-2 | Coarse grained pegmatite | | | |
| 2-3.5 | quartz-feldspar-biotite gneiss, foliation @ 40° to core axis | | | |
| 3.5-6 | coarse grained pegmatite, minor rusty staining | | | |
| 6-7.5 | quartz feldspar biotite gneiss | | | |
| 7.5-10 | coarse grained pegmatite, minor rust | | | |
| 10-15 | quartz-feldspar-biotite gneiss 12-12.5 pegmatite | | | |
| 15-45 | coarse grained pegmatite-carcatic rust stains to 41' | | | |
| | 24-24.5 fault gouge - small section of mud. | | | |
| | 31-54 pegmatite now has a pale green color, most likely due to weak argillic alteration of the feldspars. | | | |
| | 46-46.25 fault gouge - 1" of mud recovered - evidence of narrow quartz vein adjacent to the gouge | | | |
| 54-59 | alternating 2" to 8" bands of pegmatite and quartz-feldspar-biotite gneiss, foliation still generally @ 40° to C/A, with the foliation being occasionally crinkled. | | | |
| 71-74 | distinctive interlocking texture of medium sized grains of quartz, feldspar and biotite with segregation of the minerals only poorly developed. | | | |
| 74-77 | dense, highly chloritic rock, biotite also common, as well as porphyroblasts of pale green chlorite(?) | | | |
| 77-83 | coarse to medium grained pegmatite, mostly leucocratic | | | |
| 83-86 | dense chloritic unit, with porphyroblasts like above (74-77) | | | |
| 86-89 | sericitized biotite gneiss - occasionally relict biotite seen grading into sericite. foliation @ 40° to C/A | | | |

Ron Nichols

Scale

30' 1" 50'

Drill Hole Record



Property Ruddock Creek District Kanloops M.A./82M-15 Hole No. F-77-3
 Commenced July 28, 1977 Location F Zone - South Limb Tests at _____ Hor. Comp. _____
 Completed July 30, 1977 Core Size XRT Corr. Dip -90° Vert. Comp. 122'
 Co-ordinates 21,695.38X; 23,649.26E True Brg. _____ Logged by R.F. Nichols
 Objective _____ % Recov. 55% Date July 29-30, 1977

Claim IT #3

T Brg.

Collar Dip

Elev. 6918.80

Length 122'

Hole No. F-77-3 Sheet 1

| Footage From | To | Description | Sample No. | Length | Analysis |
|--------------|-----|--|---------------|--------|----------|
| 0 | 1 | Casing | | | |
| 1 | 6.5 | Pegmatite, rusty, muscovite common 3-3.5 quartz-feldspar-biotite gneiss | | | |
| 6.5 | 12 | Quartz-feldspar-biotite gneiss, foliation @ 40-60° to C/A most common @ 60° | | | |
| 12 | 30 | Pegmatite, rusty-mottled rusty tan 23.5-25 quartz-feldspar-biotite gneiss - coarse mica foliation 10-30° to C/A | | | |
| 30 | 50 | Pegmatite-very pale green-weak argillic alteration (Kaolinization) of the feldspars, the section is dense, featureless with the argillic alteration too weak to "high lite" the feldspars | | | |
| | | 36.5-38 small broken up section of biotite gneiss. 46-49 rusty section. | | | |
| 50 | 83 | Pegmatite, pale green with the feldspar moderately kaolinized (just able to scratch with a knife). The feldspars are now distinctly outlined by the argillic alteration. Drilling in this section was slow and blocky although no gouge/shears have been seen in the core. 52-54 rusty section | | | |
| | | 54-55 narrow section of partially sericitized biotite gneiss. 67-69 medium grained pegmatite phase | | | |
| | | 51, 64, 66 thin pyrrhotite stringers (less 1/10") about 30, 60, 30° to C/A respectively | | | |
| 83 | 90 | sericitized biotite gneiss few remnants of biotite minor sections of pegmatite. | | | |
| 90 | 99 | Pegmatite-moderate to intense Kaolinization of the feldspars | | | |
| 99 | 103 | Sericitized biotite gneiss, minor biotite remnants, few garnets | | | |
| 103 | 106 | Pegmatite | | | |
| 106 | 112 | Mineralized quartzite-banded @ 40-60° to C/A avg 50° 5-10% sulphides as disseminated sphalerite and pyrrhotite 107.5-108 pegmatite feldspars intensely kaolinized. | 106-108 45014 | 2' | |
| | | 25% recovery ----108-112 | 45015 | 4' | |
| 112 | 114 | Pegmatite-badly broken and altered, very poor recovery Some gouge | 45016 | 2' | |

Ron Nichols 21-827

Scale

Colour Plot
& Dip

Drill Hole Record



Property RUDDOCK CREEK District Kamloops M.D. Hole No. F-77-4
 Commenced July 30, 1977 Location F-Zone Tests at _____ Hor. Comp. _____
 Completed July 31, 1977 Core Size XRT Corr. Dip _____ Vert. Comp. _____
 Co-ordinates 21,571.85N; 23,670.95E True Brg. _____ Logged by WSP & SJ.
 Objective _____ % Recov. 81% Date July 31, 1977

Claim
IT #3
T Brg.Collar Dip
-90'

Elev. 6848.35

Length 81'

Hole No. Sheet

| Footage From To | Description | Sample No. | Length | Analysis | |
|--------------------|--|----------------|-------------|----------|-------|
| | | | | Pb | Zn |
| 0 - 1 | Casing | | | | |
| 1 - 3 | Coarse grained rusty pegmatite | | | | |
| 3 - 4 | Siliceous calc silicate rock: possible kaolin alteration | | | | |
| 4 - 8 | Greenish calc-silicate rock with 4" bands NSS at 4.5', 6', 7' est 3% Zn over 4' (NSS - po, sp, gn). | | | | |
| | | 4' - 6' 3% | 450190 2' | 1.3 | 7.8 |
| | | 6' - 8' 3% | 450200 2' | 3.25 | 18.9 |
| 8 - 12 | N.S.S. (po. & sphalerite) est 20% Zn; contains quartz "eyes" | | | | |
| | | 8' - 9.5' 20% | 450210 1.5' | 5.95 | 26.65 |
| | | 9.5' - 11 20% | 450220 1.5' | 5.05 | 24.8 |
| | | 11 - 12 5-8% | 450230 1' | 2.90 | 16.2 |
| 12 - 13 | Band of coarse grained pegmatite, greenish alteration, dissem. po. | | | | |
| | | 12 - 13 Nil | 450240 1' | .04 | .13 |
| 13 - 13.5 | N.S.S. with quartz "eyes" est 20% Zn | | | | |
| | | 13 - 13.5 20% | 450250 0.5' | 3.86 | 19.9 |
| 13.5-24.5 | Altered greenish c.g. pegmatite w/ dissem. po. sphalerite at 21.5 - 22.5 est 3% | | | | |
| | | 13.5-21.5 < 1% | 450260 8' | .04 | .13 |
| | | 21.5-24.5 1% | 450270 3' | .01 | .48 |

Ron Nichols

Scale

Colour Plot
& Dips

Drill Hole Record



Property RUDDOCK CREEK District Kamloops M.D. Hole No. F-77-5
 Commenced July 31, 1977 Location F-Zone South Limb. Tests at Hor. Comp.
 Completed Aug. 1, 1977 Core Size Corr. Dip Vert. Comp.
 Co-ordinates 21,418.37N; 23,545.90E True Brg. Logged by WSP & S.J.
 Objective % Recov. 68% Date Aug. 1, 1977

Claim IT #3
 T Brg.
 Collar Dip -90°
 Elev. 6796.44
 Length 82.5

| Footage From To | Description | Sample No. | Length | Analysis | |
|--------------------|--|---------------|--------|----------|------------|
| | | | | Pb | Zn |
| 0 - 15' | Casing | | | | |
| 1 - 9' | c.g. pegmatite | | | | |
| 9 - 9.5' | quartz biotite gneiss | | | | |
| 9.5-17 | c.g. pegmatite 0-15 may be a boulder | | | | |
| 17 - 19 | quartz biotite gneiss core angle: 50° | | | | |
| 19 - 22 | c.g. pegmatite | | | | |
| 22 - 23 | quartz biotite gneiss core angle: 45° | | | | |
| 23 - 25 | silica rich calc-silicate layer; contains po and sphalerite | est 7% Zn | | | |
| | | 23 - 25 | 450280 | 2' | 2.10 11.30 |
| 25 - 34.5 | mineralized quartzite - foliated; contains po & sphalerite | | | | |
| | core angle: 50° | 25 - 30 1% | 450290 | 5' | .04 .24 |
| | | 30 - 34.5 1% | 450300 | 4.5' | .08 .09 |
| 34.5 - 43.5 | pegmatite with biotite rich sections | | | | |
| 43.5 - 48 | quartz biotite gneiss with muscovite; some sections are altered to sericite; | | | | |
| | pegmatite bands. core angle: 35-40° | | | | |
| 48 - 61 | Rusty c.g. pegmatite / blocky, poor recovery. | | | | |
| 61 - 63.5 | Quartz biotite gneiss with occasional sections altered to sericite. | | | | |
| 63.5- 64 | C.C. grey pegmatite | | | | |
| 64 - 66 | siliceous quartz biotite gneiss with po. and possible sphalerite | | | | |
| | | 64 - 66 | | | |
| | | est nil | 450320 | 2' | .03 .20 |

Don Macdonald

Scale

Colour Plot
& Dps

Drill Hole Record



Property RUDDOCK CREEK District Kamloops M.D. Hole No. T-77-1
 Commenced August 1, 1977 Location T-Zone Tests at Hor. Comp.
 Completed August 3, 1977 Core Size XRT Corr. Dip Vert. Comp.
 Co-ordinates 20,650.33N; 19,894.77E True Brg. Logged by WSP & SJ
 Objective % Recov. 70.1% Date August 3, 1977

Claim
IT #10

T Brg.

Collar Dip

-90°

Elev. 6711.49

Length

119

Hole No.

Sheet 1

| Footage From To | Description | Sample No. | Length | Analysis | |
|--------------------|---|---------------|--------|----------|-------------|
| | | | | Pb | Zn |
| 0 - 1 | Casing | | | | |
| 1 - 12 | C.G. Grey pegmatite with muscovite and small garnets | | | | |
| 12 - 15 | Calc-silicate, medium grained. Some small garnets; becoming more biotite rich near end of section (14'-15') minor po. | | | | |
| 15 - 21 | C.G. Grey pegmatite with muscovite and rusty sections 20'-21' | | | | |
| 21 - 31 | F.G. calc-silicate with variable biotite content increasing towards end of section. Minor po. throughout and locally garnets. - at 27' c.g. calc-silicate section $\sim 6''$ core angle 22' = 60° 30' = variable $0^\circ \rightarrow 20^\circ$ - 2 narrow pegmatite sections (2") at 28.5 and 30' | | | | |
| 31 - 50 | Quartz biotite gneiss with numerous minor peg. bands $\frac{1}{2}'' \rightarrow 2''$ wide also 40' \rightarrow 42.5' c.g. grey pegmatite core angle 35' - 50° 48' - 60° | | | | |
| 50 - 63 | c.g. grey pegmatite | | | | |
| 63 - 81 | Quartz mica gneiss (biotite > muscovite) generally fine grained. - 72.5 \rightarrow 73' muscovite rich mud recovered - possible grind? - very biotite rich bands. (1" - 2") at 70' and 78' core angle 81' - 60° | | | | |
| 81' - 99' | calc-silicate gneiss; at 83' - 3" band N.S.S. (C.G. Sphalerite est 15% Zn) | | | | |
| | | 81 - 82.5 | 1% | 450340 | 1.5 .06 .12 |

Don Mitchell

Drill Hole Record



Property RUDDOCK CREEK District _____ Hole No. F-77-5
 Commenced _____ Location _____ Tests at _____ Hor. Comp. _____
 Completed _____ Core Size _____ Corr. Dip _____ Vert. Comp. _____
 Co-ordinates _____ True Brg. _____ Logged by _____
 Objective _____ % Recov. _____ Date _____

| Footage From To | Description | Sample No. | Length | Analysis | |
|--------------------|--|------------------------|--------|----------|---------|
| | | | | Pb | Zn |
| 66 - 68 | Calc-silicate gneiss with po. | 66 - 68 est nil 450320 | 2 | .03 | .20 |
| 68 - 79.5 | calc-silicate bands in qtz. biotite gneiss | | | | |
| 79.5 - 82 | quartz biotite gneiss core angle 40° | | | | |
| 82 - 82.5 | c.g. white pegmatite | | | | |
| | END OF HOLE | | | | |
| | | | | 0-15 | boulder |
| | | | | 15-20 | 2.5 |
| | | | | 20-25 | 3 |
| | | | | 25-30 | 4.5 |
| | | | | 30-35 | 4.5 |
| | | | | 35-40 | 4 |
| | | | | 40-45 | 3.5 |
| | | | | 45-50 | 2.5 |
| | | | | 50-55 | 1.5 |
| | | | | 55-60 | 1 |
| | | | | 60-65 | 4.5 |
| | | | | 65-70 | 4.5 |
| | | | | 70-75 | 4.5 |
| | | | | 75-80 | 4.5 |

Ron Melillo

Hole No. Sheet

Drill Hole Record



| | | | | |
|--------------|---------------|-----------|-------------|--------|
| Property | RUDDOCK CREEK | District | Hole No. | T-77-1 |
| Commenced | Location | Tests at | Hor. Comp. | |
| Completed | Core Size | Corr. Dip | Vert. Comp. | |
| Co-ordinates | | True Brg. | Logged by | |
| Objective | | % Recov. | Date | |

Collar Dip - 90°

Length 119

| Footage From | To | Description | Sample No. | Length | Analysis Pb Zn |
|--------------|-------------|--|------------|--------|----------------|
| | 82.5 - 83.5 | est 2% Zn | 450330 | 2 | 1.458.25 |
| | 83.5 - 85.5 | pegmatite | 450350 | 2 | 0.020:04 |
| | 85.5 - 86.5 | N.S.S. fine grained po & brownish sphalerite | 450360 | 1 | 0.9218.8 |
| | 86.5 - 87 | pegmatite | 450370 | 0.5 | .04 .33 |
| | 87 - 89 | calc-silicate | 450380 | 2 | .02 .14 |
| | 89 - 92 | calc-silicate | 450390 | 3 | .06 .35 |
| | 92 - 99 | calc-silicate (poor recovery; 3' of core) | 450400 | 8 | .08 .45 |
| 99 - 104 | | quartz biot gneiss; dissem. po. throughout (5%) 1/2" band sphalerite at 100.5' | | | |
| | | | 450410 | 1' | .06 2.53 |
| 104 - 105 | | Calc-silicate gneiss | 450378 | 1' | .04 0.36 |
| 105 - 109 | | Quartz biotite gneiss core angle 108' - 60° | | | |
| 109 - 119 | | c.g. pegmatite with some 2' Qtz. biot. gneiss bands at top of section. | | | |
| -119- | | END OF HOLE | | | |

FOR CORE RECOVERY BY EACH 5' SECTION SEE OVER:

Ron Mcintosh

Scale

Colour of Top
& Dip

Drill Hole Record



Property RUDDOCK CREEK District Kamloops M.D. Hole No. T-77-2
 Commenced August 3, 1977 Location T-ZONE Tests at Hor. Comp.
 Completed August 4, 1977 Core Size XRT Corr. Dip Vert. Comp.
 Co-ordinates 20,764.69N; 19,991.96E True Brg. Logged by WSP & SJ
 Objective % Recov. 83.1% Date August 6, 1977

Claim IT #10

T Brg.

Collar Dip -90°

Elev. 6614.67'

Length 93.5'

Hole No. Sheet

| Footage From To | Description | Sample No. | Length | Analysis | |
|--------------------|--|-----------------------------|--------|----------|-----------|
| | | | | Pb | Zn |
| 0 - 2 | Casing | | | | |
| 2 - 10 | Quartz biotite gneiss with bands (2"-4") of pegmatite and calc-silicate | | | | |
| 10 - 14' | c.g. grey pematite with muscovite | | | | |
| 14 - 28 | Quartz biotite gneiss with some sections altered - possibly sericite or chlorite at 23' - contorted folding in biotite rich laminae. | | | | |
| 28 - 30 | m.g. grey pematite with f.g. biotite. | | | | |
| 30 - 36' | Mineralized slightly calcareous quartzite with calcite bands at 33.5' (4") and 35' - 36' | | | | |
| | | 30 - 32' est 1% Zn | 450420 | 2' | .01 2.09 |
| | | 32' - 33' est 8% Zn | 450430 | 1' | 1.92 9.4 |
| | | 33' - 36' est 1% Zn | 450440 | 3' | 0.13 0.25 |
| | | 36' - 38.5' est 12% Zn | 450450 | 2.5' | 2.80 15.7 |
| 36' - 38.5' | Near solid sulfide with quartz augen | | | | |
| 38.5' - 53' | Pegmatite with sections of either siliceous quartz biotite gneiss (partly garnitized?) or micaceous quartzite with mineralized section at 45.5' - 46.5' (altered quartz biotite gneiss?) | | | | |
| | | 45.5' - 46.5' est 2% Zn Pb | 450460 | 1' | .54 4.2 |
| | | 46.5' - 53' est nil | 450470 | 6.5' | .03 .19 |
| 53' - 56.5' | Mineralized calc-silicate | | | | |
| | | 43' - 56.5' est 1% Zn | 450480 | 3.5' | .10 .62 |
| 56.5' - 58.5' | Sulfide rich section - sphal, visible galena, pyrrhotite with quartz augen | | | | |
| | | 56.5' - 58.5' est 10% Zn Pb | 450490 | 1.5' | 3.94 16.2 |
| 58.5' - 63.5' | Fine grained laminated altered? calc silicate gneiss - slightly mineralized with sphal & po. | | | | |
| | | 58.5' - 60.5' est 1% Zn | 450500 | 2' | .10 .30 |
| | | 60.5' - 63.5' est < 1% Zn | 453510 | 3' | .18 0.80 |

Don Nichols 2111

Drill Hole Record



Property RUDDOCK CREEK District _____ Hole No. T-77-2
 Commenced _____ Location _____ Tests at _____ Hor. Comp. _____
 Completed _____ Core Size _____ Corr. Dip _____ Vert. Comp. _____
 Co-ordinates _____ True Brg. _____ Logged by _____
 Objective _____ % Recov. _____ Date _____

| Footage | | Description | Sample No. | Length | Analysis | | Collar Dip | Elev. | Length |
|---------|-------|---|------------|--------|----------|--------|------------|-------|--------|
| From | To | | | | Claim | T Brg. | | | |
| 63.5' | 69.5' | Pegmatite | | | 2-5' | 2' | | | |
| 69.5' | 70.5' | Calc-silicate - coarse grained with granite | | | 5-10' | 2' | | | |
| 70.5' | 71.5' | Pegmatite | | | 10-15' | 5' | | | |
| 71.5' | 90' | Quartz biotite gneiss with pegmatite sections - at 75' -greenish chloritic? vein 30° to core axis - core angle 60° to C/A | | | 15-20' | 3.5' | | | |
| | | | | | 20-25' | 3.5' | | | |
| | | | | | 25-30' | 3.5' | | | |
| 90 | 93.5 | Calc-silicate with pyrrhotite | | | 30-35' | 4.5' | | | |
| | | | | | 35-40' | 5' | | | |
| -103.5- | | END OF HOLE | | | 40-45' | 5' | | | |
| | | | | | 45-50' | 4' | | | |
| | | | | | 50-55' | 5' | | | |
| | | | | | 55-60' | 4' | | | |
| | | | | | 60-65' | 5' | | | |
| | | | | | 65-70' | 3.5' | | | |
| | | | | | 70-75' | 3' | | | |
| | | | | | 75-80' | 5' | | | |
| | | | | | 85-90' | 5' | | | |
| | | | | | 90-93.5' | 3' | | | |

Core Recovery:

Ron Nichols

Sheet 2 Hole No.

Scale
Colour Plat
& Dips

Drill Hole Record



Property RADDOK CREEK District Kamloops M.D. Hole No. T-77-3
 Commenced August 4, 1977 Location T Zone Tests at _____ Hor. Comp. _____
 Completed August 5, 1977 Core Size XRT Corr. Dip _____ Vert. Comp. _____
 Co-ordinates 20,843.59N; 20,057.75E True Brg. _____ Logged by WSP & SJ
 Objective _____ % Recov. 76.2% Date August 6, 1977

Claim IT #10
T Brg.
Collar Dip -90°
Elev. 6582.31'
Length 103'
Hole No. _____ Sheet _____

| Footage From To | Description | Sample No. | Length | Analysis interval ft. recovered |
|--------------------|---|---------------|--------|---|
| 0 - 2 | C.G. white pegmatite with muscovite | | | CORE RECOVERY 0- 5' 4 |
| 2 - 21 | F.G. greenish calc-silicate? with garnets, biotite and probable amphibole. - some sections of garnetiferous quartz biotite gneiss - core angle at 13' - 40° to C/A - core angle at 7' - 50° to C/A | | | 5- 10' 4 10- 15' 4.5 15- 20' 3.5 20- 25' 4.5 |
| 21 - 29' | Good garnetiferous quartz biotite gneiss - core angle 65° to C/A | | | 25- 30' 4.5 30- 35' 5 |
| 29 - 34' | Medium-fine grained biotite pegmatite - some biotite-rich sections partly assimilated? quartz biotite gneiss (garnetiferous) | | | 35- 40' 4 40- 45' 4.5 |
| 34'-37' | garnetiferous quartz biotite gneiss - core angle 60° - 65' to C/A | | | 45- 50' 4.5 50- 55' 3.5 |
| 37 - 43' | C.G. white pegmatite | | | 55- 60' 4.0 |
| 43 - 48.5' | Quartz-biotite gneiss-throughout section biotite is altering to chlorite? - at 48' - 6' pegmatite band. | | | 60- 65' 4.5 65- 70' 3 |
| 48.5 - 50' | C.G. grey pegmatite | | | 70- 75' 3 |
| 50' - 63' | Quartz biotite gneiss with altered greenish biotite (chlorite?) - at 58' convoluted flakes of mica - core angle appears ~ 0° -55'-56' - c.g. pegmatite | | | 75- 80' 4 80- 85' 5 85- 90' 3 90- 95' 4 |
| 63 - 71.5' | C.G. Pegmatite | | | 95-100' 3.5 100-103' 3 |

Ron Nichols

Drill Hole Record



| | | | | |
|--------------|---------------|-----------|-----------|-------------|
| Property | RUDDOCK CREEK | District | Hole No. | T-77-3 |
| Commenced | | Location | Tests at | Hor. Comp. |
| Completed | | Core Size | Corr. Dip | Vert. Comp. |
| Co-ordinates | | | True Brg. | Logged by |
| Objective | | | % Recov. | Date |

| Footage From To | Description | Sample No. | Length | Analysis | | Claim | T Brg. | Collar Dip | Elev. | Length | Hole No. | Sheet |
|--------------------|---|------------|--------|--------------------------|--------|-------|--------|------------|-------|--------|----------|-------|
| | | | | Pb | Zn | | | | | | | |
| 71.5' - 75' | Mineralized calc-silicate - sphal, po, and minor galena - core angle ~ 10° to C/A | | | | | | | | | | | |
| | | | | 71.5' - 75' est 7% Zn Pb | 453520 | 3.5' | 2.00 | 9.7 | | | | |
| 75' - 77' | Near solid sulfide with quartz augen - core angle 60° to C/A | | | | | | | | | | | |
| | | | | 75' - 77' est 8% Zn | 453530 | 2.0' | 3.15 | 15.00 | | | | |
| 77' - 87' | Mineralized calc-silicate - limey in places - with po, sphal & minor galena. - whole section appears to be undergoing alteration to chlorite? sericite? - garnetiferous from 86' - 87' - core angle -50° to C/A - m.g. pegmatite sections 81' - 82.5' to 85.5' - 86' | | | | | | | | | | | |
| | | | | 77'-81' est 1% Zn | 453540 | 4.0' | .08 | .31 | | | | |
| | | | | 81'-82.5' est nil | 453550 | 1.5' | .05 | .06 | | | | |
| | | | | 82.5-85.5' est 1% Zn | 45356 | 3.0' | .06 | .26 | | | | |
| | | | | 85.5'-86' est nil | 45357 | 0.5' | .04 | .06 | | | | |
| | | | | 86' - 87' est 1% Zn | 453580 | 1.0' | .04 | .57 | | | | |
| 87' - 103' | C.G. Pegmatite with thin 2"-4" bands of calc-silicate to quartz biotite gneiss in 87'-89' - from 99-103 - pegmatite appears to have undergone some strain - mylonitization? - also appears to possibly have become brecciated and recemented | | | | | | | | | | | |
| - 103- | END OF HOLE | | | | | | | | | | | |

Ron Michals

Scale

Colour
& C.D.S.

Drill Hole Record



Property RUDDOCK CREEK District Kamloops M.D. Hole No. T-77-4
 Commenced August 5, 1977 Location T-ZONE Tests at _____ Hor. Comp. _____
 Completed August 7, 1977 Core Size XTR Corr. Dip _____ Vert. Comp. _____
 Co-ordinates 20,973.49N; 20,088.54E True Brg. _____ Logged by S.J. JURAS
 Objective _____ % Recov. 82.2% Date August 7, 1977

Claim
IT #10

T Brg.

Collar Dip
-90°

Elev. 6519.41

Length 119'

| Footage From To | Description | Sample No. | Length | Analysis |
|--------------------|--|---------------|--------|----------|
| 0 - 4' | Casing | | | |
| 4'-24' | c.g. pegmatite with fine coarse grained muscovite and small garnets - rusty section throughout. | | | |
| 24'-36.5' | Garnetiferous quartz biotite gneiss - from 24'-27 and 34'-25' appears to be quite altered with all the biotite replaced by chlorite? - pegmatite bands 38'-38.5, 33'-34 plus a few 2"-3" bands throughout the section. - foliation at 27.5 - 60°-65° to C/A at 30' - 45° to C/A at 35' - 65° to C/A | | | |
| 36.5'-40.5' | Dense dark green calc-silicate - almost all amphibole (amphibolite) - liney throughout section with 3" calcite band at 37.5' - few garnet along with scattered, p.o. | | | |
| 40.5'-44.0' | Quartz biotite gneiss - altered throughout section - garnetiferous near end. | | | |
| 44.0-45.0' | Pegmatite | | | |
| 45.0'-51.5' | Dense dark green calc-silicate (amphibolite) - same as previously encountered unit but much more garnetiferous and more po - also quartz veinlets common - roughly follow foliation. - foliation - 60° to C/A | | | |
| 51.5-65' | c.g. pegmatite with quartz biotite gneiss sections at 52'-53', 59.5'-60.5' and 61' - 61.5' | | | |

Ron Nichols 1-642

Drill Hole Record



| | | | | | |
|--------------|----------------|-----------|--------------|-----------|-------------|
| Property | RUDDOCK CREEK | District | Kamloops MD. | Hole No. | T-77-4 |
| Commenced | August 5, 1977 | Location | | Tests at | Hor. Comp. |
| Completed | August 7, 1977 | Core Size | | Corr. Dip | Vert. Comp. |
| Co-ordinates | | True Brg. | | Logged by | |
| Objective | | % Recov. | | Date | |

| Footage From To | Description | Sample No. | Length | Analysis | | Claim | T Brg. | Collar Dip | Elev. | Length | Hole No. | Sheet |
|--------------------|---|---------------|--------|----------|------|-------|--------|------------|-------|--------|----------|-------|
| | | | | Pb | Zn | | | | | | | |
| 65 - 82.5' | Garnetiferous quartz biotite gneiss with chlorite alteration throughout section - also contorted biotite layers and 'stretched' garnets in places (65', 67', 71', 75') foliation at 65.5' - 50° to C/A, at 77.0' 65° to C/A and at 81.0' - 55° to C/A | | | | | | | | | | | |
| 82.5 - 83 | Pegmatite | | | | | | | | | | | |
| 83 - 88 | Dissem. Sphal and po in limey calc silicate becoming f.g. massive with quartz augen at 86.5' | | | | | | | | | | | |
| | - est 8% Zn | 83.0' - 84.0' | | 45350 | | | | | | | | |
| | | 84.0' - 86.0' | | 45360 | 1' | 3.10 | 14.70 | | | | | |
| | | 86.0' - 87.0' | | 45361 | 2' | 2.70 | 14.00 | | | | | |
| | | 87.0' - 88.0' | | 45362 | 1' | 2.10 | 10.20 | | | | | |
| 88 - 94.5 | mineralized calc-silicate with abundant garnet - est <1% Zn | | | | | | | | | | | |
| | | 88.0' - 91.0' | | 45363 | 3' | 0.70 | 0.48 | | | | | |
| | | 91.0 - 94.5' | | 45364 | 3.5' | 0.07 | 0.49 | | | | | |
| 94.5' - 98 | Mineralized quartzite with scattered graphite - near massive to massive f.g. sphal & po at 94.5' and 97.5' - 98' - stringers of sphal and po at 96.0' - sections become more calcareous near end - pegmatite - 96.0 - 96.5' | | | | | | | | | | | |
| | - est 7% Zn | 94.5' - 96' | | 45365 | 1.5' | 0.64 | 4.80 | | | | | |
| | | 96 - 97 | | 45366 | 1' | 0.12 | 0.30 | | | | | |
| | | 97 - 98 | | 45367 | 1' | 2.3 | 10.70 | | | | | |

Ben Nichols

Drill Hole Record



Property RUDDOCK CREEK District _____ Hole No. T-77-4
 Commenced _____ Location _____ Tests at _____ Hor. Comp. _____
 Completed _____ Core Size _____ Corr. Dip _____ Vert. Comp. _____
 Co-ordinates _____ True Brg. _____ Logged by _____
 Objective _____ % Recov. _____ Date _____

Claim _____ T Brg. _____ Collar Dip _____ Elev. _____ Length _____ Hole No. _____ Sheet _____

| Footage From | To | Description | Sample No. | Length | Analysis | |
|--------------|------|---|------------|--------|----------|------|
| | | | | | Pb | Zn |
| 98' | 100' | Siliceous quartz biotite gneiss with po and possible sphal (min. micaceous quartzite) - garnetiferous | | | | |
| | | - est 1% Zn | 45368 | 2' | 0.09 | 0.45 |
| 100' | 103' | pegmatite | 45369 | 3' | 0.03 | 0.06 |
| 103' | 108' | quartz - biotite gneiss with sphal & po mineralization at 106.5 and 108 - foliation 35° to C/A | | | | |
| | | - est trace | 45370 | 5' | 0.03 | 0.23 |
| 108' | 119' | Mineralized garnetiferous calc silicate - mostly po but sphal is present - 1/2" band mostly sphal at 110.5' | | | | |
| | | -pegmatite at 111' - 112.5' and 117' - 118' | | | | |
| | | -foliation at 113.5' - 30° to C/A | | | | |
| | | 118' - 60° to C/A | 45371 | 5' | 0.02 | 0.40 |
| | | | 45372 | 6' | 0.02 | 0.22 |
| - 119' | | END OF HOLE | | | | |

Ben Nichols

Drill Hole Record



Property RUDDOCK CREEK District Kamloops M.D. Hole No. T-77-5
 Commenced August 7, 1977 Location T-Zone Tests at _____ Hor. Comp. _____
 Completed August 8, 1977 Core Size NPT Corr. Dip _____ Vert. Comp. _____
 Co-ordinates 21,047.35N; 20,129.57E True Brg. _____ Logged by S.J. JURAS
 Objective _____ % Recov. 55.7% Date August 8, 1977

Claim
IT #10

T Brg.

Collar Dip
90°Elev.
6494.99Length
105'

Hole No. Sheet 1

| Footage From To | Description | Sample No. | Length | Analysis | |
|--------------------|--|---------------|--------|----------|-----------|
| | | | | Pb | Zn |
| 0 - 9 | Quartz biotite gneiss with chloritic alteration - 2"-4" pegmatite bands throughout section - foliation 70° to C/A | | | | |
| 9 - 48' | Heavily altered c.g. pegmatite with quartz biotite gneiss band at 40' - 41' - feldspar appears to be strongly kaolinitized in altered areas. - minor po throughout section | | | | |
| 48 - 49.5 | Dense green garnetiferous calc silicate (garnetiferous amphibolite) - minor po | | | | |
| 49.5' - 63 | Quartz biotite gneiss with pegmatite bands - foliation 55° to C/A | | | | |
| 63 - 66.5' | Coarse actinolite with biotite | | | | |
| 66.5 - 70' | Siliceous quartz biotite gneiss (micaceous quartzite) grading into quartzite (graphitic) po with possible sphal. | | | | |
| | | 66.5' - 70' | 45373 | 3.5' | 0.02 0.04 |
| 70' - 29' | Mineralized sections - sphal, po and minor gal. - massive sections 70'-73' & 73.5' - 74' - rest of section slightly micaceous (graphitic) quartzite with dissem. sphal & po. - foliations at 74.0' - 25° to C/A 77.0' - 50° to C/A - from 75.0' - 77.0' pegmatite min. with po. - rest of section - 6% Zn | | | | |

Ben Nichols

Drill Hole Record

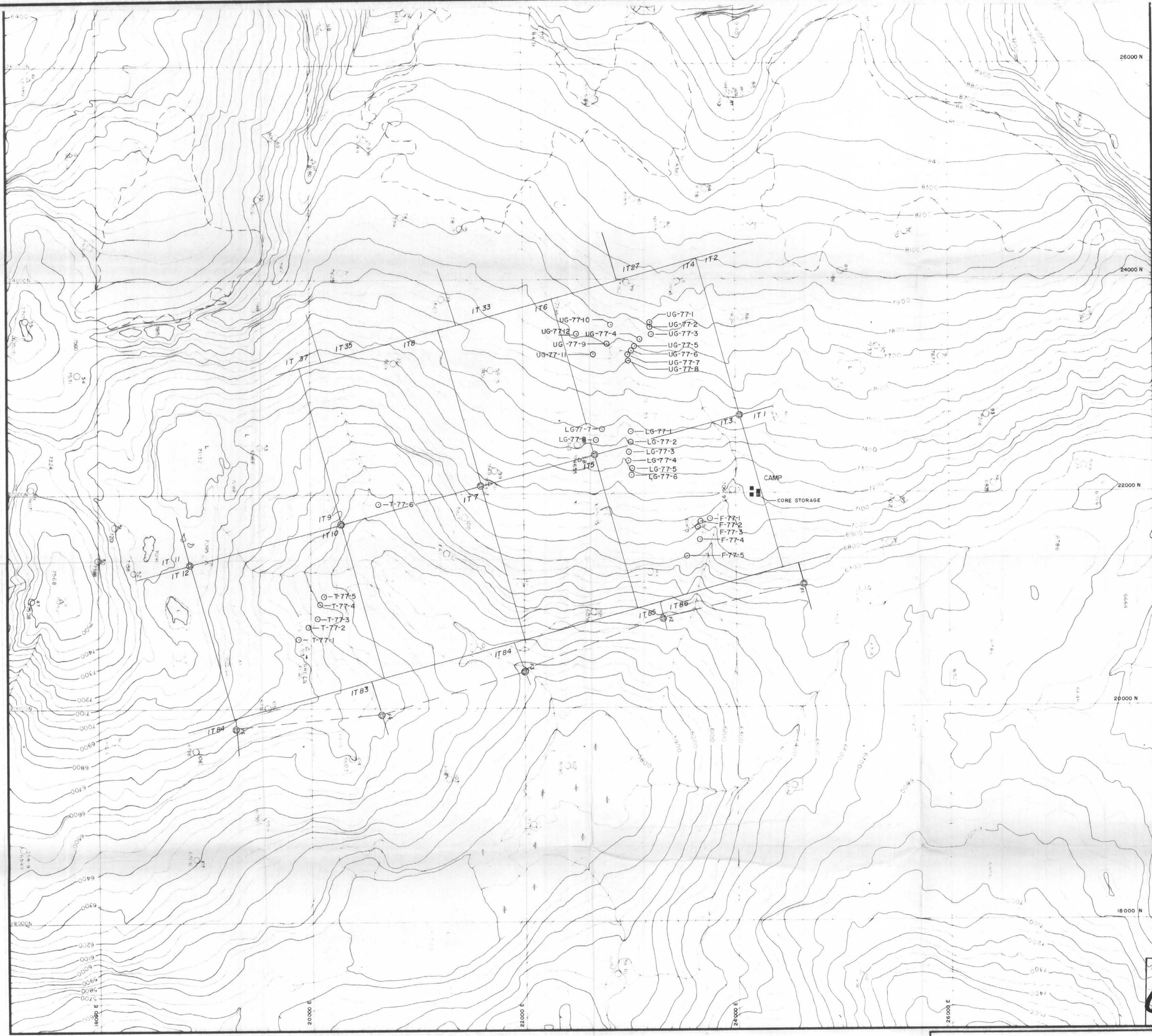


| | | | | | |
|--------------|---------------|-----------|--|-------------|--------|
| Property | RUDDOCK CREEK | District | | Hole No. | T-77-5 |
| Commenced | | Location | | Tests at | |
| Completed | | Core Size | | Hor. Comp. | |
| Co-ordinates | | | | Vert. Comp. | |
| Objective | | | | Logged by | |
| | | | | Date | |

Claim
T Brg.
Collar Dip
Elev.
Length

| Footage From To | Description | Sample No. | Length | Analysis | |
|--------------------|--|------------|--------|----------|------------|
| | | | | Pb | Zn |
| | | 70 - 72 | 45374 | 2' | 3.37 17.00 |
| | | 72 - 74 | 45375 | 2' | 1.22 5.50 |
| | | 74 - 76 | 45376 | 2' | 0.49 3.00 |
| | | 76 - 79 | 45377 | 3' | 0.03 1.01 |
| 79 - 80 | Pegmatite | | | | |
| 80 - 86.5 | Quartz biotite gneiss with 1"-2" pegmatite bands - foliation ~ 55° to C/A | | | | |
| 86.5 - 105 | c.g. pegmatite with partially assimilated quartz biotite gneiss at 103' - 105' | | | | |
| | END OF HOLE | | | | |

Ron Nichols



MINERAL RESOURCES BRANCH
ASSESSMENT REPORT
6625
NO.

82M/15

| | |
|-------------------|-------------------|
| Drawn by: U.S.P. | Traced by: |
| Revised by: _____ | Revised by: _____ |
| _____ | _____ |
| _____ | _____ |

DIAMOND DRILL HOLE LOCATIONS
RUDDOCK CREEK 1977

Scale: 1" = 400' Date: OCT. / 77

Plate: RUD 77-2