

# GM 50477

1990 SUMMARY REPORT, RAGLAN PROPERTY

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Énergie et Ressources  
naturelles

Québec 

FALCONBRIDGE LIMITEE

Raglan Property  
PN 718

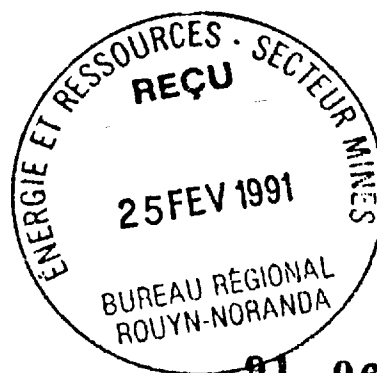
Ungava, Quebec  
NTS 35G/9, 35H/11, 35H/12

1990 Summary Report

Michel Dufresne  
February, 1991

14 MAR 91

|                                          |              |
|------------------------------------------|--------------|
| Ministère de l'Énergie et des Ressources |              |
| Division des données géoscientifiques    |              |
| DATE                                     | 20 AOUT 1991 |
| NO G.M.                                  | 050477       |



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## RESUME

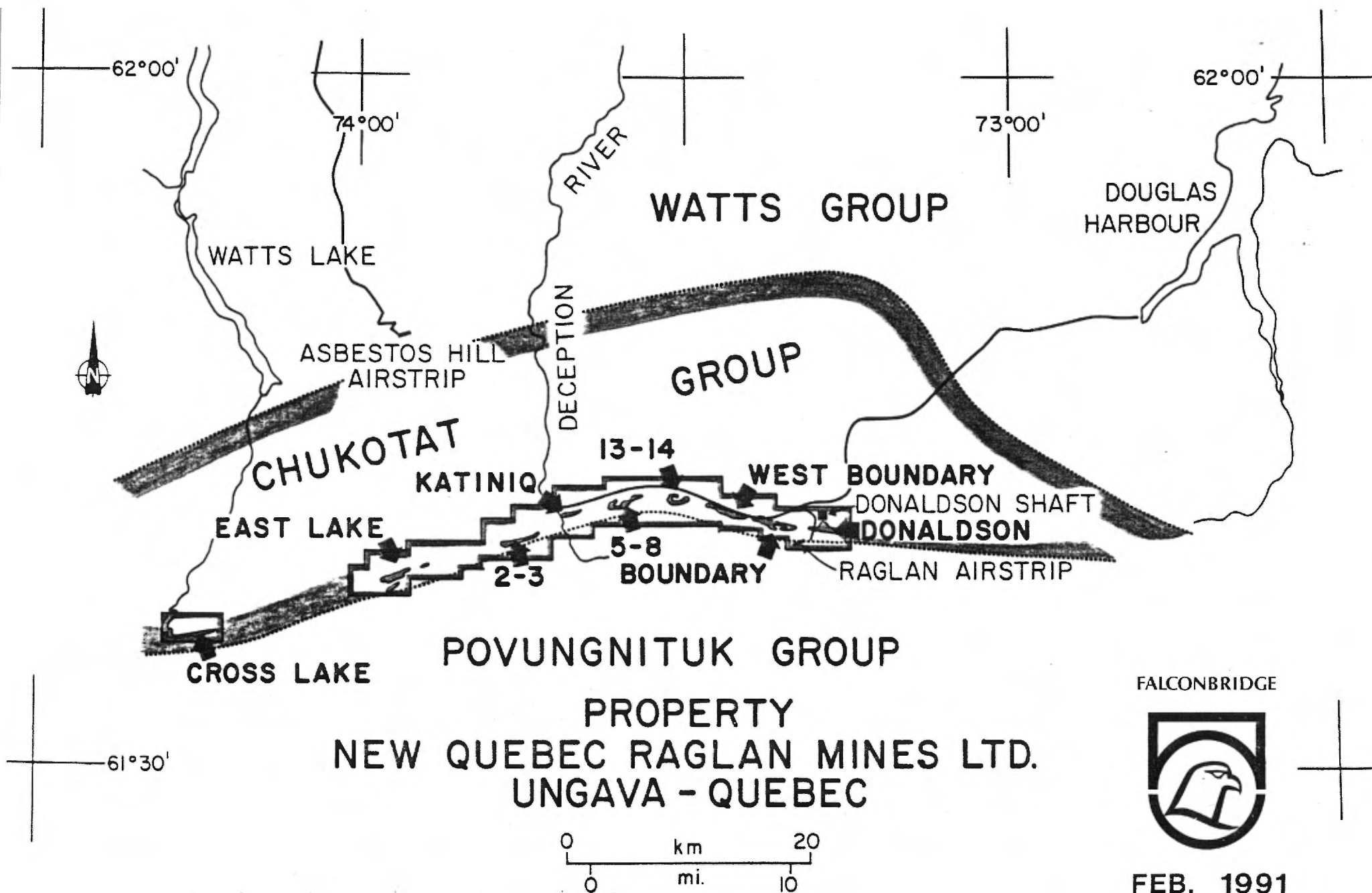
The Raglan property consists of 973 claims in the Ungava peninsula of Northern Quebec. The property is located approximately 1,700 kilometres north of the city of Montreal.

Hundred and twenty-three holes for a total of 26,785.10 metres (87,877.62 feet) were drilled on the property in 1990, with goals of discovering new mineralized zones or increase potential tonnage of existing ones.

Mag, max-min, and seismic reflexion were also conducted on the property during the summer months.



FEB. 1991



FALCONBRIDGE



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## **Introduction:**

### **1.1 Location and Access:**

The Raglan property is located in the Ungava peninsula some 1,700 kilometres north of Montreal, Quebec. The N.T.S. sheets are 35G/9, 35H/11 and 35H/12. Latitude 61°35'-61°42' and longitude 73°15'-74°19' locate the property.

Access to the Raglan camp is by charter air craft from Iqaluit N.W.T. or Kuujjuaq Quebec. Local access from Donaldson to Katiniq is either by ground vehicle or helicopter; west of Katiniq to Cross Lake is by helicopter. Access by sea to Douglas Harbour is some 40 kilometres by road away from the main camp.

### **1.2 Property:**

The property consists of 973 (15,568 ha.) mining claims. La Société Minière Raglan du Québec Limitée is a wholly owned (100%) subsidiary of New Quebec Raglan Mines Limited. Falconbridge Limited holds 100%\* interest in N.Q.R.M. Limited as of October, 1989 (\*subject to regularoty approval).

### **1.3 History:**

From 1957 until 1988, 169,676 metres of surface drilling (1,026 holes) was done on the property. A Kentinq airborne EM survey, Aerodat magnetic survey and an Aerodat HEM and VLF-EM survey were also completed. A complete geological mapping program was also completed in 1981-82.

From 1967 to 1970 a 924 foot three compartment shaft was sunk at Donaldson with stations developed at 350, 525, 700 and 875 levels. At the 700 foot level, 4,393 feet of drift and cross cuts were excavated and 115 holes for a total of 13,304 metres (43,650 feet) were drilled underground.

No work was done on the property from 1982 until 1988.

## **2 - Regional Geology:**

The Raglan property is located in the eastern part of the Cape Smith Belt, along the contact between the Povungnituk and Chukotat groups.

The Povungnituk group consists of sedimentary sequences of quartzites, shales and dolomites overlain by a volcanosedimentary package of tholeiitic basalts.

The Chukotat group consists of a series of komatiitic basalts which overly the Povungnituk group.

### 3 - Property Geology:

Important Ni-Cu sulphide mineralization is associated with nine dunitic peridotite intrusions which occupy a slightly arcuate E-W trend of 55 kilometres. The intrusions are located at or close to the Povungnituk-Chukotat contact, often partially within sediments and are considered to be late-stage, near surface sills or feeder dykes. There is considerable variation in the size, shape and structural details, however the nine intrusions are sulphide-rich. From west to east these nine sills are known as: 1) Cross Lake 2) East Lake 3) 2-3 4) Katinik 5) 5-8 6) 13-14 7) West Boundary 8) Boundary and 9) Donaldson.

### 4 - 1990 Program:

#### 4.1 Preparation and Logistics:

Preparation work for the season's drilling campaign involved a number of parameters. From helicopter to aircraft support, radio communication, food requirements, achievement by boat of material and drills etc., all required handling before we could move to the Raglan camp.

#### 4.2 Diamond Drilling:

From July 8th until August 23rd, 123 holes were drilled for a total of 26,785.10 metres (87,877.62 ft). These holes were drilled at zone #2, #3, Katinik and Donaldson

Six drill rigs, contracted from Bradley Bros. of Rouyn-Noranda, Quebec were utilized. Three of them were already on site, the others were either flown in or brought in by boat.

#### 4.3 Geophysics:

From July 17th to August 10th, 1990, a total of 61.1 kilometres electromagnetic (H.E.M.) survey was conducted using an Apex Parametrics Maxmin I instrument. A total of 86.9 kilometres was covered by a magnetic survey using the EDA Omni-IV proton precession instrument.

The purpose of the surveys was to locate and detail bedrock conductors previously identified by an airborne E.M. survey and try to pin point the footwall contact near surface.

Rouyn-Noranda Office

RAGLAN PROPERTY  
DIAMOND DRILLING SUMMARY

October 1990

| PROJECT \ YEAR           | 1957                   | 1958                   | 1959                    | 1960                    | 1961                    | 1962                    | 1963                    | 1964                    | 1965                    | 1966                     | 1967                     | 1968                     | 1969                      | 1970                      | 1981                      | 1982                      | 1989                   | 1990                    | 1991 | Total                     |
|--------------------------|------------------------|------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|--------------------------|--------------------------|--------------------------|---------------------------|---------------------------|---------------------------|---------------------------|------------------------|-------------------------|------|---------------------------|
| CROSS LAKE               | 53 holes<br>2,236.4 m  |                        |                         | 42 holes<br>0,226.1 m   | 17 holes<br>3,406.7 m   | 83 holes<br>18,870.2    |                         |                         |                         |                          |                          |                          |                           |                           |                           | 3 holes<br>463.8 m        | 5 holes<br>1,225.8 m   |                         |      | 203 holes<br>31,430.8 m   |
| EAST LAKE                |                        |                        |                         |                         |                         |                         |                         |                         |                         |                          |                          |                          |                           |                           |                           | 5 holes<br>619.4 m        | 7 holes<br>1,220.1 m   |                         |      | 12 holes<br>1,839.6 m     |
| 2 ZONE                   | 8 holes<br>879.6 m     |                        |                         |                         | 5 holes<br>834.8 m      |                         |                         |                         |                         |                          |                          |                          |                           | 29 holes<br>5,960.9 m     |                           | 2 holes<br>243.2 m        | 2 holes<br>877.6 m     | 14 holes<br>3,822.1 m   |      | 61 holes<br>12,206.2 m    |
| 3 ZONE                   | 3 holes<br>336.3 m     |                        |                         |                         | 7 holes<br>1,409.7 m    |                         |                         |                         |                         |                          |                          |                          |                           | 30 holes<br>7,362.2 m     |                           | 3 holes<br>370.9 m        | 3 holes<br>805.0 m     | 21 holes<br>4,227.4 m   |      | 67 holes<br>14,513.6 m    |
| KATINGQ                  | 18 holes<br>794.3 m    |                        |                         |                         |                         |                         |                         | 18 holes<br>2,328.7 m   | 18 holes<br>2,273.8 m   | 29 holes<br>4,482.7 m    | 43 holes<br>6,800.3 m    | 38 holes<br>6,932.6 m    | 54 holes<br>9,563.5 m     | 39 holes<br>7,866.0 m     |                           | 1 hole<br>122.8 m         | 8 holes<br>2,722.6 m   | 74 holes<br>15,906.6 m  |      | 340 holes<br>67,702.7 m   |
| KATINGQ UNDERCUT         |                        |                        |                         |                         |                         |                         |                         |                         |                         |                          |                          |                          |                           |                           |                           |                           |                        |                         |      |                           |
| 5-6 ZONE                 | 11 holes<br>363.7 m    |                        |                         |                         |                         |                         |                         |                         |                         | 3 holes<br>672.1 m       |                          |                          |                           | 48 holes<br>11,000.2 m    |                           | 5 holes<br>617.2 m        | 3 holes<br>613.0 m     |                         |      | 71 holes<br>13,186.2 m    |
| 13-14 ZONE               |                        |                        |                         |                         |                         |                         |                         |                         |                         |                          |                          |                          |                           |                           |                           | 2 holes<br>248.6 m        | 3 holes<br>640.1 m     |                         |      | 5 holes<br>786.7 m        |
| WEST BOUNDARY<br>(15-16) |                        |                        |                         |                         |                         |                         |                         |                         |                         |                          |                          |                          |                           | 3 holes<br>526.1 m        |                           | 4 holes<br>491.3 m        | 5 holes<br>968.0 m     |                         |      | 12 holes<br>1,976.4 m     |
| BOUNDARY                 | 4 holes<br>86.9 m      |                        |                         |                         |                         |                         |                         | 5 holes<br>612.4 m      |                         | 4 holes<br>566.6 m       |                          | 17 holes<br>2,063.8 m    |                           | 31 holes<br>3,116.4 m     |                           | 3 holes<br>366.8 m        | 6 holes<br>1,428.0 m   |                         |      | 70 holes<br>8,194.8 m     |
| DONALDSON<br>SURFACE     | 21 holes<br>865.6 m    | 28 holes<br>1,800.8 m  |                         |                         |                         | 6 holes<br>456.1 m      | 39 holes<br>8,197.3 m   | 36 holes<br>9,250.4 m   | 33 holes<br>9,443.3 m   | 22 holes<br>6,412.4 m    | 64 holes<br>8,690.8 m    | 2 holes                  |                           |                           | 61 holes<br>15,807.0 m    | 3 holes<br>366.2 m        | 5 holes<br>2,104.9 m   | 14 holes<br>3,129.0 m   |      | 363 holes<br>66,327.6 m   |
| DONALDSON<br>SKIFT       |                        |                        |                         |                         |                         |                         |                         |                         |                         | 1 hole<br>308.4 m        |                          |                          |                           |                           |                           |                           |                        |                         |      | 1 hole<br>308.4 m         |
| DONALDSON<br>UNDERCUT    |                        |                        |                         |                         |                         |                         |                         |                         |                         |                          |                          |                          |                           | 115 holes<br>13,303.6 m   |                           |                           |                        |                         |      | 115 holes<br>13,303.6 m   |
| MISCELLANEOUS            |                        |                        |                         |                         |                         |                         |                         |                         |                         |                          |                          |                          |                           |                           |                           | 2 holes<br>246.3 m        |                        |                         |      | 2 holes<br>246.3 m        |
| TOTAL                    | 120 holes<br>5,589.6 m | 28 holes<br>1,800.8 m  |                         |                         | 42 holes<br>6,226.1 m   | 29 holes<br>5,651.2 m   | 89 holes<br>19,328.3 m  | 80 holes<br>11,036.4 m  | 53 holes<br>11,524.2 m  | 70 holes<br>15,564.3 m   | 85 holes<br>12,212.7 m   | 119 holes<br>18,707.0 m  | 56 holes<br>9,563.5 m     | 296 holes<br>4,911.4 m    | 61 holes<br>15,807.0 m    | 33 holes<br>4,156.3 m     | 48 holes<br>12,195.1 m | 123 holes<br>28,786.0 m |      | 1312 holes<br>222,086.1 m |
| TOTAL CUMUL              | 120 holes<br>5,589.6 m | 148 holes<br>7,390.6 m | 190 holes<br>12,616.7 m | 219 holes<br>18,287.9 m | 308 holes<br>37,566.2 m | 368 holes<br>44,834.6 m | 368 holes<br>60,168.6 m | 421 holes<br>76,723.1 m | 491 holes<br>87,936.6 m | 556 holes<br>104,642.6 m | 675 holes<br>114,226.3 m | 731 holes<br>163,339.7 m | 1027 holes<br>178,944.7 m | 1106 holes<br>183,106.0 m | 1141 holes<br>196,300.1 m | 1189 holes<br>222,086.1 m |                        |                         |      | 1312 holes<br>222,086.1 m |

Further to these two technics, a test was conducted to verify the validity of a seismic reflexion method in an ultramafic environment. A total of 5 km was covered from August 11th to August 23rd.

5 - Conclusion:

The 1990 drill and geophysical programs at Raglan allowed us to outlined several targets that will require follow up work in the near future.

A handwritten signature in dark ink, appearing to read 'M.W. Dufresne', followed by a horizontal line.

M.W. Dufresne  
Senior Geologist - Raglan

Ministère de l'Énergie et des Ressources  
Division des données géologiques  
DATE 20 AOÛT 1991  
NO G.M. 050477

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FEB 1991

REGISTRE DE SONDAGES 1990 RAGLAN

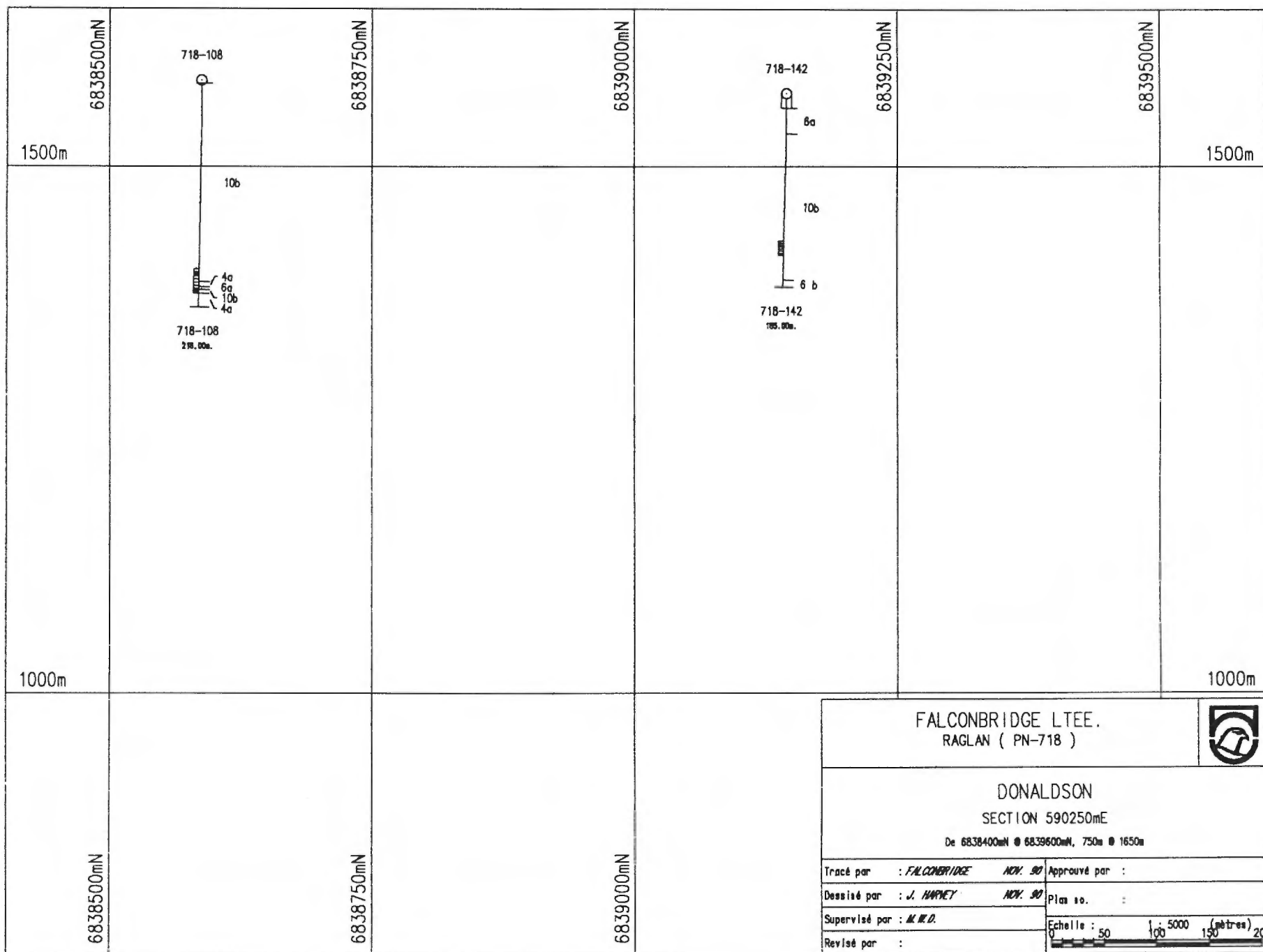
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| DONALDSON | 718-100 | 6838600.25 N | 590599.61 E | 1567.54   | 180 | -90 | 336.00 | 07/15/90 |
| DONALDSON | 718-101 | 6838620.32 N | 590599.61 E | 1566.45   | 180 | -90 | 224.00 | 07/17/90 |
| DONALDSON | 718-102 | 6838620.17 N | 590675.01 E | 1564.97   | 180 | -88 | 279.00 | 07/19/90 |
| DONALDSON | 718-103 | 6838620.32 N | 590749.98 E | 1566.25   | 180 | -90 | 237.00 | 07/21/90 |
| DONALDSON | 718-104 | 6838620.33 N | 590824.83 E | 1566.28   | 180 | -88 | 146.50 | 07/22/90 |
| DONALDSON | 718-105 | 6838584.89 N | 590450.10 E | 1569.44   | 180 | -90 | 182.00 | 07/24/90 |
| DONALDSON | 718-106 | 6838545.09 N | 590550.36 E | 1565.68   | 180 | -90 | 159.00 | 07/25/90 |
| DONALDSON | 718-107 | 6838585.17 N | 590350.35 E | 1575.38   | 180 | -90 | 192.00 | 07/26/90 |
| DONALDSON | 718-108 | 6838588.08 N | 590244.85 E | 1582.27   | 180 | -90 | 216.00 | 07/28/90 |
| DONALDSON | 718-109 | 6838655.11 N | 590500.14 E | 1568.03   | 180 | -90 | 231.00 | 07/31/90 |
| ZONE-3    | 718-110 | 6836952.30 N | 565207.24 E | 1585.30   | 180 | -72 | 88.00  | 07/29/90 |
| ZONE-3    | 718-111 | 6836958.73 N | 565183.72 E | 1589.39   | 180 | -59 | 85.00  | 08/01/90 |
| ZONE-3    | 718-112 | 6836924.71 N | 565159.94 E | 1581.84   | 180 | -56 | 89.00  | 08/01/90 |
| ZONE-3    | 718-113 | 6836928.31 N | 565124.88 E | 1587.20   | 180 | -66 | 119.00 | 08/02/90 |
| ZONE-3    | 718-114 | 6836967.65 N | 565120.21 E | 1593.00   | 180 | -88 | 193.50 | 08/04/90 |
| ZONE-3    | 718-115 | 6836934.91 N | 564994.84 E | 1592.77   | 180 | -87 | 236.00 | 08/07/90 |
| ZONE-3    | 718-116 | 6836984.85 N | 564974.82 E | 1597.71   | 180 | -85 | 269.00 | 08/09/90 |
| ZONE-3    | 718-117 | 6837199.96 N | 564964.94 E | 1602.86   | 180 | -85 | 398.00 | 08/12/90 |
| ZONE-3    | 718-118 | 6836949.99 N | 565124.95 E | 1590.49   | 180 | -83 | 133.00 | 08/13/90 |
| ZONE-3    | 718-119 | 6836900.11 N | 565125.81 E | 1581.43   | 180 | -57 | 109.00 | 08/14/90 |
| KATINIQ   | 718-120 | 6839344.76 N | 569400.18 E | 1529.81   | 180 | -90 | 248.00 | 08/03/90 |
| KATINIQ   | 718-121 | 6839250.15 N | 569365.34 E | 1526.13   | 180 | -87 | 216.00 | 08/05/90 |
| KATINIQ   | 718-122 | 6839432.30 N | 569377.88 E | 1525.08   | 180 | -88 | 353.00 | 08/09/90 |
| TINIQ     | 718-123 | 6839424.82 N | 569549.86 E | 1527.83   | 180 | -51 | 270.00 | 09/12/90 |
| KATINIQ   | 718-124 | 6839424.82 N | 569549.86 E | 1527.83   | 180 | -69 | 281.00 | 08/14/90 |
| KATINIQ   | 718-125 | 6839424.82 N | 569549.86 E | 1527.83   | 180 | -84 | 241.40 | 08/16/90 |
| KATINIQ   | 718-126 | 6839424.82 N | 569549.86 E | 1527.83   | 180 | -60 | 277.00 | 08/19/90 |
| KATINIQ   | 718-127 | 6839424.82 N | 569549.86 E | 1527.83   | 180 | -78 | 242.00 | 08/20/90 |
| KATINIQ   | 718-128 | 6839410.00 N | 569510.37 E | 1527.20   | 180 | -71 | 285.00 | 08/20/99 |
| KATINIQ   | 718-129 | 6839312.37 N | 569691.39 E | 1551.00   | 180 | -75 | 202.00 | 08/17/90 |
| KATINIQ   | 718-130 | 6839620.38 N | 570574.39 E | 1581.40   | 180 | -88 | 190.00 | 08/01/90 |
| KATINIQ   | 718-131 | 6839626.38 N | 570659.49 E | 1587.18   | 180 | -88 | 170.00 | 08/02/90 |
| KATINIQ   | 718-132 | 6839533.46 N | 570600.25 E | 1584.59   | 180 | -55 | 81.00  | 08/03/90 |
| KATINIQ   | 718-133 | 6839490.02 N | 570560.35 E | 1582.33   | 180 | -55 | 80.00  | 08/04/90 |
| KATINIQ   | 718-134 | 6839635.51 N | 570139.77 E | 1574.93   | 180 | -90 | 233.00 | 08/05/90 |
| KATINIQ   | 718-135 | 6839635.10 N | 570139.75 E | 1575.12   | 180 | -70 | 257.00 | 08/07/90 |
| KATINIQ   | 718-136 | 6839634.25 N | 570139.76 E | 1574.59   | 180 | -55 | 218.00 | 08/09/90 |
| KATINIQ   | 718-137 | 6839420.05 N | 570090.03 E | 1578.48   | 180 | -88 | 146.00 | 08/10/90 |
| KATINIQ   | 718-138 | 6839385.04 N | 570110.42 E | 1576.80   | 180 | -90 | 144.00 | 08/11/90 |
| DONALDSON | 718-139 | 6838549.97 N | 590485.36 E | 1568.62   | 180 | -90 | 155.00 | 08/01/90 |
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| DONALDSON | 718-141 | 6839425.05 N | 590550.13 E | 1569.86   | 180 | -88 | 183.00 | 08/09/90 |
| DONALDSON | 718-142 | 6839145.05 N | 590244.76 E | 1570.47   | 180 | -90 | 185.00 | 08/11/90 |
| KATINIQ   | 718-143 | 6839345.30 N | 569837.90 E | 1546.30   | 180 | -90 | 180.00 | 08/14/90 |
| KATINIQ   | 718-144 | 6839411.00 N | 569712.80 E | 1543.15   | 180 | -57 | 230.00 | 08/16/90 |
| KATINIQ   | 718-145 | 6839509.11 N | 569884.71 E | 1573.29   | 180 | -86 | 248.00 | 08/06/90 |
| KATINIQ   | 718-146 | 6839449.79 N | 569824.86 E | 1565.60   | 180 | -86 | 296.00 | 08/08/90 |
| KATINIQ   | 718-147 | 6839421.18 N | 569873.63 E | 1567.44   | 180 | -87 | 226.00 | 08/10/90 |
| KATINIQ   | 718-148 | 6839399.11 N | 569875.03 E | 1567.24   | 180 | -65 | 206.00 | 08/12/90 |
| KATINIQ   | 718-149 | 6839370.03 N | 569950.10 E | 1569.89   | 180 | -90 | 164.00 | 08/14/90 |
| ZONE-2    | 718-150 | 6837475.06 N | 566684.76 E | 1586.16   | 180 | -85 | 155.00 | 08/11/90 |
| ZONE-2    | 718-151 | 6837571.65 N | 567114.18 E | 1570.30   | 180 | -59 | 134.00 | 08/12/90 |
| ZONE-2    | 718-152 | 6837571.65 N | 567114.18 E | 1570.30   | 180 | -77 | 155.00 | 08/13/90 |
| ZONE-2    | 718-153 | 6837676.00 N | 567112.05 E | 1589.00   | 180 | -85 | 287.00 | 08/15/90 |

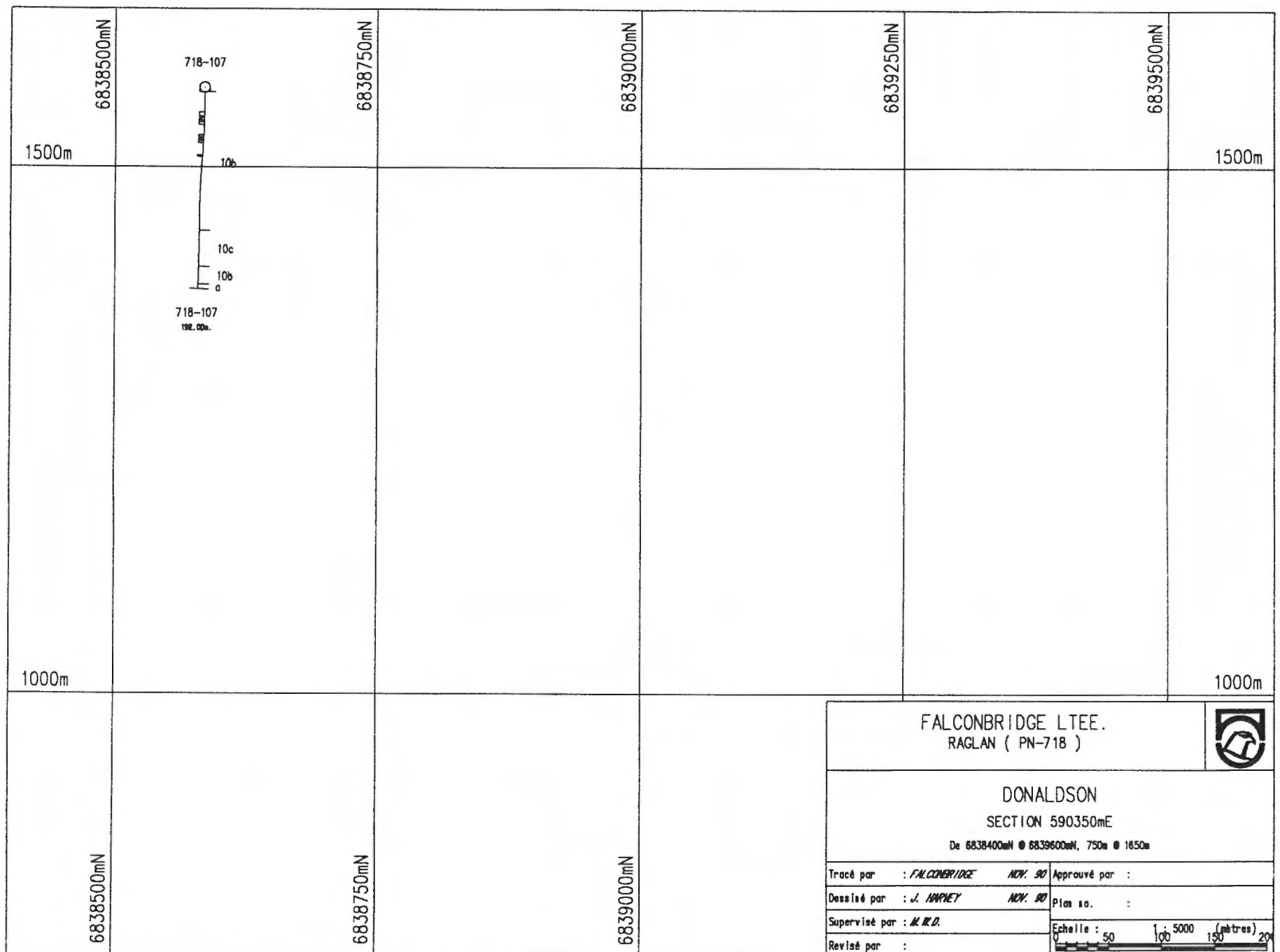
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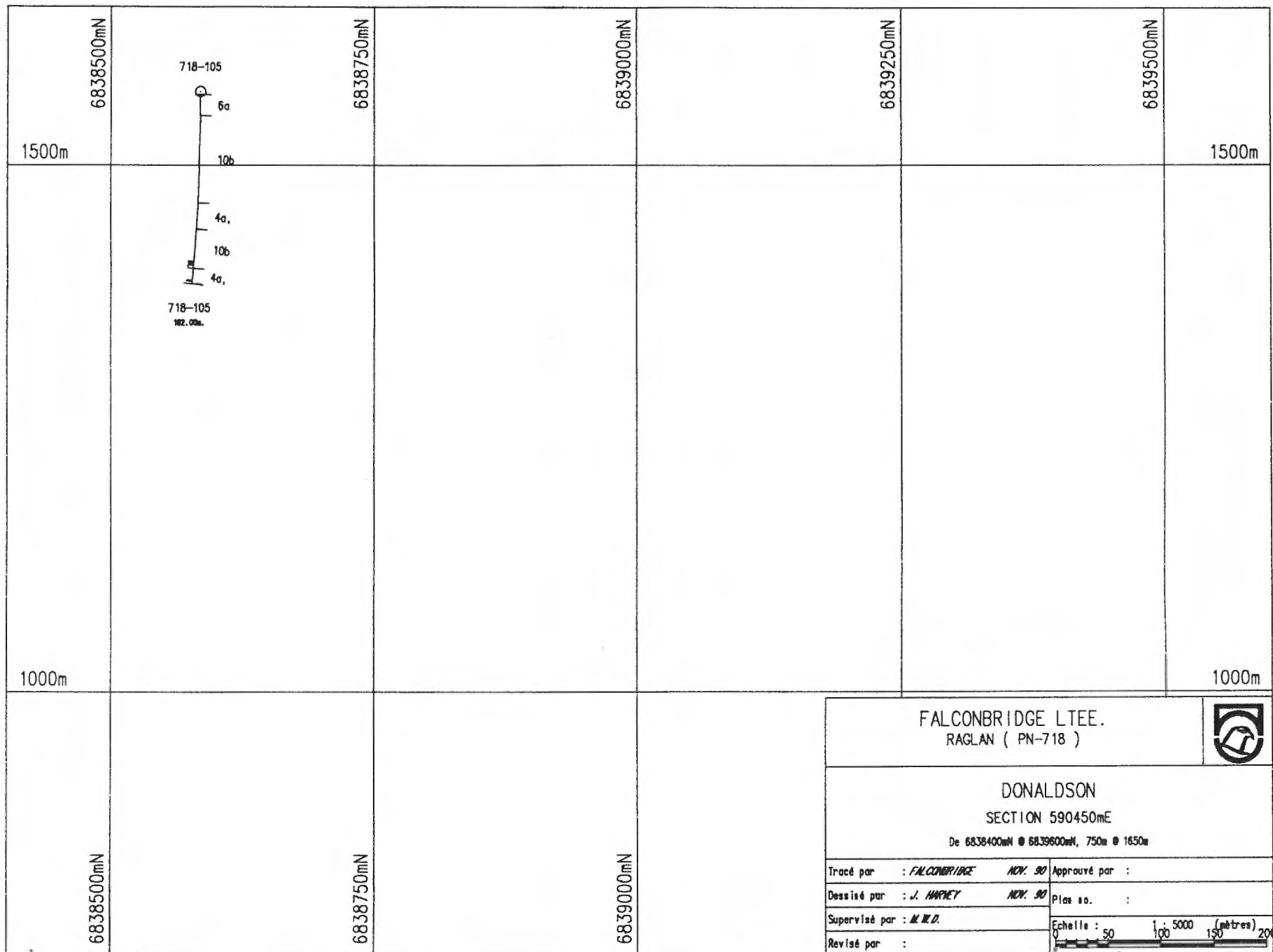
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|---------|---------|--------------|-------------|-----------|-----|-----|--------|----------|
| ZONE-3  | 718-154 | 6836949.84 N | 564987.90 E | 1594.12   | 180 | -90 | 242.00 | 08/16/90 |
| KATINIQ | 718-155 | 6839495.25 N | 570235.22 E | 1584.02   | 180 | -86 | 157.50 | 08/12/90 |
| KATINIQ | 718-156 | 6839659.52 N | 570470.30 E | 1579.35   | 180 | -82 | 138.50 | 08/13/90 |
| KATINIQ | 718-157 | 6839631.04 N | 570629.59 E | 1587.64   | 180 | -83 | 195.00 | 08/14/90 |
| KATINIQ | 718-158 | 6839543.82 N | 570714.56 E | 1579.66   | 180 | -87 | 86.00  | 08/15/90 |
| KATINIQ | 718-159 | 6839594.79 N | 570040.08 E | 1574.57   | 180 | -86 | 256.00 | 08/17/90 |
| KATINIQ | 718-160 | 6839539.92 N | 569964.88 E | 1574.84   | 180 | -85 | 272.00 | 08/20/90 |
| KATINIQ | 718-161 | 6839359.84 N | 570000.08 E | 1570.24   | 180 | -90 | 143.00 | 08/14/90 |
| KATINIQ | 718-162 | 6839399.99 N | 569984.78 E | 1573.17   | 180 | -87 | 146.00 | 08/15/90 |
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| KATINIQ | 718-164 | 6839600.05 N | 569900.12 E | 1572.00   | 180 | -83 | 287.00 | 08/19/90 |
| KATINIQ | 718-165 | 6839312.37 N | 569691.39 E | 1551.00   | 0   | -85 | 211.00 | 08/19/90 |
| KATINIQ | 718-166 | 6839305.07 N | 569659.90 E | 1555.50   | 180 | -83 | 224.70 | 08/18/90 |
| KATINIQ | 718-167 | 6839390.20 N | 569430.30 E | 1525.70   | 180 | -75 | 249.00 | 08/18/90 |
| KATINIQ | 718-168 | 6839490.13 N | 569799.96 E | 1568.20   | 180 | -75 | 278.00 | 08/21/90 |
| KATINIQ | 718-169 | 6839410.07 N | 570009.97 E | 1575.80   | 180 | -87 | 152.00 | 08/21/90 |
| KATINIQ | 718-170 | 6839449.88 N | 569320.12 E | 1521.50   | 180 | -84 | 327.00 | 08/22/90 |
| KATINIQ | 718-171 | 6839452.91 N | 569470.18 E | 1549.08   | 180 | -88 | 347.00 | 08/20/90 |
| KATINIQ | 718-49  | 6839555.11 N | 570655.09 E | 1585.04   | 180 | -90 | 140.00 | 07/09/90 |
| KATINIQ | 718-50  | 6839555.11 N | 570655.09 E | 1585.04   | 180 | -80 | 151.00 | 07/10/90 |
| KATINIQ | 718-51  | 6839570.20 N | 570690.14 E | 1585.16   | 180 | -90 | 132.00 | 07/11/90 |
| KATINIQ | 718-52  | 6839589.63 N | 570724.93 E | 1583.82   | 180 | -90 | 119.00 | 07/13/90 |
| KATINIQ | 718-53  | 6839594.73 N | 570615.03 E | 1586.60   | 180 | -90 | 182.30 | 07/15/90 |
| KATINIQ | 718-54  | 6839310.35 N | 569647.49 E | 1556.72   | 180 | -90 | 213.00 | 07/17/90 |
| KATINIQ | 718-55  | 6839312.37 N | 569691.39 E | 1551.00   | 180 | -82 | 221.00 | 07/20/90 |
| KATINIQ | 718-56  | 6839365.75 N | 569470.34 E | 1534.65   | 180 | -88 | 280.00 | 07/23/90 |
| KATINIQ | 718-57  | 6839400.17 N | 569430.30 E | 1525.55   | 180 | -85 | 260.00 | 07/26/90 |
| KATINIQ | 718-58  | 6839399.91 N | 569430.28 E | 1525.69   | 180 | -72 | 245.00 | 07/28/90 |
| KATINIQ | 718-59  | 6839399.49 N | 569430.25 E | 1525.99   | 180 | -55 | 265.00 | / /      |
| ZONE-2  | 718-60  | 6837765.45 N | 567104.62 E | 1591.14   | 180 | -90 | 408.00 | 07/13/90 |
| ZONE-2  | 718-61  | 6837765.13 N | 567104.64 E | 1591.61   | 180 | -72 | 340.00 | 07/18/90 |
| ZONE-2  | 718-62  | 6837729.78 N | 567084.90 E | 1593.72   | 180 | -85 | 380.00 | 07/21/90 |
| ZONE-2  | 718-63  | 6837790.56 N | 567064.73 E | 1594.43   | 180 | -86 | 356.15 | 07/25/90 |
| ZONE-2  | 718-64  | 6837626.09 N | 567114.01 E | 1583.23   | 180 | -85 | 230.00 | 07/27/90 |
| ZONE-2  | 718-65  | 6837570.00 N | 567114.00 E | 1571.30   | 180 | -87 | 194.00 | 07/29/90 |
| ZONE-2  | 718-66  | 6837644.77 N | 567140.19 E | 1583.25   | 180 | -71 | 213.00 | 08/02/90 |
| ZONE-2  | 718-67  | 6837645.14 N | 567140.21 E | 1583.15   | 180 | -85 | 230.00 | 08/04/90 |
| ZONE-2  | 718-68  | 6837639.95 N | 567080.09 E | 1586.07   | 180 | -88 | 290.00 | 08/07/90 |
| ZONE-2  | 718-69  | 6837639.95 N | 567080.09 E | 1586.07   | 180 | -77 | 250.00 | 08/09/90 |
| ZONE-3  | 718-70  | 6837000.39 N | 565170.62 E | 1594.03   | 180 | -90 | 191.00 | 07/10/90 |
| ZONE-3  | 718-71  | 6836999.59 N | 565170.58 E | 1594.16   | 180 | -56 | 131.00 | 07/11/90 |
| ZONE-3  | 718-72  | 6836995.51 N | 565140.22 E | 1595.50   | 180 | -90 | 199.50 | 07/13/90 |
| ZONE-3  | 718-73  | 6836994.82 N | 565140.23 E | 1595.36   | 180 | -60 | 143.00 | 07/14/90 |
| ZONE-3  | 718-74  | 6837015.93 N | 565039.52 E | 1598.83   | 180 | -90 | 281.00 | 07/16/90 |
| ZONE-3  | 718-75  | 6837015.73 N | 565039.49 E | 1599.08   | 180 | -78 | 241.00 | 07/18/90 |
| ZONE-3  | 718-76  | 6837024.77 N | 565070.06 E | 1600.10   | 180 | -87 | 280.00 | 07/21/90 |
| ZONE-3  | 718-77  | 6837089.19 N | 565000.13 E | 1601.90   | 180 | -86 | 343.00 | 07/24/90 |
| ZONE-3  | 718-78  | 6837089.04 N | 565000.15 E | 1602.84   | 180 | -70 | 296.00 | 07/26/90 |
| ZONE-3  | 718-79  | 6837011.24 N | 565209.85 E | 1594.70   | 180 | -85 | 160.40 | 07/27/90 |
| KATINIQ | 718-80  | 6839419.30 N | 569904.78 E | 1570.45   | 180 | -87 | 267.00 | 07/15/90 |
| KATINIQ | 718-81  | 6839418.89 N | 569904.70 E | 1569.64   | 180 | -67 | 221.00 | 07/16/90 |
| KATINIQ | 718-82  | 6839474.59 N | 569920.07 E | 1573.86   | 180 | -90 | 245.80 | 07/19/90 |
| KATINIQ | 718-83  | 6839549.73 N | 569899.97 E | 1573.81   | 180 | -86 | 272.00 | 07/23/90 |
| KATINIQ | 718-84  | 6839573.92 N | 569920.72 E | 1574.31   | 180 | -85 | 287.35 | 07/25/90 |

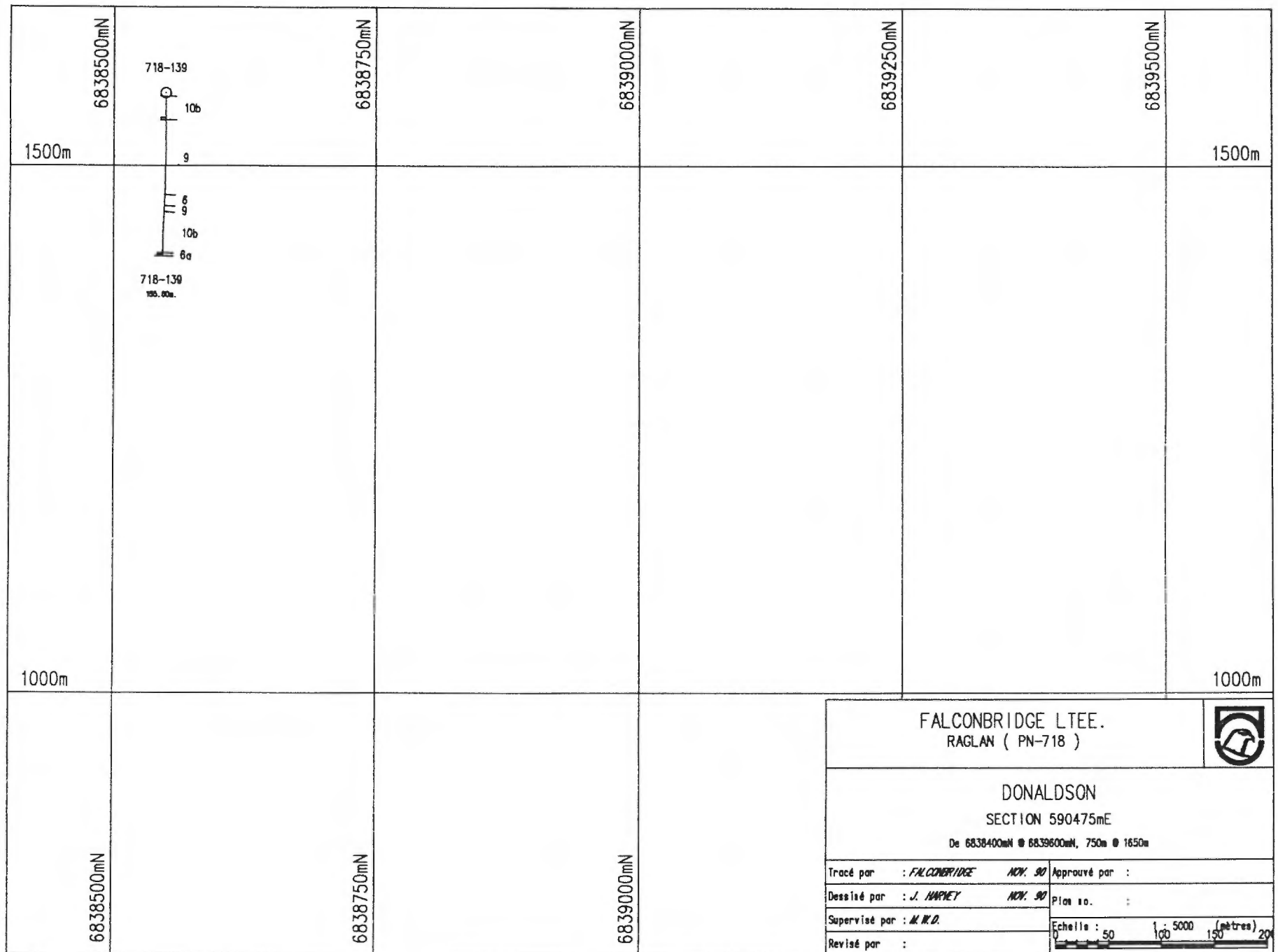
REGISTRE DE SONDAGES 1990 RAGLAN

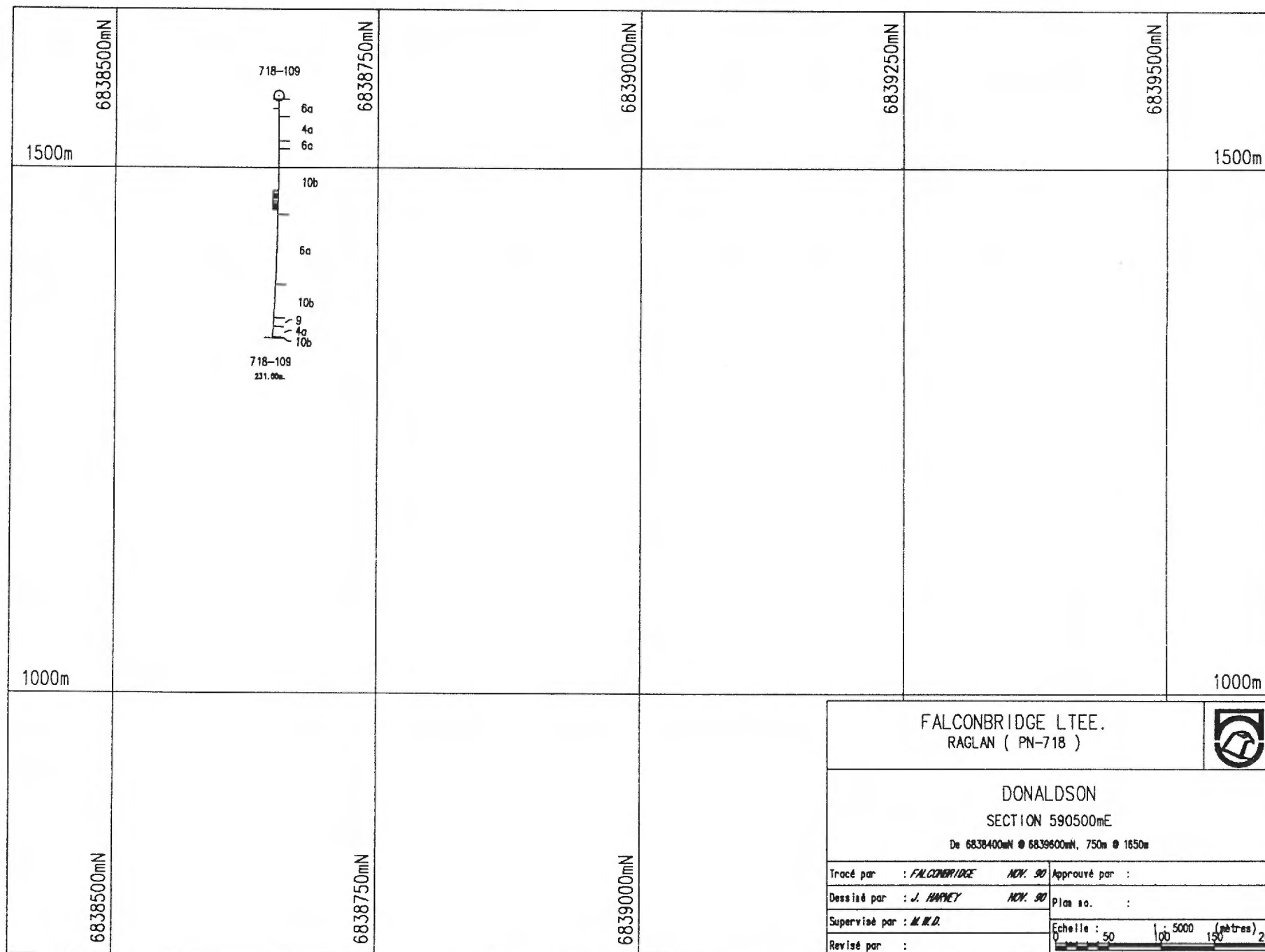
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|---------|--------|--------------|-------------|-----------|-----|-----|--------|----------|
| KATINIQ | 718-85 | 6839535.40 N | 569999.77 E | 1575.72   | 180 | -86 | 248.00 | 07/27/90 |
| KATINIQ | 718-86 | 6839534.89 N | 570045.13 E | 1576.12   | 180 | -85 | 230.00 | 07/29/90 |
| KATINIQ | 718-87 | 6839515.87 N | 570060.31 E | 1576.29   | 180 | -85 | 208.00 | 07/31/90 |
| KATINIQ | 718-88 | 6839624.60 N | 570020.92 E | 1572.83   | 180 | -85 | 260.00 | 08/02/90 |
| KATINIQ | 718-89 | 6839569.26 N | 569965.47 E | 1574.74   | 180 | -85 | 266.00 | 08/04/90 |
| KATINIQ | 718-90 | 6839479.92 N | 570009.74 E | 1576.72   | 180 | -88 | 232.00 | 07/16/90 |
| KATINIQ | 718-91 | 6839479.63 N | 570009.68 E | 1576.40   | 180 | -76 | 203.00 | 07/18/90 |
| KATINIQ | 718-92 | 6839480.65 N | 570070.55 E | 1578.18   | 180 | -87 | 186.00 | 07/19/90 |
| KATINIQ | 718-93 | 6839480.52 N | 570070.55 E | 1578.37   | 180 | -77 | 179.00 | 07/21/90 |
| KATINIQ | 718-94 | 6839415.31 N | 570200.02 E | 1581.19   | 180 | -90 | 98.00  | 07/22/90 |
| KATINIQ | 718-95 | 6839449.93 N | 570218.31 E | 1582.20   | 180 | -88 | 134.00 | 07/23/90 |
| KATINIQ | 718-96 | 6839570.00 N | 570225.00 E | 1576.87   | 180 | -87 | 167.00 | 07/25/90 |
| KATINIQ | 718-97 | 6839565.35 N | 570344.77 E | 1581.69   | 180 | -87 | 140.00 | 07/27/90 |
| KATINIQ | 718-98 | 6839580.10 N | 570445.02 E | 1580.05   | 180 | -90 | 170.00 | 07/28/90 |
| KATINIQ | 718-99 | 6839624.50 N | 570459.98 E | 1580.34   | 180 | -87 | 173.00 | 07/30/90 |

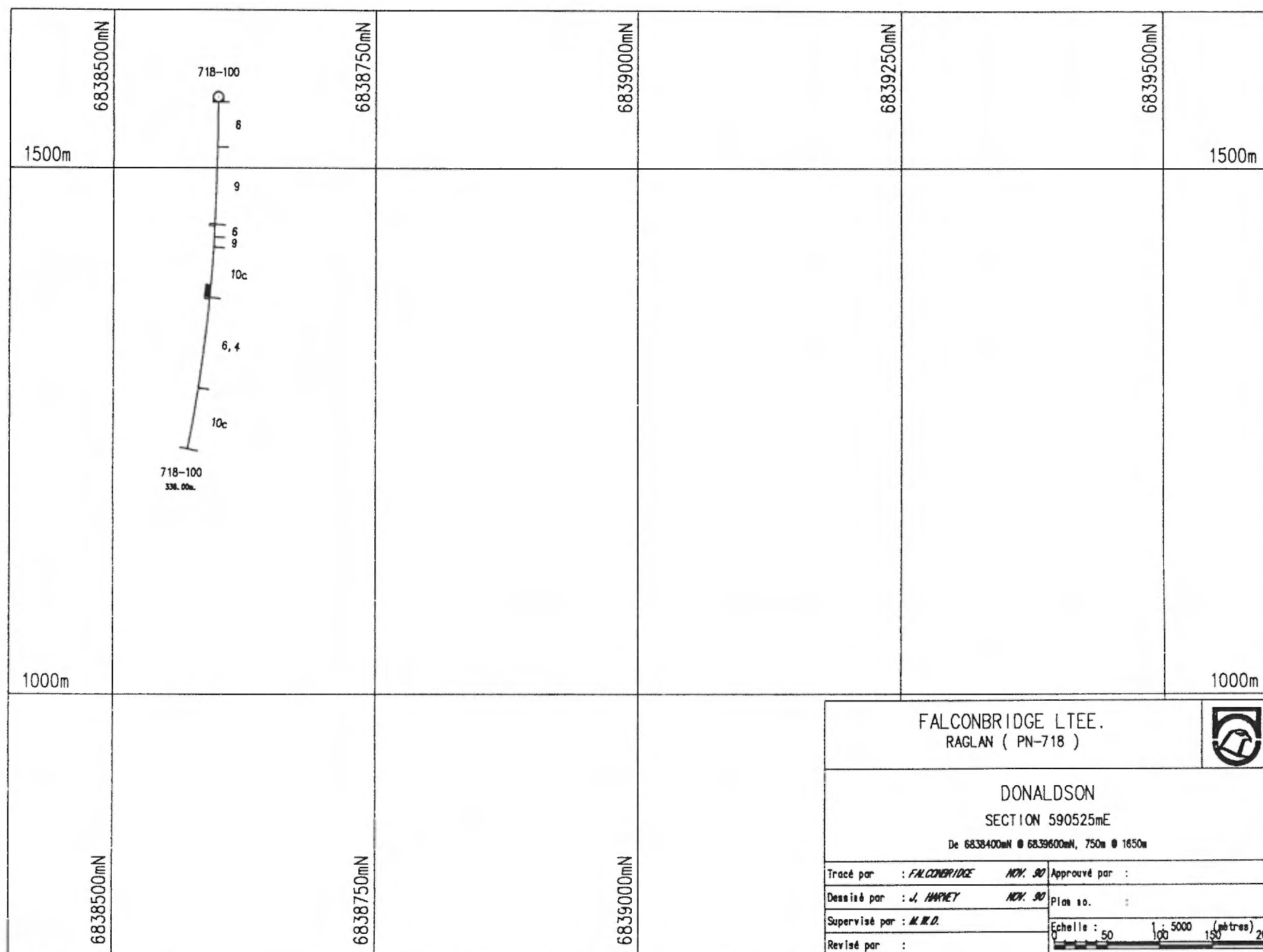


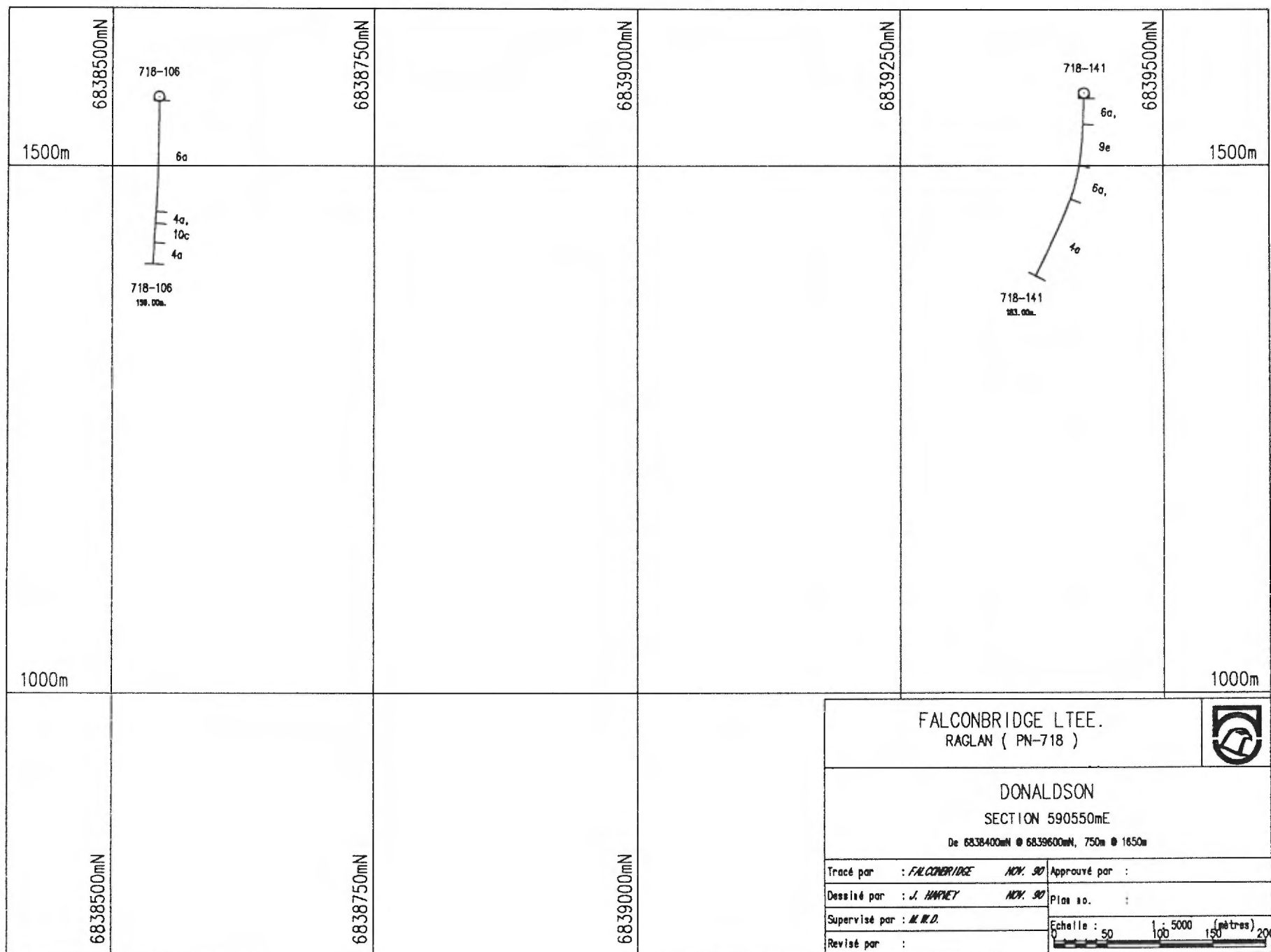


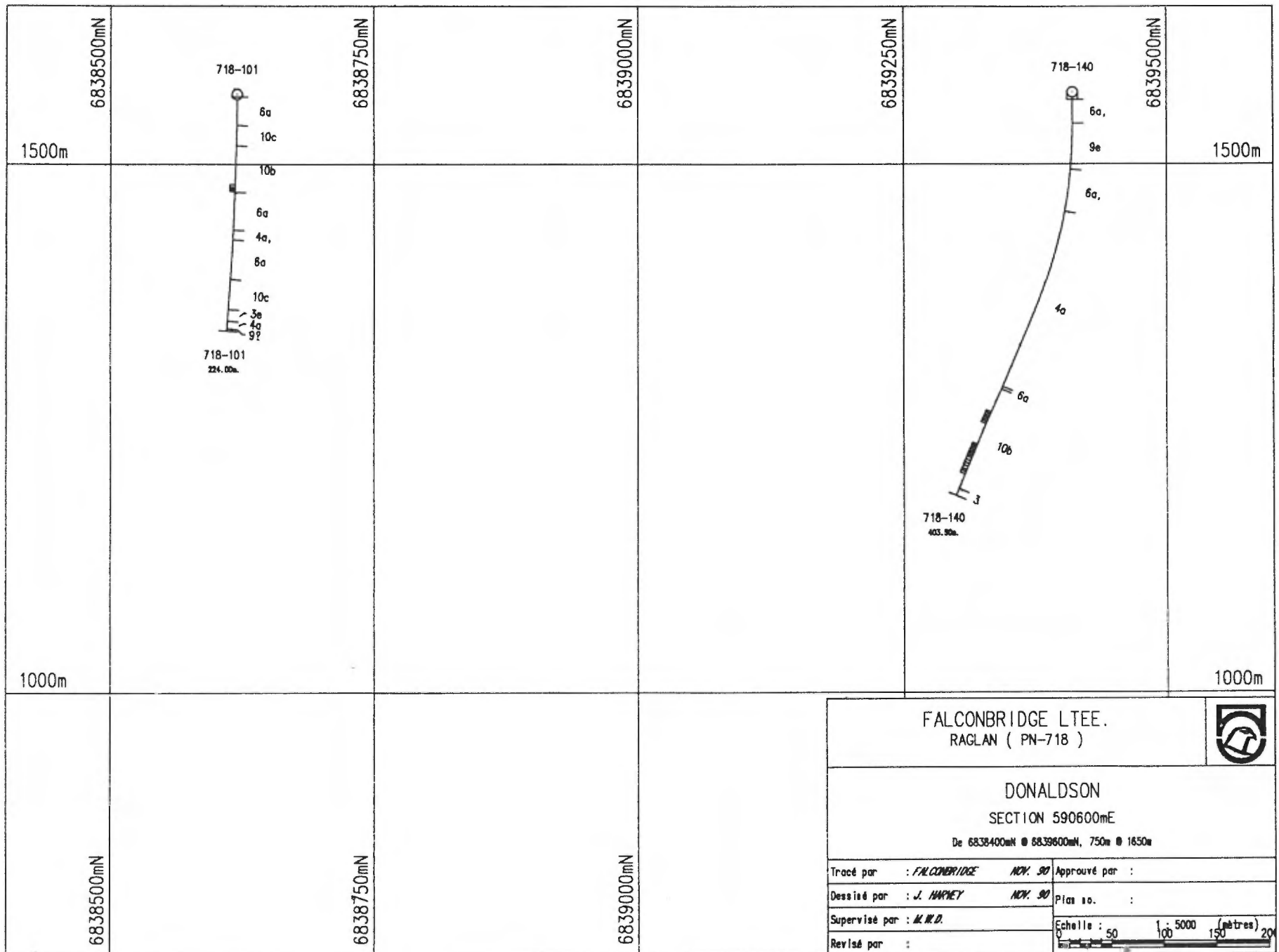


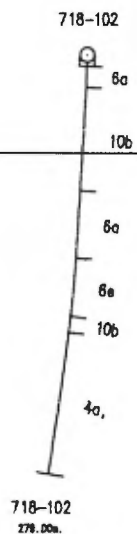
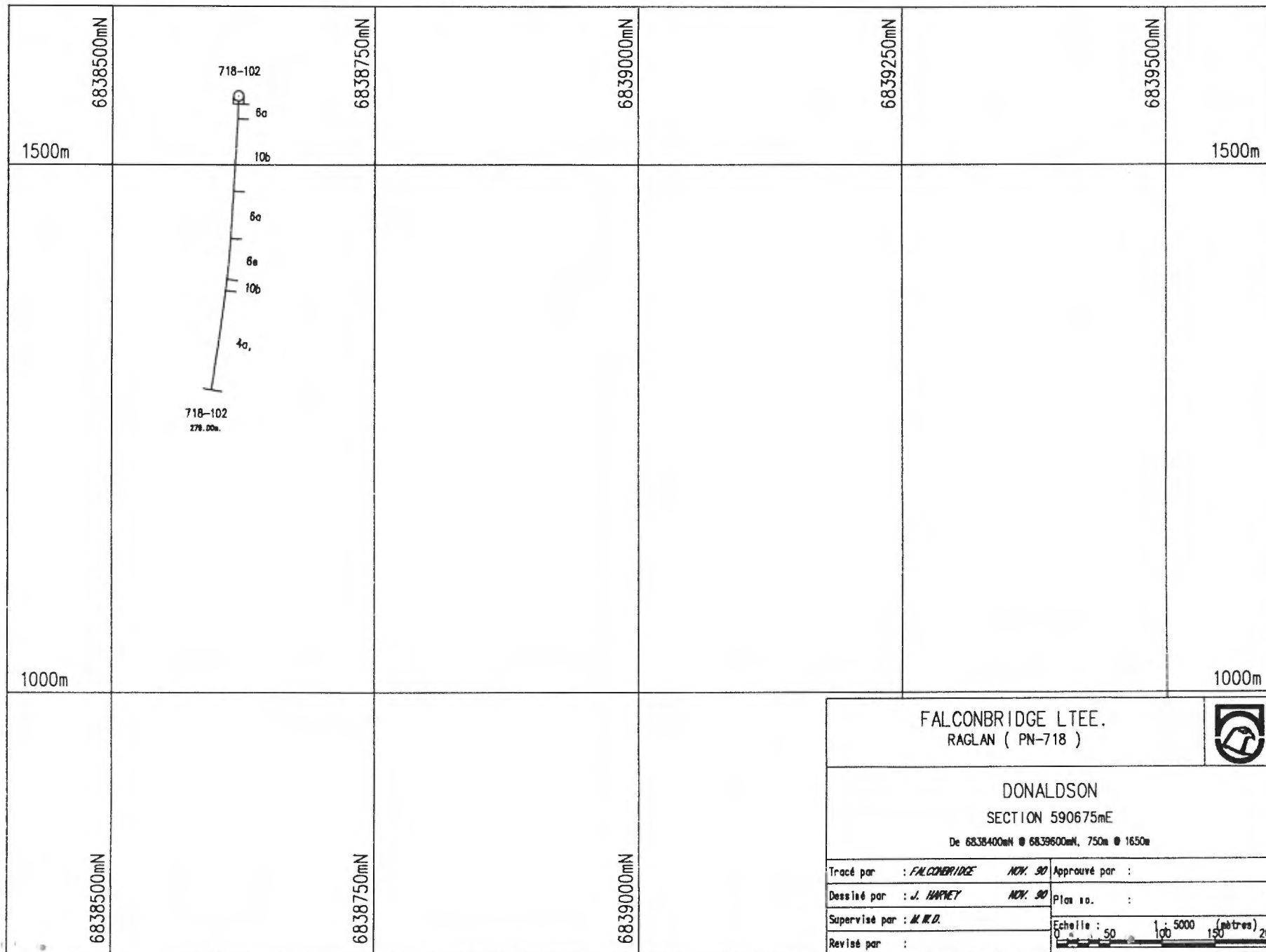


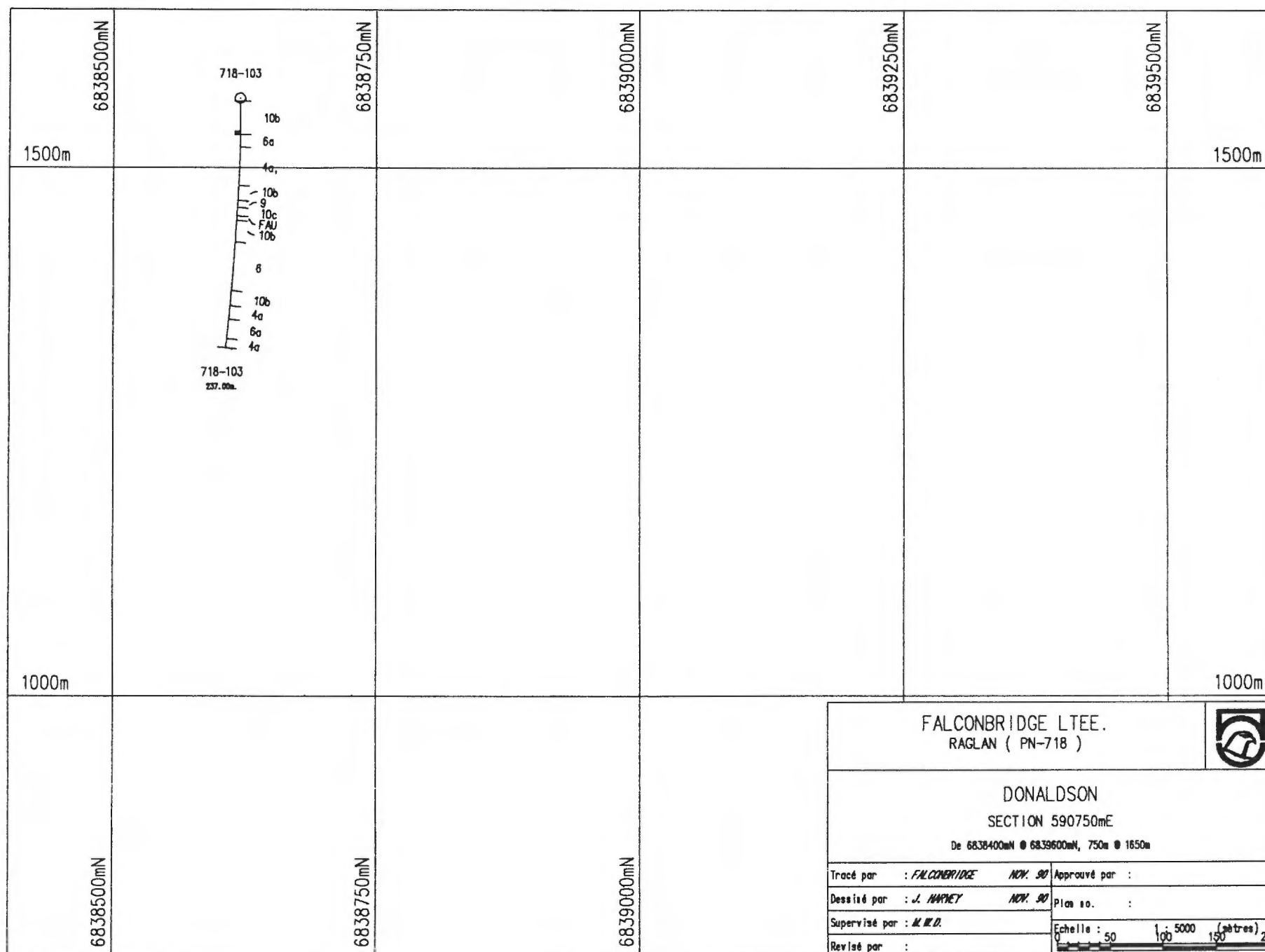


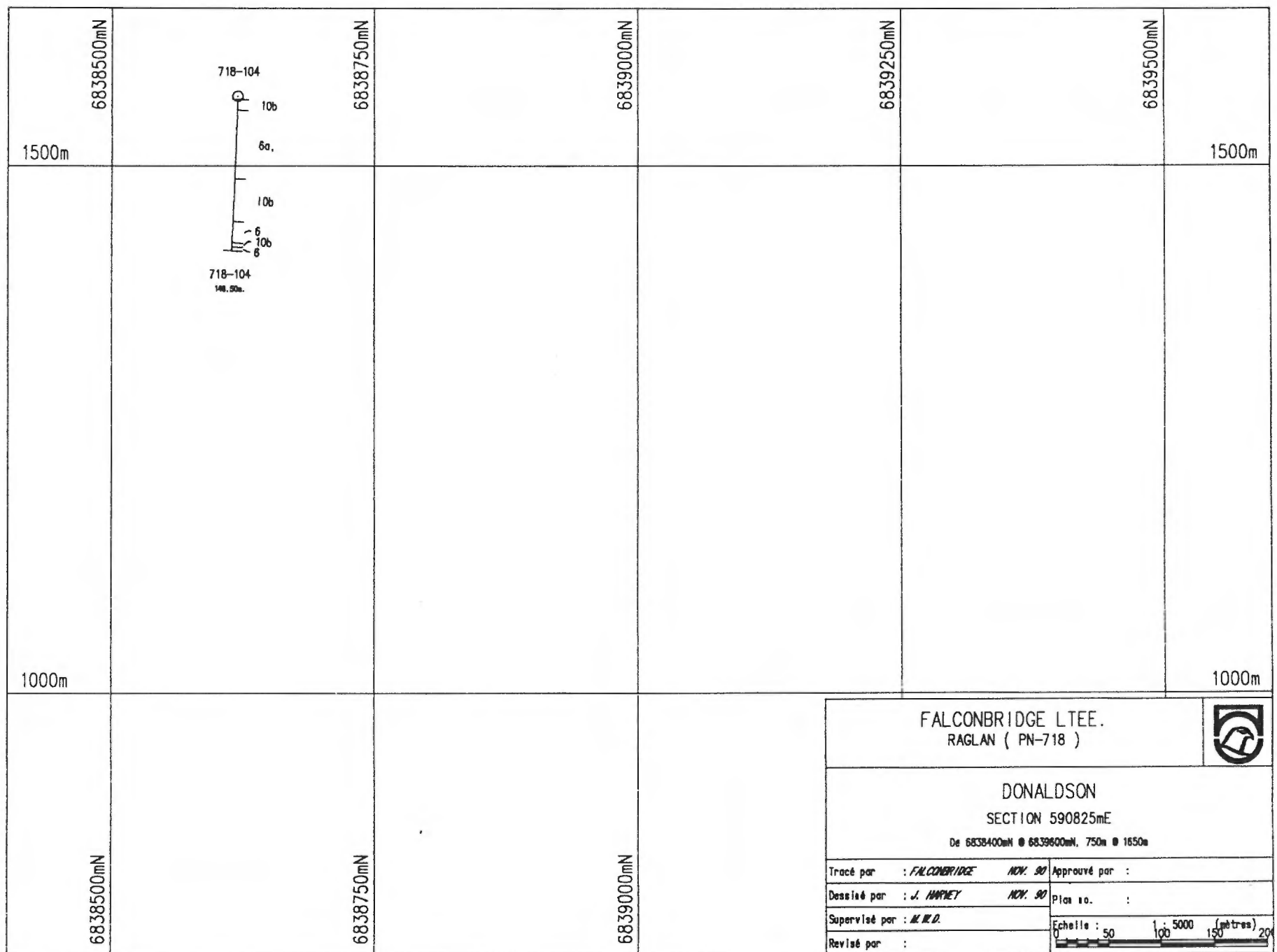












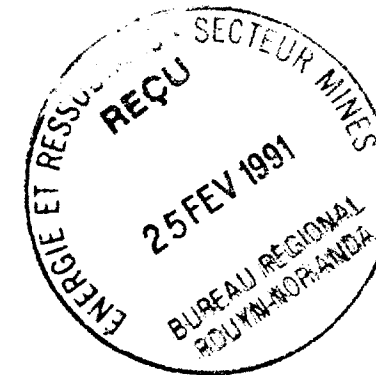
FALCONBRIDGE LTEE  
JOURNAL DE SONDAGE  
Propriété: DONALDSON-S

Trou no: 718-100      Zone no:      Contracteur: BRADLEY BROS.      Débuté le: 13/ 7/1990  
Canton : 8130      Terminé le: 15/ 7/1990  
Lot :      Rang :      Claim no:404536-5  
Niveau : DON/30/B      Section: 590525mE      Lieu de travail: SURFACE  
Coordonnées au collet :      Ligne : 0+00      Latitude: 6838600.25 N      Azimut: 180° 0' 0"  
Station: 0+00      Longitude: 590525.03 E      Inclinaison: -90° 0' 0"  
Système de référence: U.T.M.      Elévation: 1567.54      Longueur: 336.00 M

Arpenté par: J.HARVEY (CASING)

Tests de déviation :

| Profondeur | Inclinaison | Az Corrigé |
|------------|-------------|------------|
| 14.00 M    | -90° 0' 0"  |            |
| 26.00 M    | -89° 0' 0"  |            |
| 38.00 M    | -89° 0' 0"  |            |
| 50.00 M    | -89° 0' 0"  |            |
| 62.00 M    | -89° 0' 0"  |            |
| 74.00 M    | -88° 0' 0"  |            |
| 86.00 M    | -88° 0' 0"  |            |
| 98.00 M    | -88° 0' 0"  |            |
| 110.00 M   | -87°30' 0"  |            |
| 122.00 M   | -87°30' 0"  |            |
| 134.00 M   | -87°30' 0"  |            |
| 146.00 M   | -86° 0' 0"  |            |
| 170.00 M   | -85°30' 0"  |            |



Ministère de l'Énergie et des Ressources  
Division des données géoscientifiques  
DATE 20 AOUT 1991  
NO G.M. 050477

Remarques : 44355-> whole core , 44356-44366->split core  
cond.core:4.76-117.07, 122.85-174.9, 192.0-271.95

Débit d'eau:  
Cimenté :

Bouchon: YES  
Dimension de la carotte: BQ

| DE<br>(M) | A<br>(M) | DESCRIPTION                                                                                                                                                                                                                                                                                                                                                                                 | Echan. | DE     | A      | Long.<br>(M) | Ni<br>% | Cu<br>% | Co<br>% | S<br>% | Au<br>g/t | Pt<br>g/t | Pd<br>g/t | Pb<br>% | Ni/S<br>% | GRAV.<br>s.g. |
|-----------|----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|--------|--------|--------------|---------|---------|---------|--------|-----------|-----------|-----------|---------|-----------|---------------|
| 0.00      | 5.00     | CASING                                                                                                                                                                                                                                                                                                                                                                                      |        |        |        |              |         |         |         |        |           |           |           |         |           |               |
| 5.00      | 47.60    | MAFIC VOLCANICS<br>F.g., grey, mottled appearance; weakly to moderately developed banding (?) at CA 60°; Some 20-40cm stretched fragmental sections; (agglomerate)<br>from 5.0 to 48.0m core is commonly broken, grounded, disced, locally rusty weathering of broken portions;<br>Strong jointing at CA 70° and 40°; some at CA 5°                                                         |        |        |        |              |         |         |         |        |           |           |           |         |           |               |
| 47.60     | 120.65   | GABBRO<br>M.g., grey, v. consistent homogenous unit with joints at CA 50° (1-3/m);<br>V. little fracturing or veining; becoming slightly coarser grained downhole and lighter coloured;<br>Nil sulphides<br>Downhole contact sharp but irregular last 30cm of gabbro is weakly brecciated, f.g. with sulphides                                                                              | 44355  | 120.00 | 122.00 | 2.00         | 0.046   | 0.050   | 0.003   | 11.0   | <0.02     | <0.02     | 0.02      |         | 0.17      | 3.24          |
| 120.65    | 132.55   | MAFIC VOLCANICS<br>F.g., dark grey, weakly to moderately banding, sometimes fragmental; siliceous;<br>Generally competent unit with minor fracturing and veining; some argillite. Nil<br>to tr sulphides except in up hole portion.<br>Downhole contact sharp but irregular.<br><br>120.65- 122.20<br>5-15% f.g. Py and Po (?) as irregular fracture fillings and matrix to weakly dev. bx. |        |        |        |              |         |         |         |        |           |           |           |         |           |               |
| 132.55    | 142.40   | GABBRO<br>Grey, m.g., consistent, homogenous, equigranular, uniform, competent.<br>Nil sulphides.<br>Downhole contact subtle at CA 60°.                                                                                                                                                                                                                                                     |        |        |        |              |         |         |         |        |           |           |           |         |           |               |
| 142.40    | 190.70   | OLIVINE-PYROXENITE<br>Dark grey, m.g. to c.g., almost pyroxenite.<br>Consistent unit with some (1/1-2m) carb.                                                                                                                                                                                                                                                                               | 44356  | 179.00 | 180.70 | 1.70         | 0.51    | 0.24    | 0.014   | 1.46   | <0.02     | 0.39      | 0.75      |         | 15.47     | 2.97          |

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FALCONBRIDGE LTEE  
JOURNAL DE SONDAGE  
Propriété: DONALDSON-S

Trou no: 718-101      Zone no:      Contracteur: BRADLEY BROS.      Débuté le: 16/ 7/1990  
Canton : 8130      Terminé le: 17/ 7/1990  
Lot :      Rang :      Claim no:404536-5  
Niveau : DON/30/B      Section: 590600mE      Lieu de travail: SURFACE  
Coordonnées au collet :      Ligne : 0+00      Latitude: 6838620.32 N      Azimut: 180° 0' 0"  
Système de référence: U.T.M.      Station: 0+00      Longitude: 590599.61 E      Inclinaison: -90° 0' 0"  
Elévation: 1566.45      Longueur: 224.00 M

Arpenté par: J.HARVEY (CASING)

Tests de déviation :

| Profondeur | Inclinaison | Az Corrigé |
|------------|-------------|------------|
| 62.00 M    | -88° 0' 0"  |            |
| 74.00 M    | -88° 0' 0"  |            |
| 86.00 M    | -88°30' 0"  |            |
| 98.00 M    | -88°30' 0"  |            |
| 134.00 M   | -87°30' 0"  |            |
| 146.00 M   | -86° 0' 0"  |            |
| 158.00 M   | -86° 0' 0"  |            |
| 170.00 M   | -86° 0' 0"  |            |
| 192.00 M   | -86° 0' 0"  |            |
| 204.00 M   | -86° 0' 0"  |            |

Remarques : 44367-44370 -> split core  
condensed core:2.5-29.5 , 72.8-175 , 204-224

Débit d'eau:  
Cimenté :

Bouchon: YES  
Dimension de la carotte: BQ

| DE<br>(M) | A<br>(M) | DESCRIPTION                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Echan. | DE    | A     | Long.<br>(M) | Ni<br>% | Cu<br>% | Co<br>% | S<br>% | Au<br>g/t | Pt<br>g/t | Pd<br>g/t | Pb<br>% | Ni/S<br>% | GRAV.<br>s.g. |
|-----------|----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|-------|-------|--------------|---------|---------|---------|--------|-----------|-----------|-----------|---------|-----------|---------------|
| 0.00      | 2.50     | CASING                                                                                                                                                                                                                                                                                                                                                                                                                                                        |        |       |       |              |         |         |         |        |           |           |           |         |           |               |
| 2.50      | 29.50    | MAFIC VOLCANICS<br>Green, f.g. to m.g., variably textured from m.g. gabbroic to bxd to tuffaceous; section is broken, blocky, strongly jointed at CA 45° and 10°; local rusty weathering;<br>Nil-tr sulphides.<br>Downhole contact broken, brecciated.<br><br>19.50-20.00: Lost core.<br><br>25.50- 29.50<br>Broken, rusty weathered fault (?) contact; bx; at CA 30°.                                                                                        |        |       |       |              |         |         |         |        |           |           |           |         |           |               |
| 29.50     | 49.00    | OLIVINE-PYROXENITE?<br>Blueish-grey, f.g., consistent unit with ghostly Px oikocrysts; competent; weak serp.;<br>Tr-1% sulfs; locally remob.<br>Downhole ct bxd over 2.20m.<br><br>46.80- 49.00<br>Similar to 25.50 to 29.30 but better developed bx; 2cm clay fault gouge at 49.00.                                                                                                                                                                          |        |       |       |              |         |         |         |        |           |           |           |         |           |               |
| 49.00     | 92.80    | PERIDOTITE<br>Blueish-grey, f.g. to locally m.g.; weakly serpentinized except on slip surfaces; common carb. stringers, veinlets at CA 20°; magnetic local bands up to 40cm of m.g. tex.;<br>Nil to tr sulphides.<br><br>71.80-72.80: Downhole ct broken, blocky along strong joint at CA 5°, ghostly fragmental texture at 71.80. mod. foln at CA 10°.<br><br>83.50- 83.90<br>Unusual looking sheared bx (?).<br><br>85.40- 85.90<br>Bx: weakly dev. bx; ab. | 44367  | 85.50 | 88.00 | 2.50         | 1.04    | 0.20    | 0.019   | 3.76   | 0.05      | 0.40      | 0.67      |         | 11.04     | 3.16          |

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FALCONBRIDGE LTEE  
JOURNAL DE SONDAGE  
Propriété: DONALDSON-S

Trou no: 718-102      Zone no:      Contracteur: BRADLEY BROS.      Débuté le: 17/ 7/1990  
Canton : 8130      Terminé le: 19/ 7/1990  
Lot :      Rang :      Claim no:404536-4  
Niveau : DON/30/A      Section: 590675mE      Lieu de travail: SURFACE  
Coordonnées au collet :      Ligne : 0+00      Latitude: 6838620.17 N      Azimut: 180° 0' 0"  
Station: 0+00      Longitude: 590675.01 E      Inclinaison: -88° 0' 0"  
Système de référence: U.T.M.      Elévation: 1564.97      Longueur: 279.00 M

Arpenté par: J.HARVEY (CASING)

Tests de déviation :

| Profondeur | Inclinaison | Az Corrigé |
|------------|-------------|------------|
| 12.00 M    | -88° 0' 0"  |            |
| 24.00 M    | -87° 0' 0"  |            |
| 36.00 M    | -87° 0' 0"  |            |
| 48.00 M    | -87° 0' 0"  |            |
| 60.00 M    | -87° 0' 0"  |            |
| 72.00 M    | -87° 0' 0"  |            |
| 84.00 M    | -87° 0' 0"  |            |
| 96.00 M    | -87° 0' 0"  |            |
| 108.00 M   | -87° 0' 0"  |            |
| 120.00 M   | -86° 0' 0"  |            |
| 144.00 M   | -86° 0' 0"  |            |
| 156.00 M   | -85° 0' 0"  |            |
| 168.00 M   | -83° 0' 0"  |            |
| 180.00 M   | -83° 0' 0"  |            |
| 192.00 M   | -83° 0' 0"  |            |
| 204.00 M   | -82°30' 0"  |            |
| 216.00 M   | -82°30' 0"  |            |
| 228.00 M   | -82° 0' 0"  |            |
| 240.00 M   | -81°30' 0"  |            |
| 252.00 M   | -81° 0' 0"  |            |
| 264.00 M   | -81° 0' 0"  |            |
| 272.00 M   | -81° 0' 0"  |            |

Remarques : no sample  
condensed core:7.5-21.6 , 90.1-173.8 , 184.3-279.0

Débit d'eau:  
Cimenté :

Bouchon: YES  
Dimension de la carotte: BQ



[illegible]

FALCONBRIDGE LTEE  
JOURNAL DE SONDAGE  
Propriété: DONALDSON-S

Trou no: 718-103      Zone no:      Contracteur: BRADLEY BROS.      Débuté le: 19/ 7/1990  
Canton : 8130      Terminé le: 21/ 7/1990  
Lot :      Rang :      Claim no:404536-4  
Niveau : DON/30/A      Section: 590750mE      Lieu de travail: SURFACE  
Coordonnées au collet :      Ligne : 0+00      Latitude: 6838620.32 N      Azimut: 180° 0' 0"  
      Station: 0+00      Longitude: 590749.98 E      Inclinaison: -90° 0' 0"  
Système de référence: U.T.M.      Elévation: 1566.25      Longueur: 237.00 M

Arpenté par: J.HARVEY (CASING)

Tests de déviation :

| Profondeur | Inclinaison | Az Corrigé |
|------------|-------------|------------|
| 12.00 M    | -90° 0' 0"  |            |
| 24.00 M    | -90° 0' 0"  |            |
| 36.00 M    | -90° 0' 0"  |            |
| 48.00 M    | -89° 0' 0"  |            |
| 60.00 M    | -88° 0' 0"  |            |
| 72.00 M    | -88° 0' 0"  |            |
| 84.00 M    | -87° 0' 0"  |            |
| 96.00 M    | -87° 0' 0"  |            |
| 108.00 M   | -86° 0' 0"  |            |
| 156.00 M   | -86° 0' 0"  |            |
| 168.00 M   | -85° 0' 0"  |            |
| 180.00 M   | -85° 0' 0"  |            |
| 192.00 M   | -85° 0' 0"  |            |
| 204.00 M   | -84°30' 0"  |            |
| 216.00 M   | -84° 0' 0"  |            |

Remarques : 44371-44373 ->whole core  
cond.core -> 35.5-80.4, 138.5-178.5, 201.8-237.0

Débit d'eau:  
Cimenté :

Bouchon: YES  
Dimension de la carotte: BQ

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[illegible]

[illegible]

FALCONBRIDGE LTEE  
JOURNAL DE SONDAGE  
Propriété: DONALDSON-S

Trou no: 718-104      Zone no:      Contracteur: BRADLEY BROS.      Débuté le: 21/ 7/1990  
Canton : 8130      Terminé le: 22/ 7/1990  
Lot :      Rang :      Claim no:404536-4  
Niveau : DON/30/A      Section: 590825mE      Lieu de travail: SURFACE  
Coordonnées au collet :      Ligne : 0+00      Latitude: 6838620.33 N      Azimut: 180° 0' 0"  
Station: 0+00      Longitude: 590824.83 E      Inclinaison: -88° 0' 0"  
Système de référence: U.T.M.      Elévation: 1566.28      Longueur: 146.50 M

Arpenté par: J.HARVEY (CASING)

Tests de déviation :

| Profondeur | Inclinaison | Az Corrigé |
|------------|-------------|------------|
| 12.00 M    | -88° 0' 0"  |            |
| 24.00 M    | -88° 0' 0"  |            |
| 36.00 M    | -87°30' 0"  |            |
| 48.00 M    | -88° 0' 0"  |            |
| 60.00 M    | -88° 0' 0"  |            |
| 72.00 M    | -88° 0' 0"  |            |
| 84.00 M    | -88° 0' 0"  |            |
| 96.00 M    | -88° 0' 0"  |            |
| 108.00 M   | -87° 0' 0"  |            |
| 120.00 M   | -87°30' 0"  |            |
| 132.00 M   | -86°30' 0"  |            |
| 144.00 M   | -87° 0' 0"  |            |

Remarques : no sample  
cond. core -> 14.35-76.57

Débit d'eau:  
Cimenté :

Bouchon: YES  
Dimension de la carotte: BQ

[illegible]

[illegible]

FALCONBRIDGE LTEE  
JOURNAL DE SONDAGE  
Propriété: DONALDSON-S

Trou no: 718-105      Zone no:      Contracteur: BRADLEY BROS.      Débuté le: 22/ 7/1990  
Canton : 8130      Terminé le: 24/ 7/1990  
Lot :      Rang :      Claim no:404536-5  
Niveau : DON/30/B      Section: 590450mE      Lieu de travail: SURFACE  
Coordonnées au collet :      Ligne : 0+00      Latitude: 6838584.89 N      Azimut: 180° 0' 0"  
Station: 0+00      Longitude: 590450.10 E      Inclinaison: -90° 0' 0"  
Système de référence: U.T.M.      Elévation: 1569.44      Longueur: 182.00 M

Arpenté par: J.HARVEY (CASING)

Tests de déviation :

| Profondeur | Inclinaison | Az Corrigé |
|------------|-------------|------------|
| 12.00 M    | -90° 0' 0"  |            |
| 24.00 M    | -89° 0' 0"  |            |
| 36.00 M    | -88° 0' 0"  |            |
| 48.00 M    | -88° 0' 0"  |            |
| 60.00 M    | -89° 0' 0"  |            |
| 72.00 M    | -89° 0' 0"  |            |
| 96.00 M    | -88° 0' 0"  |            |
| 108.00 M   | -87° 0' 0"  |            |
| 120.00 M   | -86° 0' 0"  |            |
| 132.00 M   | -86° 0' 0"  |            |
| 144.00 M   | -85°30' 0"  |            |
| 156.00 M   | -85° 0' 0"  |            |
| 168.00 M   | -85° 0' 0"  |            |
| 180.00 M   | -85° 0' 0"  |            |

Remarques : 44374-44378 -> split core  
no condensed core

Débit d'eau:  
Cimenté :

Bouchon: YES  
Dimension de la carotte: BQ

[illegible]

| DE<br>(M) | A<br>(M) | DESCRIPTION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Echan.         | DE               | A                | Long.<br>(M) | Ni<br>%      | Cu<br>%      | Co<br>%        | S<br>%       | Au<br>g/t    | Pt<br>g/t    | Pd<br>g/t    | Pb<br>% | Ni/S<br>%      | GRAV.<br>s.g. |
|-----------|----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|------------------|------------------|--------------|--------------|--------------|----------------|--------------|--------------|--------------|--------------|---------|----------------|---------------|
| 130.00    | 167.30   | Some local sedimentary sulphides as wisps, blebs in argillite.<br>Downhole contact gradual from cherty, brecciated sediment (122.0-124.0) to siliceous volcanic (?) (124.00-125.00) to gabbroic (125.00-130.00).<br><br>PERIDOTITE<br>Bluish-grey, fine grained massive with minor carbonate fractures; moderately serpentine; competent core. Tr-1% sulphides except near downhole contact.<br>164.60-167.30: Pyroxenite(?) medium grained to coarse grained, nil sulphides; subtle downhole contact with volcanics(?) hornfelsed? |                |                  |                  |              |              |              |                |              |              |              |              |         |                |               |
|           |          | 161.00- 162.00<br>2-10% pyrrhotite, pentlandite                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 44374          | 161.00           | 162.00           | 1.00         | 0.65         | 0.65         | 0.021          | 2.64         | 0.08         | 1.04         | 2.62         |         | 12.31          | 3.02          |
|           |          | 162.00- 162.50<br>MASSIVE SULPHIDES<br>40cm of massive sulphides. 10-15% pentlandite eyes (1-3mm round) chalcopyrite at upper (sheared) contact; sharp lower contact at CA 90°.                                                                                                                                                                                                                                                                                                                                                     | 44375          | 162.00           | 162.50           | 0.50         | 7.99         | 0.77         | 0.11           | 29.5         | 0.03         | 4.93         | 26.4         |         | 10.53          | 4.35          |
|           |          | 162.50- 164.60<br>20-60% pyrrhotite, pentlandite; most of section is 40-60% dark fine grained sulphides as blebs or locally as poorly developed net-texture sulphides.                                                                                                                                                                                                                                                                                                                                                              | 44376<br>44377 | 162.50<br>163.50 | 163.50<br>164.60 | 1.00<br>1.10 | 2.63<br>3.93 | 0.43<br>0.86 | 0.042<br>0.062 | 9.27<br>12.7 | 0.05<br>0.05 | 1.53<br>2.16 | 2.24<br>2.68 |         | 11.23<br>12.46 | 3.27<br>3.44  |
| 167.30    | 182.00   | ARGILLITE, VOLCANICS<br>Dark, black; very fine grained, bedded at CA 80°; up hole portion of section (168.00-174.00) is lapilli tuff?<br><br>177.90- 178.80<br>Several (5-6) remob. Chalcopyrite stringers in carbonate in argillite beds at CA 80°.                                                                                                                                                                                                                                                                                | 44486          | 164.60           | 167.60           | 3.00         | 0.19         | 0.062        | 0.009          | 0.39         | 0.05         | 0.16         | 0.54         |         | 20.84          | 2.95          |
| 182.00    |          | FIN DU TROU                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 44378          | 178.90           | 179.50           | 0.60         | 0.043        | 1.45         | 0.006          | 1.88         | <0.02        | <0.02        | 0.03         |         | 4.11           | 2.94          |

[illegible]

FALCONBRIDGE LTEE  
JOURNAL DE SONDAGE  
Propriété: DONALDSON-S

Trou no: 718-106      Zone no:      Contracteur: BRADLEY BROS.      Débuté le: 24/ 7/1990  
Canton : 8130      Terminé le: 25/ 7/1990  
Lot :      Rang :      Claim no:404536-5  
  
Niveau : DON/30/A      Section: 590550mE      Lieu de travail: SURFACE  
  
Coordonnées au collet :      Ligne : 0+00      Latitude: 6838545.09 N      Azimut: 180° 0' 0"  
Station: 0+00      Longitude: 590550.36 E      Inclinaison: -90° 0' 0"  
Système de référence: U.T.M.      Elévation: 1565.68      Longueur: 159.00 M

Arpenté par: J.L.CORRIVEAU (PROPOSE)

Tests de déviation :

| Profondeur | Inclinaison | Az Corrigé |
|------------|-------------|------------|
| 12.00 M    | -90° 0' 0"  |            |
| 24.00 M    | -89° 0' 0"  |            |
| 36.00 M    | -89° 0' 0"  |            |
| 48.00 M    | -89° 0' 0"  |            |
| 60.00 M    | -89° 0' 0"  |            |
| 72.00 M    | -89° 0' 0"  |            |
| 84.00 M    | -88° 0' 0"  |            |
| 96.00 M    | -87° 0' 0"  |            |
| 120.00 M   | -86° 0' 0"  |            |
| 132.00 M   | -86° 0' 0"  |            |
| 144.00 M   | -87° 0' 0"  |            |
| 156.00 M   | -87° 0' 0"  |            |

Remarques : no sample  
cond. core ->4.5-116.8

Débit d'eau:  
Cimenté :

Bouchon: YES  
Dimension de la carotte: BQ

[illegible]

[illegible]

FALCONBRIDGE LTEE  
JOURNAL DE SONDAGE  
Propriété: DONALDSON-S

Trou no: 718-107      Zone no:      Contracteur: BRADLEY BROS.      Débuté le: 25/ 7/1990  
Canton : 8130      Rang :      Claim no:404536-5      Terminé le: 26/ 7/1990  
Lot :      Niveau : DON/30/8      Section: 590625mE      Lieu de travail: SURFACE  
Coordonnées au collet :      Ligne : 0+00      Latitude: 6838585.17 N      Azimut: 180° 0' 0"  
Système de référence: U.T.M.      Station: 0+00      Longitude: 590350.35 E      Inclinaison: -90° 0' 0"  
Elévation: 1575.38      Longueur: 192.00 M

Arpenté par: J.HARVEY (CASING)

Tests de déviation :

| Profondeur | Inclinaison | Az Corrigé |
|------------|-------------|------------|
| 12.00 M    | -90° 0' 0"  |            |
| 24.00 M    | -89° 0' 0"  |            |
| 36.00 M    | -88° 0' 0"  |            |
| 48.00 M    | -87° 0' 0"  |            |
| 60.00 M    | -86° 0' 0"  |            |
| 72.00 M    | -86° 0' 0"  |            |
| 84.00 M    | -86° 0' 0"  |            |
| 96.00 M    | -88° 0' 0"  |            |
| 108.00 M   | -89° 0' 0"  |            |
| 120.00 M   | -90° 0' 0"  |            |
| 132.00 M   | -89° 0' 0"  |            |
| 144.00 M   | -89° 0' 0"  |            |
| 156.00 M   | -89° 0' 0"  |            |
| 168.00 M   | -89° 0' 0"  |            |
| 180.00 M   | -88° 0' 0"  |            |
| 192.00 M   | -88° 0' 0"  |            |

Remarques : 44379-44388 ->split core  
no condensed core

Débit d'eau:  
Cimenté :

Bouchon: YES  
Dimension de la carotte: BQ

| DE<br>(M) | A<br>(M) | DESCRIPTION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Echan.                  | DE                      | A                       | Long.<br>(M)         | Ni<br>%              | Cu<br>%               | Co<br>%                 | S<br>%               | Au<br>g/t              | Pt<br>g/t            | Pd<br>g/t            | Pb<br>% | Ni/S<br>%               | GRAV.<br>s.g.        |
|-----------|----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------|-------------------------|-------------------------|----------------------|----------------------|-----------------------|-------------------------|----------------------|------------------------|----------------------|----------------------|---------|-------------------------|----------------------|
| 0.00      | 4.00     | CASING                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                         |                         |                         |                      |                      |                       |                         |                      |                        |                      |                      |         |                         |                      |
| 4.00      | 136.10   | PERIDOTITE<br>Bluish-grey, fine grained lighter grey (bleached) than usual; well jointed (4.0-23.0); locally massive magnetite stringers 2mm x 30mm at CA 60° for lamillae texture.<br>2-5% fine grained pyrrhotite throughout, locally remobilized.<br>4.00-23.00: Very well jointed, rusty weathering commonly broken.<br>53.50-61.40:<br>Olivine pyroxenite 50-60% Pyroxene oikocrysts; some round floating 0.5-1.0cm pyrrhotite blebs.<br><br>65.70-123.50: Massive peridotite; low density carbonate fractures usual at CA 40° and 80°; dunite? 1-2% sulfures.<br>110.00-113.70: Some (1/30cm) round 1cm floating pyrrhotite blebs.<br>124.00-130.00: Some (1/2m) broken 5-10cm sections. |                         |                         |                         |                      |                      |                       |                         |                      |                        |                      |                      |         |                         |                      |
|           |          | 23.60- 27.30<br>5-15% fine grained pyrrhotite, pentlandite disseminated and stringers.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 44379                   | 23.60                   | 27.30                   | 3.70                 | 0.92                 | 0.28                  | 0.026                   | 2.38                 | 0.13                   | 0.16                 | 0.44                 |         | 16.15                   | 2.83                 |
|           |          | 27.30- 29.00<br>20-25% fine grained developed net-texture pyrrhotite, pentlandite; lost 0.50m of core.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 44380                   | 27.30                   | 29.00                   | 1.70                 | 1.14                 | 0.28                  | 0.031                   | 2.89                 | <0.02                  | 0.21                 | 0.55                 |         | 16.10                   | 2.84                 |
|           |          | 29.00- 35.50<br>5-25% fine grained pentlandite, pentlandite as patches locally forming bands.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 44381<br>44382<br>44383 | 29.00<br>31.00<br>33.00 | 31.00<br>33.00<br>35.50 | 2.00<br>2.00<br>2.50 | 0.64<br>0.58<br>0.38 | 0.15<br>0.10<br>0.097 | 0.023<br>0.021<br>0.017 | 1.48<br>1.17<br>0.80 | <0.02<br><0.02<br>0.02 | 0.13<br>0.09<br>0.05 | 0.29<br>0.24<br>0.15 |         | 17.60<br>19.61<br>19.57 | 2.80<br>2.79<br>2.77 |
|           |          | 47.20- 50.80<br>20-25% fine grained, pyrrhotite, pentlandite as patches and disseminations.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 44384<br>44385<br>44386 | 45.00<br>47.20<br>49.00 | 47.20<br>49.00<br>50.80 | 2.20<br>1.80<br>1.80 | 0.32<br>1.52<br>1.68 | 0.069<br>0.20<br>0.29 | 0.016<br>0.039<br>0.043 | 0.68<br>4.40<br>5.11 | 0.03<br>0.02<br><0.02  | 0.05<br>0.25<br>0.25 | 0.15<br>0.63<br>0.61 |         | 19.01<br>13.50<br>13.04 | 2.79<br>2.89<br>2.94 |
|           |          | 50.80- 52.70<br>5-10% fine grained pyrrhotite,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 44387                   | 50.80                   | 52.70                   | 1.90                 | 1.05                 | 0.17                  | 0.032                   | 3.03                 | <0.02                  | 0.18                 | 0.48                 |         | 13.69                   | 2.89                 |

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[illegible]

FALCONBRIDGE LTEE  
JOURNAL DE SONDAGE  
Propriété: DONALDSON-S

Trou no: 718-108      Zone no:      Contracteur: BRADLEY BROS.      Débuté le: 27/ 7/1990  
Canton : 8130      Terminé le: 28/ 7/1990  
Lot :      Rang :      Claim no:404536-5  
Niveau : DON/30/B      Section: 590250mE      Lieu de travail: SURFACE  
Coordonnées au collet :      Ligne : 0+00      Latitude: 6838588.08 N      Azimut: 180° 0' 0"  
Station: 0+00      Longitude: 590244.85 E      Inclinaison: -90° 0' 0"  
Système de référence: U.T.M.      Élévation: 1582.27      Longueur: 216.00 M

Arpenté par: J.HARVEY (CASING)

Tests de déviation :

| Profondeur | Inclinaison | Az Corrigé |
|------------|-------------|------------|
| 12.00 M    | -90° 0' 0"  |            |
| 24.00 M    | -90° 0' 0"  |            |
| 36.00 M    | -89° 0' 0"  |            |
| 48.00 M    | -89° 0' 0"  |            |
| 60.00 M    | -89° 0' 0"  |            |
| 72.00 M    | -89° 0' 0"  |            |
| 84.00 M    | -89° 0' 0"  |            |
| 96.00 M    | -89° 0' 0"  |            |
| 108.00 M   | -89° 0' 0"  |            |
| 120.00 M   | -89° 0' 0"  |            |
| 132.00 M   | -89° 0' 0"  |            |
| 144.00 M   | -89° 0' 0"  |            |
| 156.00 M   | -89°30' 0"  |            |
| 168.00 M   | -89° 0' 0"  |            |
| 180.00 M   | -88° 0' 0"  |            |
| 192.00 M   | -88° 0' 0"  |            |
| 204.00 M   | -89° 0' 0"  |            |

Remarques : 44389-44396 -> split core (see short logs)  
no condensed core

Débit d'eau:  
Cimenté :

Bouchon: YES  
Dimension de la carotte: BQ

| DE<br>(M) | A<br>(M) | DESCRIPTION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Echan. | DE     | A      | Long.<br>(M) | Ni<br>% | Cu<br>% | Co<br>% | S<br>% | Au<br>g/t | Pt<br>g/t | Pd<br>g/t | Pb<br>% | Ni/S<br>% | GRAV.<br>s.g. |
|-----------|----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|--------|--------|--------------|---------|---------|---------|--------|-----------|-----------|-----------|---------|-----------|---------------|
| 0.00      | 3.00     | CASING                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |        |        |        |              |         |         |         |        |           |           |           |         |           |               |
| 3.00      | 191.80   | <p>PERIDOTITE</p> <p>Bluish-grey, fine grained massive, except for some 1-2m black antigorite fractures usually at CA 20°; minor carbonate; locally weakly brecciated; commonly fine grained-medium grained diabasic - textured (serpentine?) (10.00-54.00); moderately jointed; very fine grained dunitic (54.00-113.00). Nil-tr sulphides.</p> <p>6.00-10.00: Minor floating round up to 1cm pyrrhotite blebs in olivine pyroxenite section.</p> <p>3.00-6.30: Very broken blocky section.</p> <p>13.20: 60cm lost core, 10cm grounded core.</p> <p>33.60-34.50: Blocky section over 30cm.</p> <p>113.00-118.40: Olivine pyroxenite section strong broken break at 118.40 over 20cm.</p> <p>173.00-179.00: Olivine pyroxenite common carbonate fractures.</p> <p>185.50-191.80: Tr sulphides only local remobilized pyrrhotite, chalcopyrite; sections of pale green epidote? alteration; very sharp contact at CA 45°.</p> <p>69.60- 70.10 Well developed breccia with 15-20% dark serpentine matrix; peridotite fragments.</p> <p>182.70- 183.90 2-5% pyrrhotite, pentlandite</p> <p>183.90- 184.50 Semi-massive pyrrhotite, pentlandite, chalcopyrite foliated-texture; remobilized?.</p> <p>184.50- 184.90 Tr sulphides.</p> <p>184.90- 185.50 MASSIVE SULPHIDES</p> |        |        |        |              |         |         |         |        |           |           |           |         |           |               |
|           |          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 42469  | 179.70 | 182.70 | 3.00         | 0.56    | 0.29    | 0.015   | 1.44   | 0.04      | 0.45      | 1.19      |         | 17.82     | 3.09          |
|           |          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 44389  | 182.70 | 183.90 | 1.20         | 1.93    | 0.61    | 0.029   | 6.02   | 0.07      | 1.28      | 2.05      |         | 13.34     | 3.26          |
|           |          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 44390  | 183.90 | 184.50 | 0.60         | 5.25    | 4.45    | 0.063   | 18.1   | 0.14      | 1.99      | 6.05      |         | 14.35     | 3.71          |
|           |          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 44391  | 184.50 | 184.90 | 0.40         | 0.73    | 0.76    | 0.016   | 1.92   | 0.04      | 0.74      | 7.45      |         | 22.59     | 3.20          |
|           |          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 44392  | 184.90 | 185.50 | 0.60         | 12.8    | 1.41    | 0.12    | 36.3   | 0.06      | 2.74      | 5.31      |         | 13.68     | 4.71          |

[illegible]

[illegible]

FALCONBRIDGE LTEE  
JOURNAL DE SONDAGE  
Propriété: DONALDSON-S

Trou no: 718-109      Zone no:      Contracteur: BRADLEY BROS.      Débuté le: 29/ 7/1990  
Canton : 8130      Terminé le: 31/ 7/1990  
Lot :      Rang :      Claim no:404536-5  
Niveau : DON/30/B      Section: 590500mE      Lieu de travail: SURFACE  
Coordonnées au collet :      Ligne : 0+00      Latitude: 6838655.11 N      Azimut: 180° 0' 0"  
Station: 0+00      Longitude: 590500.14 E      Inclinaison: -90° 0' 0"  
Système de référence: U.T.M.      Elévation: 1568.03      Longueur: 231.00 M

Arpenté par: J.L.CORRIVEAU (PROPOSE)

Tests de déviation :

| Profondeur | Inclinaison | Az Corrigé |
|------------|-------------|------------|
| 12.00 M    | -90° 0' 0"  |            |
| 24.00 M    | -90° 0' 0"  |            |
| 36.00 M    | -90° 0' 0"  |            |
| 48.00 M    | -90° 0' 0"  |            |
| 60.00 M    | -90° 0' 0"  |            |
| 84.00 M    | -89° 0' 0"  |            |
| 96.00 M    | -89° 0' 0"  |            |
| 108.00 M   | -89° 0' 0"  |            |
| 120.00 M   | -89° 0' 0"  |            |
| 204.00 M   | -87° 0' 0"  |            |
| 216.00 M   | -87° 0' 0"  |            |
| 228.00 M   | -87° 0' 0"  |            |

Remarques : 44397-44409 -> SPLIT CORE  
condensed core: 114.0-180.0

Débit d'eau:  
Cimenté :

Bouchon: YES  
Dimension de la carotte: BQ

[illegible]

| DE<br>(M) | A<br>(M) | DESCRIPTION                                                                                                                                                                                                                                                                                                                                          | Echan. | DE     | A      | Long.<br>(M) | Ni<br>% | Cu<br>% | Co<br>% | S<br>% | Au<br>g/t | Pt<br>g/t | Pd<br>g/t | Pb<br>% | Ni/S<br>% | GRAV.<br>s.g. |
|-----------|----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|--------|--------|--------------|---------|---------|---------|--------|-----------|-----------|-----------|---------|-----------|---------------|
|           |          | Tr sulphides.<br>Downhole contact subtle but sharp at CA 70°.<br>74.50-80.00: Several broken blocky sections<br>15-20cm; well jointed.<br>96.90-104.80: Tr-1% sulphides in<br>massive peridotite strong 10cm serpentine shear<br>band CA 50° at 104.50m.<br>106.90-109.30: Altered, bleached section with<br>quartz veins and remobilized sulphides. |        |        |        |              |         |         |         |        |           |           |           |         |           |               |
|           |          | 89.20- 95.80                                                                                                                                                                                                                                                                                                                                         | 44398  | 90.00  | 93.00  | 3.00         | 1.31    | 0.42    | 0.024   | 4.73   | 0.02      | 0.88      | 2.11      |         | 11.47     | 3.11          |
|           |          | Tr-10% pyrrhotite,<br>pentlandite, chalcopyrite<br>stringers, remobilized.                                                                                                                                                                                                                                                                           | 44399  | 93.00  | 94.80  | 1.80         | 1.18    | 0.41    | 0.022   | 4.61   | 0.03      | 0.58      | 1.72      |         | 10.64     | 3.15          |
|           |          |                                                                                                                                                                                                                                                                                                                                                      | 44400  | 94.80  | 95.80  | 1.00         | 1.85    | 0.55    | 0.050   | 6.31   | 0.04      | 1.50      | 1.63      |         | 12.08     | 3.23          |
|           |          | 95.80- 96.90                                                                                                                                                                                                                                                                                                                                         | 44401  | 95.80  | 96.90  | 1.10         | 10.1    | 2.33    | 0.16    | 34.9   | 0.20      | 5.26      | 17.9      |         | 11.68     | 4.67          |
|           |          | MASSIVE SULPHIDES<br>With 30% 2-8mm pentlandite eyes<br>in bands at CA 80°, sharp<br>contacts at 60°(upper) and<br>45°(lower); broken into 10cm<br>blocks at CA 90°, chalcopyrite at<br>lower contact.                                                                                                                                               |        |        |        |              |         |         |         |        |           |           |           |         |           |               |
|           |          |                                                                                                                                                                                                                                                                                                                                                      | 44402  | 96.90  | 100.00 | 3.10         | 0.21    | 0.029   | 0.010   | 0.25   | <0.02     | 0.07      | 0.20      |         | 32.11     | 3.05          |
|           |          |                                                                                                                                                                                                                                                                                                                                                      | 44403  | 100.00 | 102.50 | 2.50         | 0.16    | 0.026   | 0.012   | 0.09   | <0.02     | 0.05      | 0.11      |         | 67.71     | 3.04          |
|           |          |                                                                                                                                                                                                                                                                                                                                                      | 44404  | 102.50 | 103.80 | 1.30         | 0.66    | 0.43    | 0.015   | 2.47   | <0.01     | 0.62      | 1.19      |         | 12.18     | 3.13          |
|           |          | 103.80- 104.70                                                                                                                                                                                                                                                                                                                                       | 44405  | 103.80 | 104.70 | 0.90         | 8.76    | 8.55    | 0.081   | 35.8   | 0.10      | 11.2      | 31.6      |         | 12.13     | 4.57          |
|           |          | MASSIVE SULPHIDE<br>Similar to 95.80-96.90.<br>10% chalcopyrite as massive<br>sections; 15% pentlandite,<br>competent core; broken into 10cm<br>blocks; lower contact CA 45°.                                                                                                                                                                        |        |        |        |              |         |         |         |        |           |           |           |         |           |               |
|           |          | 104.70- 105.00                                                                                                                                                                                                                                                                                                                                       | 44406  | 104.70 | 105.00 | 0.30         | 3.36    | 0.67    | 0.035   | 12.5   | 0.05      | 5.22      | 10.7      |         | 10.75     | 3.50          |
|           |          | 25-30%<br>pyrrhotite, pentlandite,<br>chalcopyrite in peridotite<br>between massive sections.                                                                                                                                                                                                                                                        |        |        |        |              |         |         |         |        |           |           |           |         |           |               |
|           |          | 105.00- 106.90                                                                                                                                                                                                                                                                                                                                       | 44407  | 105.00 | 106.00 | 1.00         | 12.0    | 1.76    | 0.11    | 34.4   | 0.35      | 15.9      | 48.7      |         | 13.71     | 4.69          |
|           |          | MASSIVE SULPHIDE<br>Large pentlandite eyes form<br>massive bands up to 20cm; 5%<br>chalcopyrite; competent core                                                                                                                                                                                                                                      | 44408  | 106.00 | 107.00 | 1.00         | 10.2    | 1.06    | 0.10    | 36.0   | 0.14      | 4.76      | 3.72      |         | 11.03     | 4.63          |

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FALCONBRIDGE LTEE  
JOURNAL DE SONDAGE  
Propriété: DONALDSON-S

Trou no: 718-139      Zone no:      Contracteur: BRADLEY BROS.      Débuté le: 31/ 7/1990  
Canton : 8130      Terminé le: 1/ 8/1990  
Lot :      Rang :      Claim no:404536-5  
Niveau : DON/30/B      Section: 590487.5mE      Lieu de travail: SURFACE  
Coordonnées au collet :      Ligne : 0+00      Latitude: 6838549.97 N      Azimut: 180° 0' 0"  
Station: 0+00      Longitude: 590485.36 E      Inclinaison: -90° 0' 0"  
Système de référence: U.T.M.      Elévation: 1568.62      Longueur: 155.00 M

Arpenté par: J.HARVEY (CASING)

Tests de déviation :

| Profondeur | Inclinaison | Az Corrigé |
|------------|-------------|------------|
| 12.00 M    | -90° 0' 0"  |            |
| 24.00 M    | -90° 0' 0"  |            |
| 36.00 M    | -90° 0' 0"  |            |
| 48.00 M    | -90° 0' 0"  |            |
| 60.00 M    | -89° 0' 0"  |            |
| 72.00 M    | -89° 0' 0"  |            |
| 84.00 M    | -88° 0' 0"  |            |
| 96.00 M    | -88° 0' 0"  |            |
| 108.00 M   | -87° 0' 0"  |            |
| 120.00 M   | -88° 0' 0"  |            |
| 132.00 M   | -88° 0' 0"  |            |
| 144.00 M   | -88° 0' 0"  |            |

Remarques : 44410-44411-> whole core, 44412-44414-> split core  
condensed core: 33.0-96.0

Débit d'eau:  
Cimenté :

Bouchon: YES  
Dimension de la carotte: 80

[illegible]

[illegible]

FALCONBRIDGE LTEE  
JOURNAL DE SONDAGE  
Propriété: DONALDSON-S

Trou no: 718-140      Zone no:      Contracteur: BRADLEY BROS.      Débuté le: 1/ 8/1990  
Canton : 8130      Terminé le: 6/ 8/1990  
Lot :      Rang :      Claim no:405747-4  
Niveau : DON/30/D      Section: 590600mE      Lieu de travail: SURFACE  
Coordonnées au collet :      Ligne : 0+00      Latitude: 6839410.13 N      Azimut: 180° 0' 0"  
Station: 0+00      Longitude: 590599.96 E      Inclinaison: -90° 0' 0"  
Système de référence: U.T.M.      Elévation: 1568.87      Longueur: 403.50 M

Arpenté par: J.L.CORRIVEAU (PROPOSE)

Tests de déviation :

| Profondeur | Inclinaison | Az Corrigé |
|------------|-------------|------------|
| 12.00 M    | -90° 0' 0"  |            |
| 24.00 M    | -90° 0' 0"  |            |
| 36.00 M    | -89°30' 0"  |            |
| 48.00 M    | -88° 0' 0"  |            |
| 60.00 M    | -87° 0' 0"  |            |
| 72.00 M    | -86° 0' 0"  |            |
| 84.00 M    | -84° 0' 0"  |            |
| 96.00 M    | -82° 0' 0"  |            |
| 108.00 M   | -80° 0' 0"  |            |
| 120.00 M   | -80° 0' 0"  |            |
| 132.00 M   | -76° 0' 0"  |            |
| 144.00 M   | -75° 0' 0"  |            |
| 156.00 M   | -74° 0' 0"  |            |
| 168.00 M   | -73° 0' 0"  |            |
| 180.00 M   | -70° 0' 0"  |            |
| 192.00 M   | -70° 0' 0"  |            |
| 212.00 M   | -68° 0' 0"  |            |
| 224.00 M   | -67° 0' 0"  |            |
| 236.00 M   | -67° 0' 0"  |            |
| 248.00 M   | -67° 0' 0"  |            |
| 260.00 M   | -67° 0' 0"  |            |
| 273.00 M   | -67° 0' 0"  |            |
| 285.00 M   | -67° 0' 0"  |            |
| 312.00 M   | -66° 0' 0"  |            |
| 324.00 M   | -66° 0' 0"  |            |
| 336.00 M   | -67° 0' 0"  |            |
| 348.00 M   | -68° 0' 0"  |            |
| 360.00 M   | -67° 0' 0"  |            |

Remarques : 44415-44433 -> whole core  
cond. core -> 7.00-292.3m.

Débit d'eau:  
Cimenté :

Bouchon: YES  
Dimension de la carotte: BQ

FALCONBRIDGE LTEE  
JOURNAL DE SONDAGE  
Propriété: DONALDSON-S

Trou no: 718-140      Zone no:      Contracteur: BRADLEY BROS.      Débuté le: 1/ 8/1990  
Canton : 8130      Terminé le: 6/ 8/1990  
Lot :      Rang :      Claim no:405747-4  
  
Niveau : DON/30/D      Section: 590600mE      Lieu de travail: SURFACE  
  
Coordonnées au collet :      Ligne : 0+00      Latitude: 6839410.13 N      Azimut: 180° 0' 0"  
Station: 0+00      Longitude: 590599.96 E      Inclinaison: -90° 0' 0"  
Système de référence: U.T.M.      Elévation: 1568.87      Longueur: 403.50 M

Arpenté par: J.L.CORRIVEAU (PROPOSE)

Tests de déviation :

| Profondeur | Inclinaison | Az Corrigé |
|------------|-------------|------------|
| 372.00 M   | -67° 0' 0"  |            |
| 384.00 M   | -68° 0' 0"  |            |
| 396.00 M   | -67° 0' 0"  |            |

Remarques : 44415-44433 -> whole core  
cond. core -> 7.00-292.3m.

Débit d'eau:  
Cimenté :

Bouchon: YES  
Dimension de la carotte: 8Q



[illegible]

| DE<br>(M) | A<br>(M) | DESCRIPTION                                                                                                                                                                                                                                     | Echan.                  | DE                         | A                          | Long.<br>(M)         | Ni<br>%              | Cu<br>%              | Co<br>%                 | S<br>%               | Au<br>g/t            | Pt<br>g/t            | Pd<br>g/t            | Pb<br>% | Ni/S<br>%               | GRAV.<br>s.g.        |
|-----------|----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------|----------------------------|----------------------------|----------------------|----------------------|----------------------|-------------------------|----------------------|----------------------|----------------------|----------------------|---------|-------------------------|----------------------|
|           |          | fractured, brecciated but elsewhere massive dark and very fine grained to fine grained with only local carbonate shear bands typically at CA 40<br>1-5% fine grained, very dark pyrrhotite (pentlandite)<br>Downhole contact irregular at CA 20 |                         |                            |                            |                      |                      |                      |                         |                      |                      |                      |                      |         |                         |                      |
|           |          | 293.90- 299.60<br>Distinct breccia texture in peridotite<br>Tr-2% sulphides                                                                                                                                                                     |                         |                            |                            |                      |                      |                      |                         |                      |                      |                      |                      |         |                         |                      |
|           |          | 299.60- 315.90<br>High density of fracturing filled by carbonate, serpentine, antigorite; 3-5% fine grained very dark pyrrhotite, patchy                                                                                                        |                         |                            |                            |                      |                      |                      |                         |                      |                      |                      |                      |         |                         |                      |
|           |          | 315.90- 317.80<br>Blocky, locally broken (badly) over 50cm; 3-5% pyrrhotite, pentlandite                                                                                                                                                        |                         |                            |                            |                      |                      |                      |                         |                      |                      |                      |                      |         |                         |                      |
|           |          | 318.00- 320.50<br>5-8% pyrrhotite, pentlandite in block ground along strong joint at CA 5                                                                                                                                                       | 44415<br>44416          | 318.00<br>320.00           | 320.00<br>322.00           | 2.00<br>2.00         | 0.67<br>0.99         | 0.14<br>0.30         | 0.018<br>0.025          | 1.32<br>2.01         | <0.02<br>0.02        | 0.18<br>0.31         | 0.42<br>0.86         |         | 20.45<br>20.83          | 2.87<br>2.88         |
|           |          | 320.50- 328.00<br>30-40% pyrrhotite, pentlandite, very dark, fine grained locally semi-massive in moderately jointed core with some (1/3m) strong carbonate shear at CA 30 and 10 (1-20cm)                                                      | 44417<br>44418<br>44419 | 322.00<br>324.00<br>326.00 | 324.00<br>326.00<br>328.00 | 2.00<br>2.00<br>2.00 | 3.17<br>3.21<br>2.04 | 0.93<br>0.57<br>1.02 | 0.053<br>0.046<br>0.035 | 6.71<br>6.18<br>5.52 | 0.02<br>0.05<br>0.06 | 0.85<br>1.09<br>0.59 | 1.80<br>2.33<br>1.52 |         | 19.83<br>20.59<br>16.68 | 3.03<br>3.00<br>2.99 |
|           |          | 328.00- 351.00<br>Massive, fine grained very dark peridotite becoming more pyroxenitic; locally with dark very fine grained sulphides; generally competent                                                                                      | 44420                   | 328.00                     | 330.00                     | 2.00                 | 0.41                 | 0.095                | 0.015                   | 0.77                 | <0.02                | 0.10                 | 0.21                 |         | 21.74                   | 2.85                 |
|           |          | 351.00- 363.00<br>Similar to 328.0-351.0 but with                                                                                                                                                                                               | 44421<br>44422          | 351.00<br>353.00           | 353.00<br>355.00           | 2.00<br>2.00         | 0.44<br>0.42         | 0.10<br>0.095        | 0.015<br>0.017          | 1.01<br>0.96         | <0.02<br><0.02       | 0.09<br>0.09         | 0.22<br>0.23         |         | 17.67<br>17.74          | 2.91<br>2.89         |

[illegible]

FALCONBRIDGE LTEE  
JOURNAL DE SONDAGE  
Propriété: DONALDSON-S

Trou no: 718-141      Zone no:      Contracteur: BRADLEY BROS.      Débuté le: 7/ 8/1990  
Canton : 8130      Terminé le: 9/ 8/1990  
Lot :      Rang :      Claim no:405747-4  
Niveau : DON/30/D      Section: 590550mE      Lieu de travail: SURFACE  
Coordonnées au collet :      Ligne : 0+00      Latitude: 6839425.05 N      Azimut: 180° 0' 0"  
Station: 0+00      Longitude: 590550.13 E      Inclinaison: -88° 0' 0"  
Système de référence: U.T.M.      Elévation: 1569.86      Longueur: 183.00 M

Arpenté par: J.L.CORRIVEAU (PROPOSE)

Tests de déviation :

| Profondeur | Inclinaison | Az Corrigé |
|------------|-------------|------------|
| 51.00 M    | -85° 0' 0"  |            |
| 63.00 M    | -84° 0' 0"  |            |
| 75.00 M    | -80° 0' 0"  |            |
| 87.00 M    | -75° 0' 0"  |            |
| 99.00 M    | -70° 0' 0"  |            |
| 111.00 M   | -68° 0' 0"  |            |
| 123.00 M   | -67° 0' 0"  |            |
| 135.00 M   | -66° 0' 0"  |            |
| 147.00 M   | -64° 0' 0"  |            |
| 159.00 M   | -65° 0' 0"  |            |
| 171.00 M   | -64° 0' 0"  |            |

Remarques : no sample  
cond. core -> 4.4-183m

Débit d'eau:  
Cimenté :

Bouchon: YES  
Dimension de la carotte: BQ

[illegible]

[illegible]

FALCONBRIDGE LTEE  
JOURNAL DE SONDAGE  
Propriété: DONALDSON-S

Trou no: 718-142      Zone no:      Contracteur: BRADLEY BROS.      Débuté le: 9/ 8/1990  
Canton : 8130      Terminé le: 11/ 8/1990  
Lot :      Rang :      Claim no:405747-5?  
Niveau : DON/30/D      Section: 590250mE      Lieu de travail: SURFACE  
Coordonnées au collet :      Ligne : 0+00      Latitude: 6839145.05 N      Azimut: 180° 0' 0"  
Station: 0+00      Longitude: 590244.76 E      Inclinaison: -90° 0' 0"  
Système de référence: U.T.M.      Élévation: 1570.47      Longueur: 185.00 M

Arpenté par: J.L.CORRIVEAU (PROPOSE)

Tests de déviation :

| Profondeur | Inclinaison | Az Corrigé |
|------------|-------------|------------|
| 12.00 M    | -90° 0' 0"  |            |
| 24.00 M    | -89° 0' 0"  |            |
| 36.00 M    | -89° 0' 0"  |            |
| 48.00 M    | -89° 0' 0"  |            |
| 60.00 M    | -89° 0' 0"  |            |
| 72.00 M    | -88° 0' 0"  |            |
| 84.00 M    | -89° 0' 0"  |            |
| 96.00 M    | -88° 0' 0"  |            |
| 108.00 M   | -88° 0' 0"  |            |
| 120.00 M   | -88° 0' 0"  |            |
| 132.00 M   | -89° 0' 0"  |            |
| 144.00 M   | -89° 0' 0"  |            |
| 156.00 M   | -89° 0' 0"  |            |
| 168.00 M   | -88° 0' 0"  |            |

Remarques : 44434-44440 -> split core  
no condensed core

Débit d'eau:  
Cimenté :

Bouchon: YES  
Dimension de la carotte: BQ

| DE<br>(M) | A<br>(M) | DESCRIPTION                                                                                                                                                                                                                                                                                                                            | Echan.                  | DE                         | A                          | Long.<br>(M)         | Ni<br>%              | Cu<br>%                | Co<br>%                 | S<br>%               | Au<br>g/t             | Pt<br>g/t            | Pd<br>g/t            | Pb<br>% | Ni/S<br>%               | GRAV.<br>s.g.        |
|-----------|----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------|----------------------------|----------------------------|----------------------|----------------------|------------------------|-------------------------|----------------------|-----------------------|----------------------|----------------------|---------|-------------------------|----------------------|
| 0.00      | 14.00    | CASING                                                                                                                                                                                                                                                                                                                                 |                         |                            |                            |                      |                      |                        |                         |                      |                       |                      |                      |         |                         |                      |
| 14.00     | 38.60    | MASSIVE MAFIC VOLCANICS<br>Greenish-grey, fine grained to medium grained;<br>very well jointed, broken, weathered at CA 70<br>locally foliated at CA 60, lots of grind and lost<br>core: 0.50m lost at 19.6m, 0.60m lost at 22.70m<br>0.30m lost at 25.60m 1.3m lost at 29.00m<br>NIL Tr. sulphides<br>Downhole contact sharp at CA 50 |                         |                            |                            |                      |                      |                        |                         |                      |                       |                      |                      |         |                         |                      |
| 38.60     | 178.20   | PERIDOTITE<br>Bluish-grey, fine grained to very fine grained<br>common antigorite stringers; some carbonate<br>veinlets; moderately to well jointed, locally<br>broken, disced; Tr. very fine grained sulphides;<br>minor remobilized.<br>Downhole contact very sharp at CA 20                                                         |                         |                            |                            |                      |                      |                        |                         |                      |                       |                      |                      |         |                         |                      |
|           |          | 72.50- 107.00<br>Lower density of antigorite<br>stringers and carbonate veinlets<br>in very dark, very fine grained<br>peridotite; moderately jointed<br>locally broken                                                                                                                                                                |                         |                            |                            |                      |                      |                        |                         |                      |                       |                      |                      |         |                         |                      |
|           |          | 107.00- 116.00<br>Blocky, very well jointed section                                                                                                                                                                                                                                                                                    |                         |                            |                            |                      |                      |                        |                         |                      |                       |                      |                      |         |                         |                      |
|           |          | 128.60- 132.00<br>Well jointed                                                                                                                                                                                                                                                                                                         |                         |                            |                            |                      |                      |                        |                         |                      |                       |                      |                      |         |                         |                      |
|           |          | 140.60- 141.00<br>Broken along strong joint at CA<br>10                                                                                                                                                                                                                                                                                |                         |                            |                            |                      |                      |                        |                         |                      |                       |                      |                      |         |                         |                      |
|           |          | 141.00- 146.30<br>5-10% very fine grained, dark<br>pyrrhotite, pentlandite section<br>is well jointed and locally<br>broken over 20-40 cm                                                                                                                                                                                              | 44434<br>44435<br>44436 | 141.00<br>143.00<br>145.00 | 143.00<br>145.00<br>146.30 | 2.00<br>2.00<br>1.30 | 0.61<br>0.42<br>0.44 | 0.096<br>0.070<br>0.10 | 0.017<br>0.017<br>0.015 | 0.90<br>0.62<br>0.68 | 0.03<br><0.02<br>0.05 | 0.10<br>0.07<br>0.07 | 0.33<br>0.19<br>0.21 |         | 26.46<br>26.61<br>26.47 | 2.80<br>2.78<br>2.78 |
|           |          | 146.30- 152.60<br>20-25% very fine grained, very<br>dark sulphides in very dark                                                                                                                                                                                                                                                        | 44437<br>44438<br>44439 | 146.30<br>148.30<br>150.30 | 148.30<br>150.30<br>152.60 | 2.00<br>2.00<br>2.30 | 0.65<br>0.70<br>0.69 | 0.12<br>0.13<br>0.16   | 0.016<br>0.017<br>0.020 | 1.00<br>1.12<br>1.33 | 0.03<br>0.06<br>0.14  | 0.13<br>0.13<br>0.15 | 0.42<br>0.37<br>0.43 |         | 25.85<br>24.88<br>21.17 | 2.82<br>2.81<br>2.82 |

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