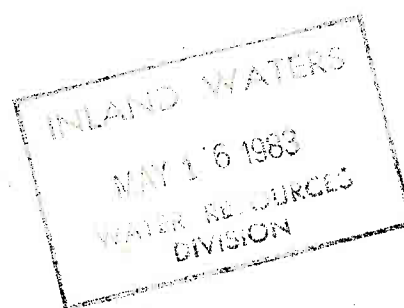




K. U. WEYER

SALT DISSOLUTION, KARST GEOLOGY, GLACIAL
EVENTS AND GROUNDWATER FLOW IN THE PINE
POINT REGION, N.W.T.

VOL. 3: TABLES AND APPENDICES



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Note: Where measurements by other agencies are quoted, results are given in the original units; if these are not in SI units, conversions are added in parentheses.

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Name	Springs		Borehole & Shaft		Rivers		
	Sulphur Point	High Point near Buffalo River	Pine Point, townsite well	Shaft N42	Little Buffalo River, at mouth	Buffalo River, one mile upstream of mouth	Hay River
Source	Camseil (1917)	Brandon (1965)	Brandon (1965)	Brandon (1965)	Brandon (1965)	Brandon (1965)	Brandon (1965)
Date	Aug. 14, 1916	July, 1960	August, 1961	July, 1960	August, 1961	July, 1960	July, 1952
Ca	480	483	125	70.0	549	21.2	52.2
Mg	130	163	86.8	28.6	31.3	7.0	13.9
Na	200	112	10.8	2.8	262	5.9	12.7
K	trace	2.9	1.8	1.0	1.7	1.1	2.0
Cl ₂	213	124	0.6	4.1	420	5.1	4.8
SO ₄	1,500	1,577	522	53.4	1,296	23.0	109
HCO ₃	370	307	184	277	128	78.0	113
SiO ₂	-	10	7.4	11	7.2	2.5	-
H ₂ S	42	-	-	-	-	-	-
pH	-	8.1	7.6	8.0	7.5	7.4	7.6
Conductivity	-	3,160	1,135	540	3,110	186	411
T(°C)	-	2.8	-	-	-	-	-
Spec. gravity (18°C)	1.002	-	-	-	-	-	-
flow (l/s)	-	~30	-	-	-	-	-
% Na	-	12	3.4	2.0	27.5	13	12.7

TABLE 1.1

Sample Number	Calcite Type	Si	Mn	Fe	Mg	Al	Cu	Ca	Na
0-42-48a3	I	80	40	50	300	100	10	5000	1800
0-42-48a7	II	600	100	50	1500	300	10	5000	10000
0-42-49	III	80	100	50	1500	100	5	1500	1800
0-42-48a5	IV	80	100	50	1500	100	10	1500	10000

TABLE 1.2

A. TRADITIONAL DESCRIPTIVE CLASSIFICATION (Ridge, 1968)

1. Type

- a. *crackle breccia*: a fabric in which there is little relative displacement of fragments
- b. *mosaic breccia*: characterized by fragments that are largely but not wholly displaced
- c. *rubble breccia*: fabric in which no fragments match

B. EXTENDED DESCRIPTIVE CLASSIFICATION (Morrow and Meijer-Drees, 1981).

1. Type

- a. *crackle breccia*: as above
- b. *mosaic breccia*: as above
- c. *rubble breccia*: as above

2. Degree of mutual proximity

- a. *packbreccia*: fragments are largely in contact
- b. *floatbreccia*: fragments are not in contact

3. Characterisation of interfragmental space of breccia

- a. *open*: unfilled void space
- b. *cemented*: void filled by chemically precipitated crystalline minerals
- c. *particulate*: void filled with discrete grains of subgranule size

Example: a *particulate rubble floatbreccia* would indicate a fabric in which fragments of chaotic orientation are suspended in fine grained fragmental matrix.

TABLE 3.1

Little Buffalo River at mouth (at highway)											
Date	Brandon(1965) July/1960	WEY 26 Sept/24/76	WEY 72 Aug/5/77	WEY 115 Aug/25/77	WEY 143 Sept/12/77	WEY 412 Sept/26/79	WEY 447 Aug/12/80	WEY 506 Sept/18/80	WEY 554 Oct/5/80	WEY 596 Aug/9/82	
Ca	549.	360.	420.	300.	400.	477.	530.	540.	560.	495	
Mg	31.3	48.	50.	35.	45.	60.	73.7	80.	86.	87.	
Na	262.	120.	140.	130.	182.	419.	498.	730.	680.	498.	
K	1.7	4.5	2.	2.	6.	2.3	2.9	2.9	2.9	3.5	
Cl	420.	59.	108.	102.	206.	589.	764.	1,000.	1,117.	704.	
SO ₄	1,296.	1,050.	930.	864.	963.	1,149.	1,420.	1,500.	1,650.	1,470.	
HCO ₃	128.	220.	168.	160.	173.	167.	107.	134.	169.	108.	
SiO ₂	7.2	6.4	6.4	6.4	8.6	3.	2.8	2.	2.7	1.9	
pH	7.5	7.8	8.18	8.20	8.00	7.79	7.78(L)	7.7	7.82(L)	7.75	
Conduc- tivity	3,110.	1,650.	2,300.	1,750.	2,100.	1,450.	4,720(L)	6,500.	5,300.	3,000.	
ZNa	27.5										

Buffalo River, close to mouth											
Buffalo River, close to mouth						Hay River at town					
Date	Brandon(1965) July/1960	WEY 28 Sept/25/76	WEY 172 Sept/27/77	WEY 224 July/27/78	WEY 532 Sept/20/80	Brandon(1965) July/1952	WEY 18 Sept/23/76	WEY 543 Sept/25/80	WEY 542 Sept/25/80		
Ca	21.2	41.	29.	20.	41.1	52.2	59.	38.	38.6		
Mg	7.	9.	8.	6.	12.5	13.9	12.	10.	10.		
Na	5.9	8.5	8.	9.	29.8	12.7	12.	10.5	10.8		
K	1.1	1.5	1.	1.	1.5	2.	2.5	.95	1.1		
Cl	5.1	1.47	5.	15.	30.	4.8	1.54	3.3	3.2		
SO ₄	23.	40.	13.	10.	60.	109.	78.	55.	60.		
HCO ₃	78.	101.	99.	66.	128.	113.	138.	123.	122.		
SiO ₂	2.5	6.4	6.4	4.3	3.	-	6.4	1.9	1.9		
pH	7.4	8.2	8.2	7.8(L)	8.01(L)	7.6	8.7	8.1	8.2		
Conduc- tivity	186.	160.	230.	180.	420.	411.	310.	290.	325.		
ZNa	13.					12.7					

	m ² /s	m ² /d	igpd/ft	USgpd/ft
m ² /s	1	1.162 * 10 ⁻⁵	5.7928 * 10 ⁶	6.9569 * 10 ⁶
m ² /d	8.64 * 10 ⁴	1	67.05	80.52
igpd/ft	1.7258 * 10 ⁻⁷	1.491 * 10 ⁻²	1	1.201
USgpd/ft	1.4375 * 10 ⁻⁷	1.242 & 10 ⁻²	0.8326	1

TABLE 4.2

Field work and Darcy's experiment, Darcy (1856)	Explanation of variables
$v = -K \frac{\Delta h}{\Delta L}$ $K = \frac{k \rho}{\eta} g$ $K = \frac{k}{v} g$	$v [LT^{-1}]$ = filter velocity, discharge velocity Δh = head difference $\Delta L [L]$ = distance $\rho [ML^{-3}]$ = density $g [LT^{-2}]$ = acceleration due to gravity $\gamma [ML^{-2}T^{-2}]$ = specific weight of the fluid
energetic treatment, Hubbert (1940)	
$\dagger \dot{q} = \sigma \text{ grad } \phi$ $\sigma = \frac{k \rho}{\eta}$	$\gamma = \rho \cdot g$ $\eta [ML^{-1}T^{-1}]$ = dynamic viscosity $\nu [L^2T^{-1}]$ = kinematic viscosity $\eta = \nu \cdot \rho$ $\dagger \dot{q} [LT^{-1}]$ = specific discharge, flow vector
experiments in laboratories, Wyckoff et al. (1933) ¹⁾ petroleum industry	$-\text{grad } \phi [LT^{-2}]$ = hydraulic force vector N = dimensionless shape factor $d (L)$ = representative grain diameter L = length M = mass T = time
$\dagger \dot{q} = -k \frac{\rho}{\eta} \text{ grad } \phi$ $k = N d^2$	k = intrinsic permeability $[L^2]$ = specific permeability k refers only to the geometric properties of the medium 1 darcy $\approx 10^{-3} \text{ cm}^2$ 1 millidarcy $\approx 10^{-11} \text{ cm}^2$
Note 1) The unit "darcy" was defined originally in terms both of an incomplete statement of Darcy's law and an inconsistent system of measurement. For details see Hubbert (1957, p. 34).	

TABLE 4.3

Mine	Orebody	Source of (1) data	Transmissivity (2)		Storage Coefficient	Average permeability (2)		Formation	Thickness of "aquifer" [m]
			Usgpd/ft	m ² /s		ft/s	cm/s		
Pine Point Mines	X-15	1	35 000	5.0×10^{-3}	0.006			PPG	-
	J-44	1	60 000	8.6×10^{-3}	0.025			K + PPG	-
	O-42	1	72 000	1.0×10^{-2}	0.035			K + PPG	-
	R-42	1	54 000	7.8×10^{-3}	0.016			K + PPG	-
	Millsite, WHS	2	185 000	2.7×10^{-2}	-			-	-
	K-57	1	41 000	5.9×10^{-3}	0.001			K + PPG	-
	A-70	1	65 000	9.3×10^{-3}	0.002	2.0×10^{-4}	6.1×10^{-3}	K + PPG	152 (3)
	W-17	1	69 000	9.9×10^{-3}	0.05	3.1×10^{-4}	9.6×10^{-3}	PPG	103 (4)
	K-62	1	69 000	9.9×10^{-3}	0.05			K + PPG	-
	Hinge Zone	1	90 000	1.3×10^{-2}	0.03			K + PPG	-
	R-61	1	37 000	5.3×10^{-3}	0.001			K + PPG	-
	J-70	1	70 000	1.0×10^{-2}	0.002			K + PPG	-
	T-58	3	76 050	1.1×10^{-2}	0.0064			K + PPG	-
	K-77	4	129 818	1.9×10^{-2}	0.0062			K + PPG	-
Western Mines	X-25	5	115 000	1.7×10^{-2}	0.000409	8×10^{-4}	2×10^{-2}	-	123.5
	R-190 median	6	869 600	<u>0.125</u>	0.0011	3.3×10^{-3}	1×10^{-1}	SPF/MM/PPG	61
	" layer 1	6	17 050	<u>0.00245</u>	0.00002	1.3×10^{-4}	4×10^{-3}	SPF/MM	10.5
	" layer 2	6	1 196 600	<u>0.172</u>	0.0015	5.2×10^{-2}	1.6×10^0	Upper K	52
	" layer 3	6	709 600	<u>0.102</u>	0.00089	6.6×10^{-3}	2×10^{-1}	Lower K	

- 1) 1: Vogwill, 1976; 2: Legette, Brashers & Graham, 1968; 3: Hills, 1977;
4: Hoffmann, 1980; 5: Golder Associates, 1979; 6: Golder Associates, 1980.
2) reported values underlined.
3) thickness of "aquifer" from Vogwill, 1976, borehole A-70-26.
4) thickness of "aquifer" from Vogwill, 1976, borehole 1920.

TABLE 4.4

Bore hole	Sample	Sub number	Actual depth ¹⁾ [ft]	Formation	Type of opening	Inlet conditions [mm]	Outlet conditions [mm]	Flow ²⁾ [ml]	Time [s]	Flux [l/min]	Average Flux 1/min m ³ /a	Photo in figure
L-42	389.7	1	389	MK	fracture	10 * 2	20 * 3	500	94 78 66.5 65 59 59 53.6 48.6 47.4	0.319 0.385 0.451 0.462 0.508 0.508 0.560 0.617 0.633	0.319 168 increasing increasing 333	4.25
C-74	893.6	2	389.2	MK	fracture	10 * 2	13 * 1.5 and 10 * 0.8	500	17.2 16.8 16.6	1.74 1.79 1.81	1.74 increasing 1.81 915 951	4.25
	930.1		930.1	UA	vug	2 * 1 oval	10 * 8 oval	200	18.6 18.2 18.4 18.2	0.645 0.659 0.652 0.659	0.654 344	4.22B
	959.8	1	959.4	UA	vug	7 * 3 rectangular	pinholes in 15 * 15 area	100	77.4 89.4 74.6	0.078 ⁴⁾ 0.067 ⁵⁾ 0.080	0.079 42	4.22C
	971.6	1	971.1	LA	vug	triangle base: 10 height: 8	triangle base: 5 height: 10	500	24.0 15.0 25.0 14.2 13.4 14.4	1.25 ⁶⁾ 2.0 ⁷⁾ 1.2 ⁶⁾ 2.11 ⁸⁾ 2.24 ⁸⁾ 2.08 ⁸⁾	1109	4.22D
	971.6	2	971.2	LA	vug	keyhole length: 15 major diameter: 5	12 * 6 oval	200	39.8 36.0 41.8	0.302 0.333 0.287	0.307 161	4.22D

Explanations: 1 - depth below surface
 2 - constant head: 43 cm H₂O
 3 - flow direction reversed
 4 - value selected for calculation of average flux
 5 - air bubbles occurred
 6 - downward flow; air bubbles occurred
 7 - downward flow; no air bubbles
 8 - upward flow; no air bubbles

BORE HOLE	ACTUAL DEPTH	DEPTH [ft]	FORMATION	ANALYST: YEAR ¹⁾	POROSITY %	WATER PERMEABILITY		AIR PERMEABILITY	
						Millidarcy	cm/s ²⁾	Millidarcy	cm/s ³⁾
CDR C-74	211-211.6	211.6 (2)	SPF	1: 1982			3.15×10^{-9}		1.07×10^{-7}
	288.7-287	288.7 (3)	WM ⁴⁾	1: 1982			7.69×10^{-9}		1.31×10^{-8}
	607.2-607.35	607.2 (1)	MK	1: 1982			1.3×10^{-9}		9.26×10^{-9}
	607.35-607.5	607.35 (4)	MK	1: 1982			3.35×10^{-9}		$< 2.31 \times 10^{-9}$
		850.4 (6)	UA	1: 1982			7.02×10^{-7}		1.45×10^{-6}
		854.1 (7)	UA	1: 1982			3.28×10^{-5}		2.26×10^{-5}
	893-893.2	893 (8)	UA	1: 1982	17.2		4.63×10^{-7}		4.84×10^{-7}
	893.3-893.4	893.4 (9)	UA	1: 1982	13.5		1.05×10^{-6}		1.47×10^{-6}
		908.5 (10)	UA	1: 1982			3.18×10^{-6}		2.3×10^{-6}
		959.6 (5)	UA	1: 1982	13.1	initial: 7.29 $\times 10^{-6}$ final: 8.16 $\times 10^{-6}$		1 psi: 7.35 $\times 10^{-6}$ 3 psi: 1.55 $\times 10^{-5}$	
		1133 (12)	LA	1: 1982			6.03×10^{-8}		3.11×10^{-7}
		1138.8 (13)	LA	1: 1982			1.04×10^{-8}		1.19×10^{-8}
		1166 (11)	LA	1: 1982			1.3×10^{-8}		1.38×10^{-8}
Iskut-K22		709 (2) 718.5 (1)	MP PC	2: 1982 2: 1982	21.2 7			4020 0.98	
Cominco G-1		19	PPG/K	3: 1954	5.3	0.06			
		38	PPG/K	3: 1954	4.0	0.06			
		136	PPG	3: 1954	1.5	0.15			
		169	PPG	3: 1954	6.4	5.1			
		188	PPG	3: 1954	16.2	12.			
		210	PPG	3: 1954	16.6	66.			
		228	PPG	3: 1954	13.3	2.6			
Pine Point Mine 36		192	PPG/K	3: 1954	10.6	0.19			
	52	201	PPG/K	3: 1954	19.3	30.			
	401	189	PPG/K	3: 1954	9.9	7.6			
	423	182	PPG/K	3: 1954	11.7	4.6			
	425	144	PPG/K	3: 1954	20.2	59.			
	426	174	PPG/K	3: 1954	23.6	213.			
	436	177	PPG/K	3: 1954	13.2	20.			
	799	124	PPG/K	3: 1954	18.2	37.			
	833	60	PPG/K	3: 1954	8.5	3.3			
	892	120	PPG/K	3: 1954	16.6	107.			
1) analyst 1: NHRI, Calgary, Alta. (Banner, Weyer) analyst 2: Core Laboratories - Canada Ltd., Calgary, Alta. analyst 3: Core Laboratories, Inc., Dallas, Texas 2) tap water used with temperature of 20°C, water boiled under vacuum for four hours, core saturated under vacuum for about eight hours. 3) permeability calculated for water of 20°C. 4) vertical fracture filled with gypsum.									

TABLE 4.6

Sample 1)	pump	filter 2)	SO ₄	HS	$\delta^{34}\text{S}_{\text{SO}_4}$	$\delta^{34}\text{S}_{\text{HS}}$	Cl	Cu	Fe	Ni	Pb	Zn
WATER												
290-1	peristaltic	G-0.45	1180	16	+18.3	-24.3	15	0.11	<0.1	0.11	0.10	0.008
290 D-C	peristaltic	G-0.45	1200									
290 F-C	peristaltic	G-0.45						0.15	0.4	0.001	0.002	0.005
290 D-S	peristaltic	G-0.45	945						<0.0003	<0.00005	<0.00002	<0.00001
290 D-U	peristaltic	G-0.45	1075						0.1			
290.1D-1	hand pump	W-40	1180						<0.1			
290.2 F-1	no pump	unf.						0.10		0.1	0.08	0.008
290.2 F-C	no pump	unf.						0.001	0.4	0.001	0.002	0.002
290.3 F-S	peristaltic	G-0.45						0.00132	0.966	<0.00005	<0.00002	<0.00001
290.4 F-S	no pump	unf.						0.7007	1.024	<0.00005	<0.00002	<0.00001
PRECIPITATES												
290	black precipitates on G-0.45 filter				+8.8							
290	rock scraping				-25.8							
FIELD MEASUREMENTS												
conduct.: 1380 $\mu\text{mhos/cm}$ pH: 7.05												
temp.: +3.4°C Eh: -255 mV												
1) Analysing laboratories C = Chemex Labs (Aberta) Ltd., Calgary, Alta. i = Diamin Laboratories, Calgary, Alberta S = Seakem Oceanography Ltd. Sidney, B.C. U = Chemistry Laboratory, University of Calgary 2) G = Gelman; W = Whatman												

TABLE 5.1

No.	Sample identifier	Bench	Elev. [ft]	Coordinates					Mineral	$\delta^{34}\text{S}_{\text{MeS}}1)$	Sample identifier	No
				Pine Point Engineering		UTM - coordinates						
				Longitude	Latitude	Zone	Easting	Northing				
1	L-37-1	1	655	96 250	122 370	11	632 754	6 757 780	galena	19.7	L-37-1	1
2	L-37-2	1	655	96 280	122 440	11	632 763	6 757 801	galena	18.6	L-37-2	2
3	L-37-3	1	660	96 490	122 420	11	632 827	6 757 798	galena	22.2	L-37-3	3
4	L-37-4	cap	675	95 600	122 100	11	632 560	6 757 690	galena	18.2	L-37-4	4
5	L-37-5	1	660	95 930	122 380	11	632 657	6 757 779	galena	20.7	L-37-5	5
6	L-37-6	1	660	96 380	122 500	11	632 792	6 757 821	galena	24.3	L-37-6	6
7	J-69-1	7	495	74 892	77 256	11	626 801	6 743 784	galena	9.4	J-69-1	7
8	J-69-2	7	495	74 883	77 287	11	626 798	6 743 794	galena	12.5	J-69-2	8
9	J-69-3	7	495	74 905	77 275	11	626 804	6 743 790	galena	11.8	J-69-3	9
10	J-69-4	7	495	74 823	77 315	11	626 779	6 743 801	galena	16.1	J-69-4	10
11	S-65-1	1	690	66 715	81 440	11	624 260	6 744 959	galena	19.1	S-65-1	11
12	S-65-2	1	690	66 767	81 450	11	624 276	6 744 962	galena	17.5	S-65-2	12
13	S-65-3	1	690	66 835	84 467	11	624 260	6 745 882	galena	16.6	S-65-3	13
14	S-65-4	1	690	66 877	81 470	11	624 309	6 744 970	galena	14.6	S-65-4	14
15	S-65-5	1	690	66 950	81 370	11	624 333	6 744 940	galena	19.1	S-65-5	15
16	S-65-6	1	690	67 000	81 293	11	624 349	6 744 917	galena	17.5	S-65-6	16
17	A-70-1	3	500	73 752	90 837	11	626 288	6 747 905	galena	20.1	A-70-1	17
18	A-70-2	3	500	73 835	90 850	11	626 313	6 747 910	galena	14.2	A-70-2	18
19	A-70-3	3	500	73 747	90 712	11	626 288	6 747 867	galena	19.0	A-70-3	19
20	A-70-4	3	500	74 230	90 530	11	626 438	6 747 818	galena	14.8	A-70-4	20
21 ²⁾	A-70-4	3	500	74 230	90 530	11	626 438	6 747 818	pyrite	13.6	A-70-4	21 ²⁾

1) MeS = Metal sulfide; specimens were hand-selected.
2) same sample as number 20

1) MeS = Metal sulfide; specimens were hand-selected.

2) same sample as number 20

TABLE 5.2

Sample	Location	Sampling date	Minerals ¹⁾	Trace elements (in ppm range)	Results
A ²⁾	Pit W-17, well 13	July 7, 1978	gypsum, sulphur (orthorh.), quartz < 3%, mica < 3%	Cu, Zn, Ni, Pb, Sr.	well not discharging, yellowish precipitate taken from soil cover.
B ²⁾	Pit T-58, well 1	July 7, 1978	sulphur, quartz 10%, mica 5%, chloride < 5%	Cu, Zn, Cl, Pb, Sr.	well discharging, yellowish precipitate taken from algae (?) on rocks in bed of discharge channel.
C ²⁾	Pit R-61, well 5	July 7, 1978	sulphur	Cu, Zn, Pb, Sr.	well discharging, yellowish precipitate taken from soil at discharge paint.
D	Pit R-61 well 10	July 7, 1978	hematite, calcite, gypsum (much organic material)	Cu, Zn, Ni, Pb, Sr.	well not discharging, remnants of black precipitate taken from bed of discharge channel (under water); with some organic material (peat).
1) main minerals underlined 2) samples A, B and C may have contained a small fraction of soil.					

TABLE 5.3

Open pit	Sampling period	Number of samples	H ₂ S mg/l	Analysis laboratory
W-17	1977, Aug. 4	1	5.5	Diamin
	1977, Aug. 22-25	34	5.7 - 22.0 ¹	Diamin
	1978, July 28	1	8.0	Diamin
	1978, Oct. 15	17	7.0 - 27.0	Diamin
	1979, Sept. 29	2	3.4, 6.4	Chemex
X-15	1978, Sept. 12	2	13.0, 13.0	Diamin
	1978, Oct. 15	2	6.0, 13.0	Diamin
R-61	1977, Aug. 3, 5	13	8.3 - 19.5	Diamin
	1977, Oct. 2	1	13.0	Diamin
	1978, Oct. 5	10	16.0 - 26.0	Diamin
	1979, Sept. 20	9	11.2 - 20.0	Chemex
	1980, Sept. 17, 19	12	15.4 - 21.8 (41.5 ²)	Chemex
T-58	1977, Aug. 3, 5	5	10.7 - 15.2 (20.7 ²)	Diamin
	1978, Sept. 11	1	24.0 ²	Diamin
	1978, Oct. 6	12	10.0 - 19.0	Diamin
S-65	1979, Sept. 28	1	5.8	Chemex
	1980, Sept. 17	7	10.9 - 18.1 (25.0 ²)	Chemex
A-55	1980, Sept. 19, 20, 23	14	3.3-16.3 (22.6 ³)	Chemex
	1980, Sept. 19	1	47.8 ⁴	Chemex
A-70	1979, Sept. 20	2	27.6, 35.1	Chemex
	1979, Sept. 28, 30, Oct. 2	18	18.1 - 48.4	Chemex
	1980, Sept. 17, 19	24	22.6 - 53.2	Chemex
J-69	1978, Sept. 13	1	16.0	Diamin
	1978, Oct. 7	13	12.0 - 28.0	Diamin
	1979, Sept. 21-23	15	12.2 - 21.8	Chemex
K-77, pump test	1980, Oct. 4-21	15	42.5 - 52.1	Chemex
Notes: 1. corrected as in table 2. in discharge channel 3. nearby installed well 4. A-55, WH-7, sample 512C				

TABLE 5.4

Average discharge 1) USgm l/s		Open pit No.	Date	Number of samples	Average H ₂ S	Discharge channel H ₂ S	Remarks
10,400	660	R-61	1977, Aug.	13	14.4	18.2	at S-65 haul road
8,800	555	R-61	1980, Sept.	11	18.9	41.5	at P.P. highway
3,200	202	T-58	1977, Aug.	4	12.8	20.7	at P.P. highway
9,600	605	T-58	1978, Sept./ Oct.	12	15.5	24.0	at haul road to mill
3,200	202	S-65	1980, Sept.	4	16.7	25.0	at P.P. highway
26,400	1665	W-17	1977, Aug.	33	11.0	16.0	at Resolution highway
11,200	706	A-55	1980, Sept.	14	13.9	5.8 ²⁾	at discharge metering bridge

1) Calculated by assuming an average approximate discharge value of 800 USgm (50.5 l/s) per borehole.

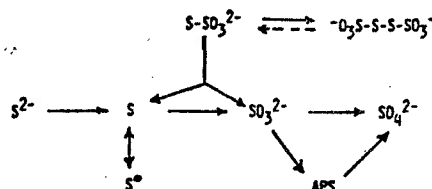
2) Water in discharge channel full of sediment because of road-building activity by a bulldozer.

TABLE 5.5

Sample No.	Borehole No.	Date	Chemistry					Sulphur isotopes ‰ CDT		Bacterial population, MPN/100 ml		
			HCO ₃ mg/l	TIC mg/l	TOC mg/l	SO ₄ ²⁻ mg/l	H ₂ S mg/l	$\delta^{34}\text{S}_{\text{SO}_4^{2-}}$	$\delta^{34}\text{S}_{\text{HS}^-}$	Organic sulfur reducers	Thio- bacilli	Desulfo- vibrio
465	S-65-1	1980, Sept. 17	300.	4.8	51.5	1100.	16.5	19.9	-23.5	-	470	-
466	S-65-3	1980, Sept. 17	359.	4.8	56.5	1300.	15.9	20.1	-22.0	-	3,500	-
467	S-65-4	1980, Sept. 17	314.	4.8	56.5	1200.	18.1	20.0	-21.7	-	-	-
468	S-65-2	1980, Sept. 17	294.	4.5	54.5	1300.	16.2	19.9	-22.3	80	330	-
537	DC	1980, Sept. 20	295.	4.5	56.0	1450.	10.9	20.0	-23.3	330	7,000	50
538	DC	1980, Sept. 20	298.	4.8	54.0	1450.	15.4	20.2	-27.6	230	7,900	-
539	DC	1980, Sept. 20	303.	4.5	55.0	1450.	25.0	20.5	-18.9	330	170	-

TABLE 5.6

A. Patterns of inorganic sulphur oxidation by thiobacilli



B. Reactions of significance in the biological oxidation of sulphate minerals.

	F' (kJ mol ⁻¹)
Reactions yielding energy for growth	
$H_2S + 2 O_2 \rightarrow H_2SO_4$	669
$S^0 + 1.5 O_2 + H_2O \rightarrow H_2SO_4$	494
$S_2O_3^{2-} + 2 O_2 + H_2O \rightarrow 2 SO_4^{2-} + 2 H^+$	883
$5 S_2O_3^{2-} + 8 NO_3^- + H_2O \rightarrow 10 SO_4^{2-} + 4 N_2 + 2 H^+$	3736
$SO_3^{2-} + 0.5 O_2 \rightarrow SO_4^{2-}$	251
$4 FeSO_4 + 2 H_2SO_4 + O_2 \rightarrow 2 Fe_2(SO_4)_3 + 2 H_2O$	117
Reactions involving iron	
$FeS_2 + 3.5 O_2 + H_2O \rightarrow Fe^{2+} + 2 SO_4^{2-} + 2 H^+$	
$Fe^{2+} + 0.25 O_2 + H^+ \rightarrow Fe^{3+} + 0.5 H_2O$	
$Fe^{3+} + 3 H_2O \rightarrow Fe(OH)_3 + 3 H^+$	
$FeS_2 + 14 Fe^{3+} + 8 H_2O \rightarrow 15 Fe^{2+} + 2 SO_4^{2-} + 16 H^+$	
$FeS_2 + Fe_2(SO_4)_3 \rightarrow 3 FeSO_4 + 2 S^0$	
General ferric sulphate leaching reaction	
$2 RS + 2 Fe_2(SO_4)_3 + 2 H_2O + 3 O_2 \rightarrow 2 RSO_4 + 4 FeSO_4 + 2 H_2SO_4$	

TABLE 5.7

Sample Number	Time of Sampling	Organic S Reducers MPN/100 ml	Thiobacilli MPN/100 ml	Desulfovibrio MPN/100 ml	T/F ferrooxidans MPN/100 ml
549C	Oct. 4, 1980	<20	1,100	<20	<20
550C	Oct. 4, 1980	<20	380	<20	<20
551C	Oct. 4, 1980	20	140	<20	<20
553C	Oct. 5, 1980	130	700	<20	<20
555C	Oct. 5, 1980	20	70	<20	<20
557C	Oct. 6, 1980	20	110	<20	<20
558C	Oct. 7, 1980	20	70	<20	<20
MPN - Most Probable Number					
T/F - Thiobacillus/Ferrobacillus					

TABLE 5.8

Measurement site	time	flow	difference
1. Discharge channel S-65, 100 m downstream of W.H. 1	T = 15:10	78.4 L/s 1243 USgpm	1-2: +0.3 L/s +4.0 USgpm +0.4%
2. Discharge channel S-65, at Hay River highway	T = 17:04	78.7 L/s 1247 USgpm	

TABLE 5.9

Year Month	1975			1976			1977			1978			1979		
	pumps	USGPM	L/s	pumps	USGPM	L/s	pumps	USGPM	L/s	pumps	USGPM	L/s	pumps	USGPM	L/s
January	17	13600	858	22	17600	1110	27	21600	1363	16	12800	807	17	13600	858
February	17	13600	858	22	17600	1110	27	21600	1363	2	1600	101	1	800	50
March	16	12800	807	23	18400	1161	26	20800	1312	4	3200	202	1	800	50
April	18	14400	908	23	18400	1161	28	22400	1413	8	6400	404	1	800	50
May	20	16000	1009	22	17600	1110	28	22400	1413	9	7200	454	9	7200	454
June	20	16000	1009	21	16800	1060	28	22400	1413	15	12000	757	11	8800	555
July	20	16000	1009	25	20000	1262	30	24000	1514	17	13600	858	11	8800	555
August	22	17600	1110	24	19200	1211	30 ²⁾ 24 ²⁾ 19 ²⁾	24000 19200 15200	1514 1211 959	17	13600	858	11 ³⁾	8800	555
September	22	17600	1110	25	20000	1262	19	15200	959	17	13600	858			
October	21	16800	1060	25	20000	1262	22	17600	1110	16	12800	807			
November	21	16800	1060	26	20800	1312	18	14400	908	16	12800	807			
December	23	18400	1161	28	22400	1413	16	12800	807	16	12800	807			

Notes: 1 - average pump discharge of 800 USGPM assumed

2 - 30 pumps: Aug. 1-19; 24 pumps: Aug. 9-24; 19 pumps: Aug 24-31

3 - Aug. 1-7; shut down of W-17 on August 7, 1979

TABLE 5.10

Appendix 1

Documentation and evaluation of discharge measurements
at open pits S-65, October 1, 1979. 12 pages.

General considerations

Dewatering of the open pit S-65 was mainly achieved by pumping at the nearby open pit R-61. In October 1979 only one pump (WH 1) was operational at S-65. It had discharged water into the dewatering ditch for more than one year before the time of measurement. The results of the measurements are reported in Table 5-9 of the main report.

The length of the ditch between the measuring sites was about 1.2 km (see Figure 5-26 of main report). Although the first two hundred meters were excavated in sand most of the rest is positioned in peat moss.

Error considerations

The documentation and calculation of the discharge measurements are contained in Table 1 and the diagrams of the measurements in Figures 1 and 2. The size of the velocities were favorable for obtaining accurate results. The velocity areas of measurement 1 show the influence of irregular flow distribution. Its effect on the result of the measurement seems to have been compensated for as indicated by the relatively smooth shape of the volume area of measurement 1.

The shapes of the velocity areas of measurement 2 at 120 cm, 130 cm and 140 cm show the influence of irregular flow distribution. The shape of the volume area suggests that an additional measurement between 140 and 160 cm might have increased the measured volume slightly.

Magnitude of return-flow

No. 1 - 78.4 l/s

No. 2 - 78.7 l/s

According to these measurements the dewatering channel would gain 0.3 l/s in the 1.2 km stretch between measurements 1 and 2. Error considerations indicate, however, that the result of measurement 1 could be increased slightly.

Consequently, it is concluded that the discharge at sites 1 and 2 were practically the same. In the dewatering ditch of S-65 return-flow does not occur from the ditch to the karstic system underneath and to the dewatering pump. Similar results were obtained by Weyer and Horwood (1979) and Weyer and Horwood (1980).

References

Weyer, K. U. and Horwood, W. C. 1979. Measurement of return-flow from ditches at Pine Point Mines, N.W.T. Unpublished report to Pine Point Mines.

Weyer, K. U. and Horwood, W. C. 1980. Return flow from dewatering ditches of the open pits W-17 and S-65 at Pine Point Mines, N.W.T. Unpublished report to Pine Point Mines.

Table 1

Documentation and calculation of discharge measurements at

open pits S-65.

SUMMARY OF RESULTS

DISCHARGE MEASUREMENTS PINE POINT NEAR S65, OCT.01,1979

1.DISCHARGE CHANNEL S65, AT HAY RIVER HIGHWAY, OCT.01/79 T:17.04
*** THE DISCHARGE IS 78.7 L/S ***

2.DISCHARGE CHANNEL S65, 100M. DOWNSTREAM OF WH.1, OCT.01/79 T:15.10
*** THE DISCHARGE IS 78.4 L/S ***

DOCUMENTATION AND CALCULATIONS

DISCHARGE MEASUREMENTS PINE POINT NEAR S65, OCT.01,1979

PROPELLOR DESCRIPTIONS FOR CURRENT METER (OTT C1) USED:

PROPELLOR 1 (CODE: 19279-6) HAS EQUATIONS

FOR N <= 1.6100
V = 0.0798*N + 0.0737 (S.E.=0.00212)
FOR 1.6100 < N < 2.4700
V = 0.0954*N + 0.0486 (S.E.=0.00041)
FOR N >= 2.4700
V = 0.1023*N + 0.0317 (S.E.=0.00170)

PROPELLOR 2 (CODE: 584-2) HAS EQUATIONS

FOR N <= 0.6100
V = 0.0797*N + 0.0368 (S.E.=0.00054)
FOR 0.6100 < N < 1.8300
V = 0.0947*N + 0.0276 (S.E.=0.00111)
FOR N >= 1.8300
V = 0.1020*N + 0.0144 (S.E.=0.00138)

PROPELLOR 3 (CODE: 23295-3) HAS EQUATIONS

FOR N <= 0.2900
V = 0.1777*N + 0.0469 (S.E.=0.00086)
FOR 0.2900 < N < 0.8300
V = 0.2237*N + 0.0334 (S.E.=0.00138)
FOR N >= 0.8300
V = 0.2547*N + 0.0076 (S.E.=0.00147)

EXPLANATION OF VARIABLES SHOWN IN TABLES:

CM=CENTIMETRES

DEPTH=DEPTH MEASURED FROM BOTTOM OF CREEK TO WATER

SURFACE, LAST NUMBER IS TOTAL DEPTH OF CREEK

DISTANCE=DISTANCE MEASURED FROM LEFT TO RIGHT BANK,

LOOKING UPSTREAM, FIRST DISTANCE IN CROSSECTION

STANDS FOR LEFT BANK, LAST DISTANCE FOR RIGHT BANK

L=LITRES

M=METRES

N=NUMBER OF REVOLUTIONS/SECOND, AS MEASURED

PROP=PROPELLOR NUMBER

REV=REVOLUTIONS

S=SECONDS

V=VELOCITY IN METRES/SECOND

NUMBER OF DISCHARGE STATIONS: 2

 1.DISCHARGE CHANNEL S65, AT HAY RIVER HIGHWAY, OCT.01/79 T:17.04

NUMBER OF MEASUREMENT PROFILES: 14

CROSSECTION OF THE CREEK:

LEFT TO RIGHT BANK IN CM, LOOKING UPSTREAM, TOTAL WIDTH = 155.0 CM

DISTANCE (CM)	115.0	120.0	130.0	140.0	150.0	160.0	175.0
DEPTH (CM)	13.0	16.0	22.0	22.0	27.0	32.0	32.0

DISTANCE (CM)	185.0	200.0	210.0	220.0	230.0	240.0	249.0
DEPTH (CM)	31.0	28.0	24.0	23.0	19.0	15.0	12.0

DISTANCE (CM)	255.0	270.0
DEPTH (CM)	5.0	0.0

MEASUREMENTS AND RESULTS:

DISTANCE CM	DEPTH CM	REV	SECONDS	REV/S	PROP	VELOCITY CM/S
120.0	4.0	70.	67.6	1.04	2	12.6
	8.0	70.	60.9	1.15	2	13.6
	13.0	70.	59.1	1.18	2	14.0
	16.0	--VELOCITY AREA IS 0.02011 M**2/S--				
130.0	4.0	70.	63.4	1.10	2	13.2
	11.0	70.	37.8	1.85	2	20.3
	19.0	70.	47.0	1.49	2	16.9
	22.0	--VELOCITY AREA IS 0.03545 M**2/S--				
140.0	4.0	70.	37.6	1.86	2	20.4
	9.0	70.	29.7	2.36	2	25.5
	14.0	70.	31.2	2.24	2	24.3
	19.0	70.	35.9	1.95	2	21.3
150.0	22.0	--VELOCITY AREA IS 0.04760 M**2/S--				
	4.0	70.	27.2	2.57	2	27.7
	9.0	70.	24.3	2.88	2	30.8
	14.0	70.	25.3	2.77	2	29.7
160.0	19.0	70.	28.1	2.49	2	26.8
	24.0	70.	33.6	2.08	2	22.7
	27.0	--VELOCITY AREA IS 0.07100 M**2/S--				
	4.0	70.	31.6	2.22	2	24.0
175.0	9.0	70.	26.2	2.67	2	28.7
	15.0	70.	24.3	2.88	2	30.8
	22.0	70.	23.3	3.00	2	32.1
	29.0	70.	29.0	2.41	2	26.1
175.0	32.0	--VELOCITY AREA IS 0.08805 M**2/S--				
	4.0	70.	28.2	2.48	2	26.8
	8.0	70.	26.9	2.60	2	28.0
	13.0	70.	24.7	2.83	2	30.3

	18.0	70.	24.7	2.83	2	30.3
	23.0	70.	22.3	3.14	2	33.5
	29.0	70.	22.0	3.18	2	33.9
	32.0	--VELOCITY AREA IS 0.09506 M**2/S--				
185.0	4.0	70.	31.7	2.21	2	24.0
	8.0	70.	30.6	2.29	2	24.8
	13.0	70.	29.1	2.41	2	26.0
	18.0	70.	25.7	2.72	2	29.2
	23.0	70.	22.6	3.10	2	33.0
	28.0	70.	22.5	3.11	2	33.2
	31.0	--VELOCITY AREA IS 0.08549 M**2/S--				
200.0	4.0	70.	34.6	2.02	2	22.1
	8.0	70.	31.6	2.22	2	24.0
	13.0	70.	27.3	2.56	2	27.6
	19.0	70.	24.8	2.82	2	30.2
	25.0	70.	24.1	2.90	2	31.1
	28.0	--VELOCITY AREA IS 0.07381 M**2/S--				
210.0	4.0	70.	31.2	2.24	2	24.3
	8.0	70.	28.1	2.49	2	26.8
	12.0	70.	27.6	2.54	2	27.3
	16.0	70.	26.8	2.61	2	28.1
	21.0	70.	26.5	2.64	2	28.4
	24.0	--VELOCITY AREA IS 0.06207 M**2/S--				
220.0	4.0	70.	31.4	2.23	2	24.2
	8.0	70.	29.7	2.36	2	25.5
	12.0	70.	32.0	2.19	2	23.8
	16.0	70.	32.8	2.13	2	23.2
	20.0	70.	34.8	2.01	2	22.0
	23.0	--VELOCITY AREA IS 0.05190 M**2/S--				
230.0	4.0	70.	36.5	1.92	2	21.0
	8.0	70.	35.6	1.97	2	21.5
	12.0	70.	41.0	1.71	2	18.9
	16.0	70.	45.3	1.55	2	17.4
	19.0	--VELOCITY AREA IS 0.03519 M**2/S--				
240.0	4.0	70.	49.8	1.41	2	16.1
	8.0	70.	44.7	1.57	2	17.6
	12.0	70.	50.0	1.40	2	16.0
	15.0	--VELOCITY AREA IS 0.02290 M**2/S--				
249.0	4.0	70.	48.3	1.45	2	16.5
	7.0	70.	46.8	1.50	2	16.9
	10.0	70.	50.7	1.38	2	15.8
	12.0	--VELOCITY AREA IS 0.01797 M**2/S--				
255.0	3.0	70.	64.9	1.08	2	13.0
	5.0	--VELOCITY AREA IS 0.00551 M**2/S--				

THE DISCHARGE IS 78.7 L/S.

STATISTICS:

NUMBER OF PROFILES	14
NUMBER OF MEASUREMENT POINTS	58
AREA OF CROSSECTION	0.3345 M**2
AVERAGE DEPTH	21.6 CM
AVERAGE VELOCITY	23.5 CM/S
AVERAGE FLUX PER MEASUREMENT POINT	1.36 L/S
AVERAGE AREA RELATED TO MEASUREMENT POINT	57.7 CM**2
AVERAGE NUMBER OF POINTS PER PROFILE	4.1

 2.DISCHARGE CHANNEL S65, 100M. DOWNSTREAM OF WH.1, OCT.01/79 T:15.10

NUMBER OF MEASUREMENT PROFILES: 12

CROSSECTION OF THE CREEK:

LEFT TO RIGHT BANK IN CM, LOOKING UPSTREAM, TOTAL WIDTH = 205.0 CM

DISTANCE (CM)	115.0	120.0	130.0	140.0	160.0	170.0	190.0
DEPTH (CM)	10.0	11.0	13.0	17.5	25.5	26.0	24.0
DISTANCE (CM)	210.0	230.0	250.0	270.0	285.0	300.0	320.0
DEPTH (CM)	23.0	22.0	23.5	25.0	18.0	11.0	0.0

MEASUREMENTS AND RESULTS:

DISTANCE CM	DEPTH CM	REV	SECONDS	REV/S	PROP	VELOCITY CM/S
120.0	4.0	90.	121.0	0.74	2	9.8
	8.0	90.	156.5	0.58	2	8.3
	11.0	--VELOCITY AREA IS 0.00886 M**2/S--				
130.0	4.0	90.	60.6	1.49	2	16.8
	7.0	90.	78.0	1.15	2	13.7
	10.0	90.	114.3	0.79	2	10.2
	13.0	--VELOCITY AREA IS 0.01575 M**2/S--				
140.0	4.0	90.	43.3	2.08	2	22.6
	7.0	90.	45.2	1.99	2	21.7
	10.0	90.	49.2	1.83	2	20.1
	14.0	90.	77.0	1.17	2	13.8
	17.5	--VELOCITY AREA IS 0.03039 M**2/S--				
160.0	4.0	90.	53.6	1.68	2	18.7
	10.0	90.	40.4	2.23	2	24.2
	16.0	90.	36.4	2.47	2	26.7
	23.0	90.	38.7	2.33	2	25.2
	25.5	--VELOCITY AREA IS 0.05805 M**2/S--				
170.0	4.0	90.	57.2	1.57	2	17.7
	10.0	90.	42.5	2.12	2	23.0
	16.0	90.	37.3	2.41	2	26.1
	23.0	90.	39.3	2.29	2	24.8
	26.0	--VELOCITY AREA IS 0.05739 M**2/S--				
190.0	4.0	90.	56.1	1.60	2	18.0
	10.0	90.	43.4	2.07	2	22.6
	16.0	90.	39.0	2.31	2	25.0
	21.0	90.	38.1	2.36	2	25.5
	24.0	--VELOCITY AREA IS 0.05211 M**2/S--				
210.0	4.0	90.	53.1	1.69	2	18.8
	9.0	90.	42.3	2.13	2	23.1
	14.0	90.	39.0	2.31	2	25.0
	20.0	90.	38.1	2.36	2	25.5

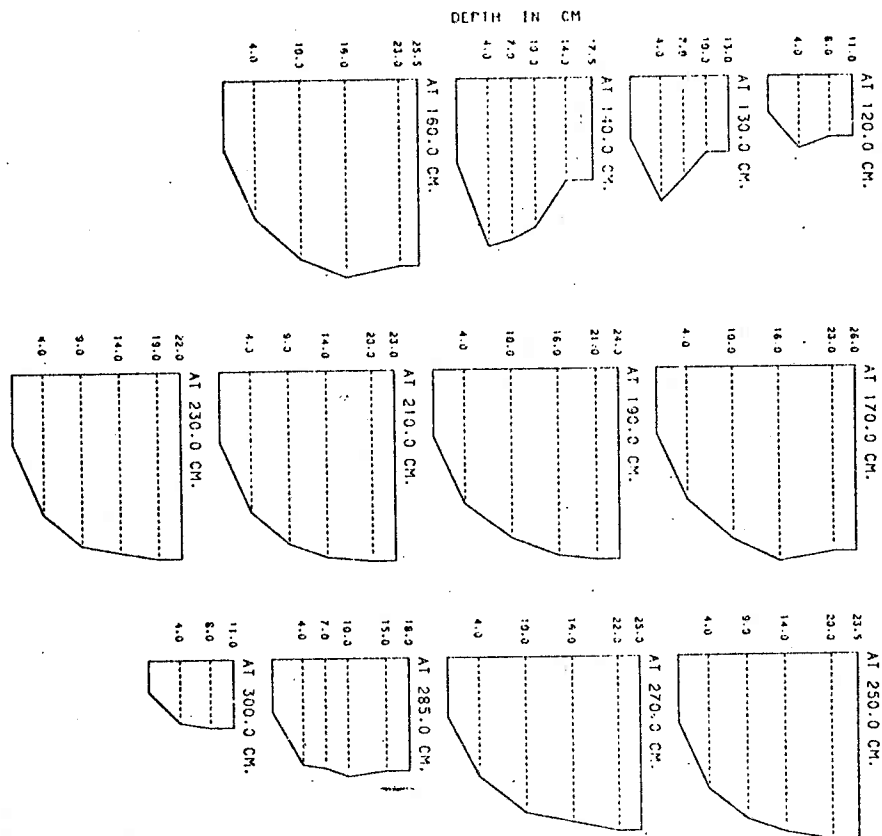
	23.0	--VELOCITY AREA IS 0.05098 M**2/S--				
230.0	4.0	90.	52.9	1.70	2	18.9
	9.0	90.	42.3	2.13	2	23.1
	14.0	90.	40.5	2.22	2	24.1
	19.0	90.	39.0	2.31	2	25.0
	22.0	--VELOCITY AREA IS 0.04774 M**2/S--				
250.0	4.0	90.	55.8	1.61	2	18.0
	9.0	90.	44.4	2.03	2	22.1
	14.0	90.	40.8	2.21	2	23.9
	20.0	90.	38.9	2.31	2	25.0
	23.5	--VELOCITY AREA IS 0.05042 M**2/S--				
270.0	4.0	90.	64.0	1.41	2	16.1
	10.0	90.	46.9	1.92	2	21.0
	16.0	90.	44.1	2.04	2	22.3
	22.0	90.	41.6	2.16	2	23.5
	25.0	--VELOCITY AREA IS 0.04971 M**2/S--				
285.0	4.0	90.	73.7	1.22	2	14.3
	7.0	90.	70.7	1.27	2	14.8
	10.0	90.	64.7	1.39	2	15.9
	15.0	90.	68.5	1.31	2	15.2
	18.0	--VELOCITY AREA IS 0.02556 M**2/S--				
300.0	4.0	90.	149.1	0.60	2	8.5
	8.0	90.	132.7	0.68	2	9.2
	11.0	--VELOCITY AREA IS 0.00884 M**2/S--				

 THE DISCHARGE IS 78.4 L/S.

STATISTICS:

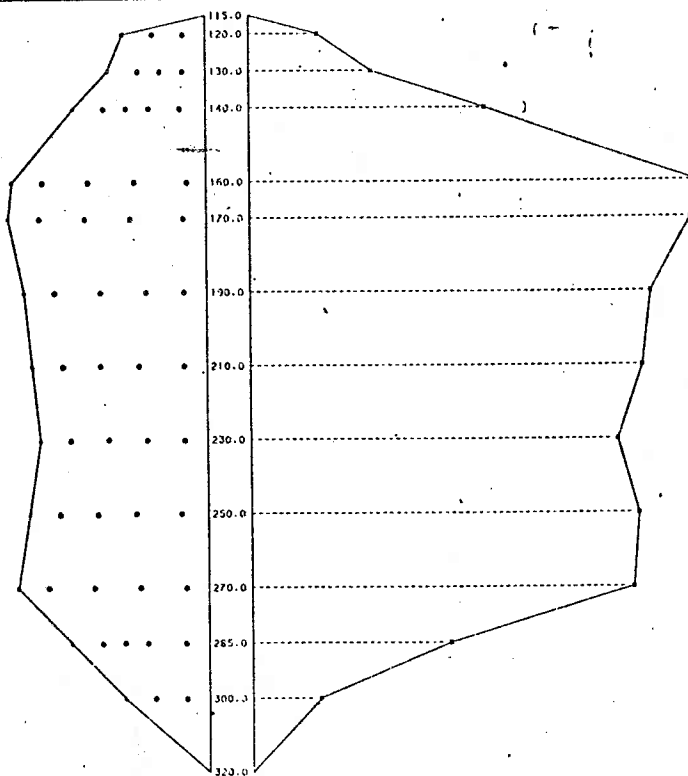
NUMBER OF PROFILES	12
NUMBER OF MEASUREMENT POINTS	43
AREA OF CROSSSECTION	0.4023 M**2
AVERAGE DEPTH	19.6 CM
AVERAGE VELOCITY	19.5 CM/S
AVERAGE FLUX PER MEASUREMENT POINT	1.82 L/S
AVERAGE AREA RELATED TO MEASUREMENT POINT	93.5 CM**2
AVERAGE NUMBER OF POINTS PER PROFILE	3.6

RUNOFF MEASUREMENTS PINE POINT NEAR S65. OCT. 01, 1979
 1. DISCHARGE CHANNEL S65, 100M. DOWNSTREAM OF WH. 1, OCT. 01/79 1:15.10



DEPTH PROFILE OF CREEK
 1 CM VERTICAL = 5 CM DEPTH
 1 CM HORIZONTAL = 10 CM WIDTH
 DOTS = MEASUREMENT POINTS

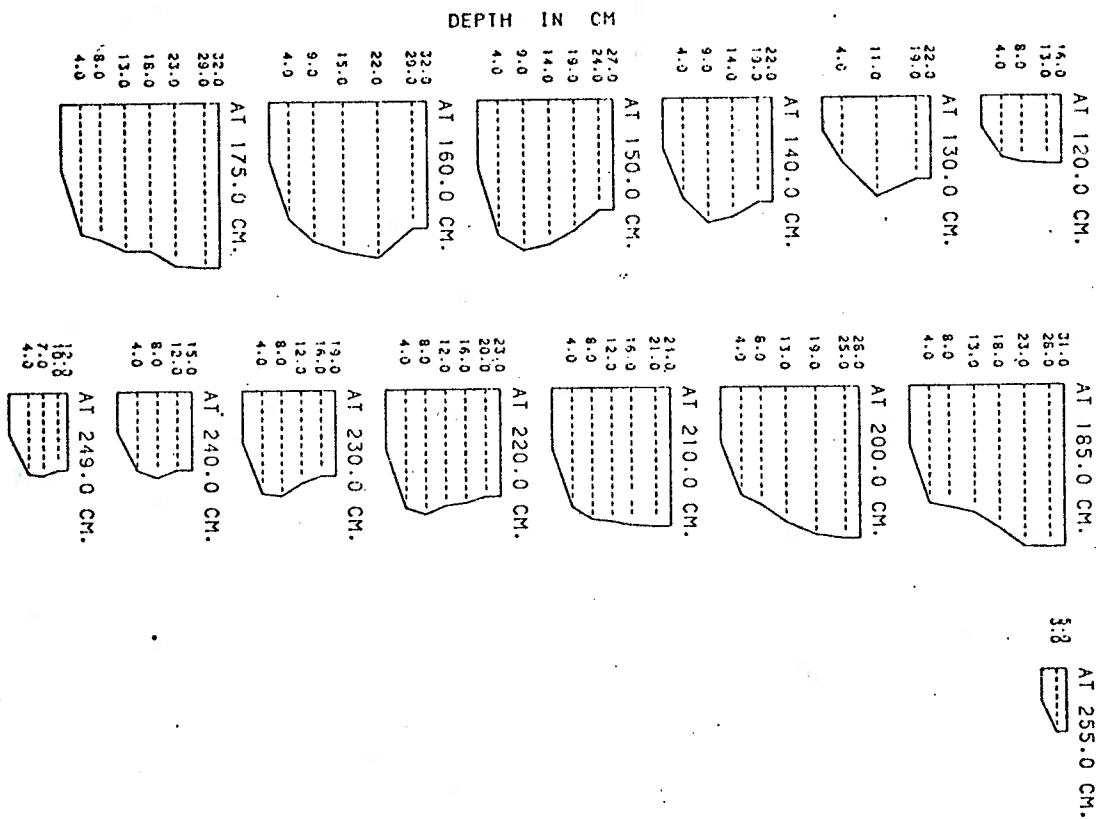
VOLUME AREA
 1 CM VERTICAL = 0.005 M²/S
 1 CM HORIZONTAL = 10 CM WIDTH



THE RUNOFF IS 78.4 L/S

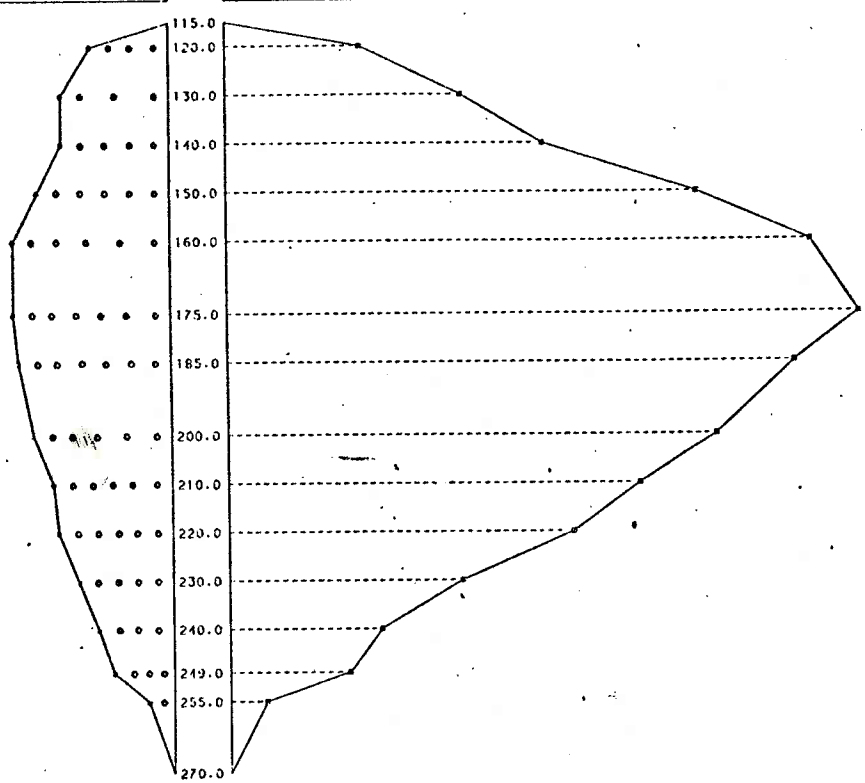
RUNOFF MEASUREMENTS PINE POINT NEAR S65, OCT.01,1979

2. DISCHARGE CHANNEL S65, AT HAY RIVER HIGHWAY, OCT.01/79 T:17.04



DEPTH PROFILE OF CREEK
1 CM VERTICAL=10 CM DEPTH
1 CM HORIZONTAL=10 CM WIDTH
DOTS-MEASUREMENT POINTS

VOLUME AREA
1 CM VERTICAL=0.006 M³/S
1 CM HORIZONTAL=10 CM WIDTH



THE RUNOFF IS 78.7 L/S

Appendix 2

Data collection BORBNK:

Technical data for mineral exploration boreholes and oil wells in the Pine Point area (version March 1983), 31 pages.

EXPLANATIONS

NUMBER	- sequential number in file
COMPANY	- exploration company; star: records confidential in 1983.
HOLE	- identifier of borehole
CLAIM	- claim name
DATE	- date of start of drilling
SYS	- coordinate system used for reporting
Z	- zone of UTM system; zone 11 has been extended over the whole study area; (.UTM): exact coordinates reported; (UTM): coordinates determined by us from claim maps or other sources.
NORTH	- northing
EAST	- easting
LENGTH	- length of borehole in ft
DIP	- dip of borehole in 360° circle; N: towards north; S: towards south; 90 vertically down.
T	- type of drilling; D: diamond coring; R: rotary; M: mixture of both.
RECV	- percent recovery in coring
LS	- borehole listing available provides lithology (L) and stratigraphy (S); A: borehole abandoned
OREBDY	- designation of orebody or mineral showing nearby
NDIAND	- file number of DIAND reported in Caine et al., 1981.

DATA COLLECTION BORBNK: TECHNICAL DATA FOR MINERAL EXPLORATION BOREHOLES AND OIL WELLS IN THE PINE POINT AREA

BY K.U.WEYER AND W.C.HORWOOD-BROWN (NHRI,ENVIRONMENT CANADA, MARCH,1983)

NUMBER	COMPANY	HOLE	CLAIM	DATE	SYS	Z	NORTH	EAST	ELEV	LENGTH	DIP	T	RECV	LS	OREBDY	NDIAND
1	ALBEDENA OILS	1	PB11		UTM	11	6762000.00	661050.00		182	90	D	VP	LS		017236
2	ALBEDENA OILS	2	PB21	AUG.21,1966	UTM	11	6762720.76	661276.02		210	90	D	D	LS		017236
3	ALBEDENA OILS	3	PB21	AUG.28,1966	UTM	11	6762686.61	660423.26		367	90	D	D	LS		017236
4	ALBEDENA OILS	4	PB21	SEPT.02,1966	UTM	11	6762654.94	660394.02		207	88.5	D	D	LS		017236
5	ALBEDENA OILS	5	PB11		UTM	11	6762689.08	661246.78		207	90	D	D	LS		017236
6	ALICE ARM	1			UTM	11	6753440.00	660050.00		463	90	D	D	LS		
7	ALICE ARM	2			UTM	11	6753440.00	660050.00		399	90	D	D	LS		
8	ALICE ARM	3			UTM	11	6753440.00	660050.00		313	90	D	D	LS		
9	AMALGAMATED RES	AR-1	WA5	OCT.11,1966	UTM	11	6761242.30	663435.69	525	127	90	D	33	LS		017282
10	AMALGAMATED RES	AR-2	WA6	OCT.12,1966	UTM	11	6761273.22	663434.26	525	201	90	D	50	LS		017282
11	AMALGAMATED RES	AR-3	WA6	OCT.13,1966	UTM	11	6761335.06	663431.41	525	138	90	D	50	LS		017282
12	AMALGAMATED RES	AR-4	WA5	OCT.14,1966	UTM	11	6761375.99	663367.40	525	200	90	D	55	LS		
13	AMALGAMATED RES	AR-5	WA5	OCT.15,1966	UTM	11	6761240.22	663390.58	525	190	90	D	75	LS		
14	AMALGAMATED RES	AR-6	WA5	OCT.16,1966	UTM	11	6761207.92	663361.94	525	181	90	D	75	LS		
15	AMCO			1949	UTM	11	6740750.00	607500.00	584.25	318	90	D	91	LS		060136M
16	AMCO	6		1949	UTM	11	6740050.00	607400.00	603.81	475	90	D	93	LS		060136M
17	AMCO	7A		1949	UTM	11	6739200.00	607450.00	625.85	460	90	D	D	LS		060136M
18	AMCO	11		1949	UTM	11	6739200.00	607450.00	679.65	676	90	D	D	LS		060136M
19	AMCO	11A		1949	UTM	11	6739200.00	607450.00	679.65	676	90	D	D	LS		060136M
20	AMCO	11B		1949	UTM	11	6739200.00	607450.00	679.65	676	90	D	D	LS		060136M
21	AMCO	12B		1949	UTM	11	6734350.00	607700.00	677.92	597	90	D	94	LS		060136M
22	AMCO	13		1949	UTM	11	6739200.00	607450.00	682.35	644	90	D	D	LS		060136M
23	AMCO	15		1949	UTM	11	6739200.00	607450.00	745.83	583	90	D	D	LS		060136M
24	AMCO	16		1949	UTM	11	6739200.00	607450.00	754.51	571	90	D	76	LS		060136M
25	AMCO	18		1949	UTM	11	6739200.00	607450.00	681.03	526	90	D	68	LS		060136M
26	AMCO	19		1949	UTM	11	6739200.00	607450.00	672.42	633	90	D	90	LS		060136M
27	AMCO	20		1949	UTM	11	6739200.00	607450.00	677.26	558	90	D	D	LS		060136M
28	AMCO	21		1949	UTM	11	6739200.00	607450.00	676.41	601	90	D	D	LS		060136M
29	BATA RESOURCES	1	EL200	SEPT.20,1966	UTM	11	6740953.76	61132.15	44	501	90	D	D	LS		
30	BATA RESOURCES	1			UTM	11	6740953.76	61132.15	44	501	90	D	D	LS		
31	BORNITE RIDGE	1			UTM	11	6737550.00	590900.00	636	90	D	D	D	LS		061990M
32	BORNITE RIDGE	2			UTM	11	6737550.00	591610.00	610	90	D	D	D	LS		061990M
33	BORNITE RIDGE	3			UTM	11	6737550.00	591610.00	595	85	90	D	D	LS		061990M
34	BUFFALO R. EXP	69-1	TV167	AUG.08,1969	UTM	11	6755123.21	639502.47	108	90	D	D	D	LS		060362M
35	BUFFALO R. EXP	69-2	TV92	AUG.16,1969	UTM	11	6754292.13	639187.41	167	90	D	D	D	LS		060362M
36	BUFFALO R. EXP	69-3	TV96	AUG.21,1969	UTM	11	6755097.18	640754.70	144	90	D	D	D	LS		060362M
37	BUFFALO R. EXP	69-4	AM23	AUG.28,1969	UTM	11	6757441.61	641934.99	255	90	D	D	D	LS		060362M
38	BUFFALO R. EXP	69-5	AM2	SEPT.03,1969	UTM	11	6756791.14	642843.57	198	90	D	D	D	LS		060362M
39	BUFFALO R. EXP	69-6	AM11	SEPT.11,1969	UTM	11	6755365.34	643147.35	339	90	D	D	D	LS		060362M
40	BUFFALO R. EXP	70-1	CEX150	OCT.07,1970	UTM	11	6741273.63	611451.63	301	90	D	D	95	LS		019187M
41	BUFFALO R. EXP	70-2	CEX149	OCT.11,1970	UTM	11	6741491.72	611447.27	305	90	D	D	95	LS		019187M
42	BUFFALO R. EXP	70-2A	CEX149	OCT.14,1970	UTM	11	6741434.39	611444.13	102	90	D	D	95	LS		019187M
43	BUFFALO R. EXP	70-3	TH5	OCT.16,1970	UTM	11	6735822.14	609308.39	222	90	D	D	95	LS		019187M
44	BUFFALO R. EXP	70-3	RY3	MAY.15,1966	UTM	11	6735822.14	609308.39	561.5	90	D	D	95	LS		019187M
45	CANTRI	C2	RY2	MAY.27,1966	UTM	11	6735822.14	609308.39	579	90	D	D	90	LS		017440M
46	CHATAWAY BRAL.	1			UTM	11	6713450.00	608100.00	700	90	D	D	D	LS		017601M
47	COMINCO	AHT69-1	AHT10	SEPT.15,1969	UTM	11	6732000.00	606900.00	1072	90	D	D	D	LS		060824M
48	COMINCO	BC67-1	TR75/76	SEPT.1,1967	UTM	11	6736350.00	583700.00	688	90	D	D	85	LS		060824M
49	COMINCO	BC67-2	TR97/107	OCT.1,1967	UTM	11	6734450.00	585400.00	624	90	D	D	85	LS		061866M
50	COMINCO	BR67-1	GW12	SEPT.1,1967	UTM	11	67227800.00	608500.00	514	90	D	D	75	LS		018016M

DATA COLLECTION BORBNK: TECHNICAL DATA FOR MINERAL EXPLORATION BOREHOLES AND OIL WELLS IN THE PINE POINT AREA

BY K.U.WEYER AND W.C.HORWOOD-BROWN (NHRI-ENVIRONMENT CANADA, MARCH, 1983)

NUMBER	COMPANY	HOLE	CLAIM	DATE	SYS Z	NORTH	EAST	ELEV	LENGTH	DIP	T	RECV	LS	OREBDY	NDIAND
51	COMINCO	BR67-2	GW14	JULY, 1967	UTM 11	6727500.00	609500.00	760	190	90	D	80	LS		018016M
52	COMINCO	BR67-2A	GW14	JULY, 1967	UTM 11	6727500.00	609500.00	739	529	90	D	80	LS		018016M
53	COMINCO	BR67-3	GW1	JULY, 1967	UTM 11	6728600.00	608350.00	740	505	90	D	80	LS		018016M
54	COMINCO	DON67-1	DC35	AUG. 01, 1967	UTM 11	6729800.00	590300.00	696	308	90	D	80	L		018016M
55	COMINCO	DON67-2	DC31	AUG. 1967	UTM 11	6730750.00	590050.00	700	624	90	D	80	L		018016M
56	COMINCO	DON67-3	DONKEY7	SEPT. 1967	UTM 11	6732800.00	592000.00	700	709	90	D	80	LS		018016M
57	COMINCO	DON69-1	DON13	JUN. 13, 1969	UTM 11	6732800.00	592000.00		1119	90	D		LS		061281M
58	COMINCO	DON69-2	DONKEY7	JUL. 06, 1969	UTM 11	6732800.00	592000.00		727	90	D		LS		061281M
59	COMINCO	DON69-3	DONKEY13	JUL. 15, 1969	UTM 11	6732800.00	592000.00		704	90	D		LS		061281M
60	COMINCO	FH69-1	FH56	JUL. 24, 1969	UTM 11	6728420.00	612800.00	777.25	480	90	D		L		061281M
61	COMINCO	FH69-2	FH55	JUL. 31, 1969	UTM 11	6728400.00	612200.00	777.08	455	90	D		L		061281M
62	COMINCO	FH69-3	FH2	AUG. 06, 1969	UTM 11	6728550.00	611650.00	778.52	459	90	D		L		061281M
63	COMINCO	FH69-4	FH20	AUG. 13, 1969	UTM 11	6727000.00	611900.00	785.42	523	90	D		L		061281M
64	*COMINCO	HW79-1	EL26/36	MAR. 26, 1979	UTM 11	6736000.00	550400.00	610.3	1157.	90	D	97	LS		081224M
65	*COMINCO	HW79-2	EL28/38	APR. 02, 1979	UTM 11	6740000.00	550400.00	590.6	1600.	90	D	96	LS		081224M
66	*COMINCO	HW79-3	EL24/33/34	APR. 02, 1979	UTM 11	6730900.00	550400.00	646.4	1706.	90	D	96	LS		081224M
67	*COMINCO	HW79-4	EL22/31/32	APR. 09, 1979	UTM 11	6727300.00	550400.00	672.6	1401.	90	D	96	LS		081224M
68	*COMINCO	HW79-5	HAY1/2/7/8	AUG. 25, 1979	UTM 11	6722500.00	559400.00	803.8	1035.	90	D		LS		081224M
69	*COMINCO	HW79-6	HAY6/3	SEPT. 07, 1979	UTM 11	6729300.00	560200.00	803.8	1536.	90	D		LS		081224M
70	*COMINCO	HW79-7	EL20/29	SEPT. 18, 1979	UTM 11	6722000.00	550400.00	715.3	1844.	90	D		LS		081224M
71	*COMINCO	HW79-8	EL46/43	OCT. 05, 1979	UTM 11	6721000.00	541600.00	794.3	1739.	90	D		LS		081224M
72	*COMINCO	HW79-9	EL47/44	OCT. 17, 1979	UTM 11	6717300.00	541800.00	895.7	1809.	90	D		LS		081224M
73	*COMINCO	HW79-10	HART30/31	OCT. 27, 1979	UTM 11	6725600.00	531900.00	881.6	2239.	90	D	94	LS		081224M
74	*COMINCO	HW79-11	HART3/6	NOV. 05, 1979	UTM 11	6740500.00	521300.00	853.1	1934.	90	D	92.7	LS		081224M
75	*COMINCO	HW79-12	HART2/5	NOV. 19, 1979	UTM 11	6740900.00	521400.00	859.6	1489.	90	D	95	LS		081224M
76	*COMINCO	HW79-13	HART17/19	NOV. 25, 1979	UTM 11	6733800.00	526500.00	826.8	830.	90	D	97	LS		081224M
77	*COMINCO	HW80-13A	HART17/19	MAR. 31, 1980	UTM 11	6733800.00	526500.00	826.8	2175.	90	D		LS		081224M
78	*COMINCO	HW80-14	EL3/12	JAN. 12, 1980	UTM 11	6724400.00	541400.00	716.2	2097.	90	D	91.3	LS		081224M
79	*COMINCO	HW80-15	EL1/52	JAN. 14, 1980	UTM 11	6722000.00	531800.00	907.5	2249.	90	D	98.3	LS		081224M
80	*COMINCO	HW80-16	EL5/14	JAN. 16, 1980	UTM 11	6728600.00	541100.00	676.5	1464.	90	D	94	LS		081224M
81	*COMINCO	HW80-17	HART21/22	JAN. 11, 1980	UTM 11	6730200.00	532100.00	739.2	727.	90	D	94	LS		081224M
82	*COMINCO	HW80-18	EL7/16	JAN. 27, 1980	UTM 11	6733400.00	532100.00	622.1	1904.	90	D		LS		081224M
83	*COMINCO	HW80-19	HART17/35	JAN. 23, 1980	UTM 11	6734400.00	532100.00	666.0	1447.	90	D	95.6	LS		081224M
84	*COMINCO	HW80-20	EL9/18	FEB. 07, 1980	UTM 11	6737500.00	540500.00	604.4	1244.	90	D	97.4	LS		081224M
85	*COMINCO	HW80-22	MAC14/ZM1	FEB. 09, 1980	UTM 11	6741500.00	540200.00	582.4	1096.	90	D		LS		081224M
86	*COMINCO	HW80-23	MAC6/12	FEB. 08, 1980	UTM 11	6745000.00	533600.00	564.3	1236.	90	D	95.7	LS		081224M
87	*COMINCO	HW80-24	MAC19/ZM3	FEB. 24, 1980	UTM 11	6745400.00	533800.00	555.5	907.	90	D	91.3	LS		081224M
88	*COMINCO	HW80-29	HART7/8	MAR. 08, 1980	UTM 11	6736000.00	521100.00	817.0	2147.	90	D	92	LS		081224M
89	*COMINCO	HW80-30	TAT2/4/5	MAR. 20, 1980	UTM 11	6734700.00	512400.00	876.0	2087.	90	D	97.9	LS		081224M
90	*COMINCO	HW80-31	HART20/27	FEB. 18, 1980	UTM 11	6731700.00	522400.00	874.4	2097.	90	D		LS		081224M
91	*COMINCO	HW80-32	TAT6/7	MAR. 17, 1980	UTM 11	6730400.00	512300.00	876.0	2187.	90	D	96.5	LS		081224M
92	*COMINCO	HW80-33	HART42/29	FEB. 23, 1980	UTM 11	6747200.00	522700.00	929.3	2127.	90	D	97	LS		081224M
93	*COMINCO	HW80-42	E21/2	MAR. 21, 1980	UTM 11	6747200.00	502200.00	879.8	1037.	90	D	90.5	LS		081224M
94	*COMINCO	HW80-49	EL54/50/53	FEB. 19, 1980	UTM 11	6717800.00	531700.00	908.8	1487.	90	D	97.7	LS		081224M
95	COMINCO	LM69-1	LM20		UTM 11	6729100.00	608700.00		507	90	D		LS		061281M
96	COMINCO	LM69-2	LM30	SEPT. 01, 1969	UTM 11	6729550.00	608000.00		516	90	D		LS		061281M
97	COMINCO	LM69-3	LM48	SEPT. 11, 1969	UTM 11	6730250.00	606750.00		511	90	D		LS		061281M
98	COMINCO	SEC67-1	D35/34	SEPT. 1967	UTM 11	6728450.00	585450.00	720.	697	90	D	80	L		017999M
99	COMINCO	TCK67-1	DL1	AUG. 1967	UTM 11	6736400.00	598250.00	650.	599	90	D	80	L		018000M
100	COMINCO	TCK67-2	DL8	AUG. 1967	UTM 11	6732800.00	598000.00	650.	631	90	D	80	L		018000M

DATA COLLECTION BORBNK: TECHNICAL DATA FOR MINERAL EXPLORATION BOREHOLES AND OIL WELLS IN THE PINE POINT AREA

BY K.U.WEYER AND W.C.HORWOOD-BROWN (NHRI-ENVIRONMENT CANADA, MARCH, 1983)

NUMBER	COMPANY	HOLE	CLAIM	DATE	SYS	Z	NORTH	EAST	ELEV	LENGTH	DIP	T	RECV	LS	OREBDY	NDIAND
101	COMINCO	TCK67-3	DL33	AUG. 1967	UTM	11	6735050.00	599400.00	650	623	90	D	80	L		018000M
102	COMINCO	WTI167-1	WT18	AUG. 1967	UTM	11	6735050.00	591750.00	570	611	90	D	75	L		018016M
103	COMINCO	WTI167-2	WT18	SEPT. 1967	UTM	11	6735050.00	593600.00	570	593	90	D	80	L		018016M
104	COMINCO	WTI167-3	RL12	AUG. 1967	UTM	11	6735050.00	595100.00	570	599	90	D	80	L		018016M
105	COMINCO	ZA69-1	ZA26	SEPT. 20, 1969	UTM	11	6736750.00	608850.00		552	90	D		L	S	
106	CONWEST		1 A27	SEPT. 23, 1956	UTM	11	6754921.13	640218.65		222	90	D		L		
107	CONWEST		2 A27	SEPT. 27, 1956	UTM	11	6754985.43	640099.38		113	90	D		L		
108	CONWEST		3 A36	SEPT. 30, 1956	UTM	11	6754991.99	639364.53		227	90	D		L		
109	CONWEST		4 A36	OCT. 06, 1956	UTM	11	6754637.02	639294.59		333	90	D		L		
110	CONWEST		5 A49	OCT. 12, 1956	UTM	11	6754353.15	638370.39		122	90	D		L		
111	CONWEST		6 A32	OCT. 16, 1956	UTM	11	6754325.26	640030.95		179	90	D		L		
112	CONWEST		7 A31	OCT. 18, 1956	UTM	11	6754504.87	639875.02		123	90	D		L		
113	CONWEST		8 A21	OCT. 21, 1956	UTM	11	6754340.34	639932.30		143	90	D		L		
114	CONWEST		9 A182	OCT. 23, 1956	UTM	11	6754561.94	640334.53		184	90	D		L		
115	CONWEST		10 A21	OCT. 29, 1956	UTM	11	6755944.66	641037.81		192	90	D		L		
116	CONWEST		11 A24	NOV. 03, 1956	UTM	11	6756245.53	640814.77		188	90	D		L		
117	CONWEST		12 A30	MAY 20, 1956	UTM	11	6756366.13	640835.10		97	90	D		L		
118	CONWEST		13 A34	NOV. 06, 1956	UTM	11	6756361.49	639835.10		116	90	D		L		
119	CONWEST		14 A29	NOV. 09, 1956	UTM	11	6756871.81	639418.05		152	90	D		L		
120	CONWEST		15 A34	NOV. 11, 1956	UTM	11	6756875.36	639508.36		117	90	D		L		
121	CONWEST		16 A40	NOV. 14, 1956	UTM	11	6756868.27	639327.74		132	90	D		L		
122	CONWEST		17 A7	NOV. 16, 1956	UTM	11	6756655.63	638642.58		134	90	D		L		
123	CONWEST		18 A27	NOV. 19, 1956	UTM	11	6756628.25	640096.60		135	90	D		L		
124	CONWEST		19 A27	NOV. 21, 1956	UTM	11	6756924.69	640309.01		103	90	D		L		
125	CONWEST		20 A14	NOV. 22, 1956	UTM	11	6754829.55	640252.43		124	90	D		L		
126	CONWEST		21 B26	NOV. 24, 1956	UTM	11	6754982.98	640216.21		107	90	D		L		
127	CONWEST		65-P1	DEC. 05, 1956	UTM	11	6726702.54	583329.43		211	90	D		L		
128	CONWEST		65-P2	NOV. 1965	UTM	11	6734500.00	612400.00		457	90	D	90	L		061992M
129	CONWEST		65-P3	NOV. 1965	UTM	11	6734500.00	612400.00		450	90	D		L		061992M
130	CONWEST		65-P4	NOV. 1965	UTM	11	6734500.00	612400.00		450	90	D		L		061992M
131	CONWEST		65-P5	NOV. 1965	UTM	11	6735800.00	612000.00		426	90	D	95	L		061992M
132	CONWEST		308-601	NOV. 1965	UTM	11	6735800.00	612000.00		450	90	D	75	L		061992M
133	CONWEST		308-602	AUG. 06, 1966	UTM	11	6741000.00	608750.00		253	90	D	66	L		017254M
134	CONWEST		309-501	AUG. 03, 1966	UTM	11	6741000.00	608750.00		461	90	D		L		017254M
135	CONWEST		309-501	JUL. 20, 1966	UTM	11	6745000.00	608820.00		137	90	D	P	L		017254M
136	CONWEST		309-502	JUL. 30, 1966	UTM	11	6745000.00	608820.00		378	90	D	91.8	L		017254M
137	CONWEST		310-401	JUL. 22, 1966	UTM	11	6745000.00	608000.00		259	90	D	97.4	L		017254M
138	CONWEST		401-301	JUL. 24, 1966	UTM	11	6745000.00	608000.00		480	90	D	90.4	L		017254M
139	CONWEST		401-301	AUG. 29, 1966	UTM	11	6753493.29	634526.09		202	90	D	90.0	L		017254M
140	CONWEST		401-302	SEPT. 01, 1966	UTM	11	6753522.50	634479.72		185	90	D	90.0	L		017254M
141	CONWEST		401-303	SEPT. 04, 1966	UTM	11	6753304.32	634442.71		183	90	D	60	L		017254M
142	CONWEST		404-201	JUL. 25, 1966	UTM	11	6750064.60	635577.05		257	90	D	88.0	L		017254M
143	CONWEST		404-202	JUL. 21, 1966	UTM	11	6750036.55	635653.63		257	90	D	87.2	L		017254M
144	CONWEST		405-1	SEPT. 14, 1966	UTM	11	6749655.74	634595.74		266	90	D	57.4	L		017254M
145	CONWEST		406-101	JUL. 29, 1966	UTM	11	6751349.19	635965.95		266	90	D	57.4	L		017254M
146	CONWEST		408-1	MAY 14, 1966	UTM	11	6751524.76	633316.05		185.5	90	D	57	L		061992M
147	CONWEST		408-1A	MAY 02, 1966	UTM	11	6751524.61	633315.82		354	90	D	76.6	L		061992M
148	CONWEST		408-2	MAY 02, 1966	UTM	11	6751524.17	6333397.50		611.34	90	D	76.6	L		061992M
149	CONWEST		408-3	MAY 09, 1966	UTM	11	6751520.78	633245.54		610.12	90	D	66.5	L		061992M
150	CONWEST		408-4	MAY 09, 1966	UTM	11	6751480.13	633322.09		611.04	90	D	66.5	L		061992M

DATA COLLECTION BORBNK: TECHNICAL DATA FOR MINERAL EXPLORATION BOREHOLES AND OIL WELLS IN THE PINE POINT AREA

BY K.U.WEYER AND W.C.HORWOOD-BROWN (NHRI, ENVIRONMENT CANADA, MARCH, 1983)

NUMBER	COMPANY	HOLE	CLAIM	DATE	SYS	Z	NORTH	EAST	ELEV	LENGTH	DIP	T	RECV	LS	OREBDY	NDIAND
151	CONQUEST	408-5	TV112	MAY 28, 1966	-UTM	11	6751566.71	6333115.93	609.25	300	90	D	76.4	LS	AS5	
152	CONQUEST	408-6	TV112	JUN-01, 1966	-UTM	11	6751566.71	6333115.93	610.14	320	90	D	89.1	LS	AS3	
153	CONQUEST	408-7	TV112	JUN-06, 1966	-UTM	11	6751566.71	6333115.93	610.14	320	90	D	89.1	LS	AS3	
154	CONQUEST	408-8	TV112	JUN-09, 1966	-UTM	11	6751566.71	6333115.93	609.16	400	90	D	58.5	LS	AS3	
155	CONQUEST	408-9	TV112	JUN-11, 1966	-UTM	11	6751541.92	633252.18	609.04	407	90	D	61.9	LS	AS5	
156	CONQUEST	408-10		JUL-16, 1966	-UTM	11	6751497.06	633255.74	612.15	410	90	D	60.0	LS	AS5	
157	CONQUEST	408-11		JUN-24, 1966	-UTM	11	6751544.20	633299.14	610.09	389	90	D	59.1	LS	AS5	
158	CONQUEST	408-12		JUL-26, 1966	-UTM	11	6751501.05	633297.84	611.49	182	90	D	60.0	LS	AS5	
159	CONQUEST	408-12A		AUG-13, 1966	-UTM	11	6751501.00	633297.54	610.18	360	90	D	68.6	LS	AS5	
160	CONQUEST	408-13		SEPT-01, 1966	-UTM	11	6751548.82	633334.32	611.53	350	90	D	63.3	LS	AS5	
161	CONQUEST	408-14		JUL-03, 1966	-UTM	11	6751503.52	633339.01	609.58	342	90	D	85.7	LS	AS5	
162	CONQUEST	408-15		JUN-20, 1966	-UTM	11	6751536.09	6332210.98	609.41	384	90	D	73.0	LS	AS5	
163	CONQUEST	408-16		JUN-26, 1966	-UTM	11	6751587.29	633232.50	609.58	347	90	D	86.6	LS	AS5	
164	CONQUEST	408-17		JUL-03, 1966	-UTM	11	6751566.71	633222.77	611.27	356	90	D	61.5	LS	AS5	
165	CONQUEST	408-18		JUL-11, 1966	-UTM	11	6751555.38	633222.77	611.27	356	90	D	61.5	LS	AS5	
166	CONQUEST	408-19	TV112	AUG-20, 1966	-UTM	11	6751477.67	633277.90	611.27	356	90	D	61.5	LS	AS5	
167	CONQUEST	408-20	TV112	AUG-27, 1966	-UTM	11	6751474.30	633236.38	611.27	356	90	D	61.5	LS	AS5	
168	CONQUEST	1030-73-1	ROC79	MAR-03, 1973	-UTM	11	6746670.80	623130.70	609.41	384	90	D	86.6	LS	AS5	060063M
169	CONQUEST	1030-73-2	ROC79	MAR-05, 1973	-UTM	11	6746609.99	623163.02	609.41	384	90	D	86.6	LS	AS5	
170	CONQUEST	1030-73-3	ROC79	MAR-07, 1973	-UTM	11	6746488.89	623222.77	609.41	384	90	D	86.6	LS	AS5	
171	CONQUEST	1030-73-4	ROC99	MAR-10, 1973	-UTM	11	6746607.67	622195.54	609.41	384	90	D	86.6	LS	AS5	060063M
172	CONQUEST	1030-73-5	ROC99	MAR-12, 1973	-UTM	11	6746607.67	622195.54	609.41	384	90	D	86.6	LS	AS5	
173	CONQUEST	1030-73-6	ROC99	MAR-14, 1973	-UTM	11	6746607.67	622195.54	609.41	384	90	D	86.6	LS	AS5	060063M
174	CONQUEST	1030-73-7	ROC100	MAR-16, 1973	-UTM	11	6746607.67	622195.54	609.41	384	90	D	86.6	LS	AS5	
175	CONQUEST	1030-73-8	ROC100	MAR-16, 1973	-UTM	11	6746607.67	622195.54	609.41	384	90	D	86.6	LS	AS5	
176	CONQUEST	1030-73-9	KK1	APR-04, 1973	-UTM	11	6759541.73	658042.57	609.41	384	90	D	100.	LS	N204	080149M
177	CONQUEST	1030-73-10	KK1	APR-05, 1973	-UTM	11	6759697.67	658063.48	609.41	384	90	D	100.	LS	N204	080149M
178	CONQUEST	1030-73-11	KK1	APR-06, 1973	-UTM	11	6759697.67	658063.48	609.41	384	90	D	100.	LS	N204	080149M
179	CONQUEST	1030-73-12	KK1	APR-07, 1973	-UTM	11	6759697.67	658063.48	609.41	384	90	D	100.	LS	N204	080149M
180	CONQUEST	1030-73-13	KK1	APR-07, 1973	-UTM	11	6759697.67	658063.48	609.41	384	90	D	100.	LS	N204	080149M
181	COPPERMAN	1	WB40	AUG-31, 1966	-UTM	11	6734595.29	630864.81	609.41	384	90	D	100.	LS	N204	017409M
182	COPPERMAN	2	WB39	SEPT-26, 1966	-UTM	11	6734595.29	630864.81	609.41	384	90	D	100.	LS	N204	017409M
183	CORONET	101	RM76	AUG-22, 1966	-UTM	11	6740074.04	629597.86	774.03	200	90	D	97.	LS	R61	017235M
184	CORONET	202	RM61	AUG-24, 1966	-UTM	11	6741792.49	630794.18	770.19	200	90	D	97.	LS	R61	017235M
185	CORONET	233			-UTM	11	6741797.77	630869.90	769.62	200	90	D	97.	LS	R61	062058M
186	CORONET	234			-UTM	11	6741694.03	630864.81	769.77	280	90	D	97.	LS	R61	062058M
187	CORONET	235			-UTM	11	6741769.12	630906.70	770.71	220	90	D	97.	LS	R61	062058M
188	CORONET	236			-UTM	11	6741765.52	630875.78	770.71	220	90	D	97.	LS	R61	062058M
189	CORONET	237			-UTM	11	6741751.21	630861.10	769.77	221	90	D	97.	LS	R61	062058M
190	CORONET	238			-UTM	11	6741735.36	630847.04	769.77	221	90	D	97.	LS	R61	062058M
191	CORONET	239			-UTM	11	6741738.08	630877.26	769.77	221	90	D	97.	LS	R61	062058M
192	CORONET	240			-UTM	11	6741740.80	630906.70	770.71	220	90	D	97.	LS	R61	062058M
193	CORONET	241			-UTM	11	6741721.06	630882.24	769.77	221	90	D	97.	LS	R61	062058M
194	CORONET	242			-UTM	11	6741716.93	630847.04	769.77	221	90	D	97.	LS	R61	062058M
195	CORONET	243			-UTM	11	6741694.03	630864.81	769.77	221	90	D	97.	LS	R61	062058M
196	CORONET	244			-UTM	11	6741676.04	630849.54	769.77	221	90	D	97.	LS	R61	062058M
197	CORONET	245			-UTM	11	6741671.15	630785.50	769.77	221	90	D	97.	LS	R61	062058M
198	CORONET	246			-UTM	11	6741701.52	630752.16	769.77	221	90	D	97.	LS	R61	062058M
199	CORONET	247			-UTM	11	6741718.35	630805.86	769.77	221	90	D	97.	LS	R61	062058M
200	CORONET	248			-UTM	11	6741747.36	630784.86	770.35	220	90	D	97.	LS	R61	062058M

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 BY K.U.WEYER AND W.C.HORWOOD-BROWN (NHRI,ENVIRONMENT CANADA, MARCH,1983)

NUMBER	COMPANY	HOLE	CLAIM	DATE	SYS	Z	NORTH	EAST	ELEV	LENGTH	DIP	T	RECV	LS	OREBDY	NDIAND
201	CORONET	249			UTM	11	6741778.86	630796.57	770.35	200	90	D		L	R61	062058M
202	CORONET	250			UTM	11	6741793.42	630810.50		200	90	D		L	R61	062058M
203	CORONET	251			UTM	11	6741771.39	630778.54		200	90	D		L	R61	062058M
204	CORONET	252			UTM	11	6741746.82	630771.31	770.13	200	90	D		L	R61	062058M
205	CORONET	253			UTM	11	6741776.89	630766.34	769.93	200	90	D		L	R61	062058M
206	CORONET	254			UTM	11	6741743.73	630753.66	769.85	250	90	D		L	R61	062058M
207	CORONET	255			UTM	11	6741760.98	630750.99	769.27	250	90	D		L	R61	062058M
208	CORONET	323			UTM	11	6740666.16	628848.40	770.81	301	90	D		L	S65	062058M
209	CORONET	324			UTM	11	6740641.42	628878.30	770.67	246	90	D		L	S65	062058M
210	CORONET	325			UTM	11	6740643.45	628908.13	770.83	129	90	D		L	S65	062058M
211	CORONET	326			UTM	11	6740688.16	628952.97	770.62	150	90	D		L	S65	062058M
212	CORONET	327			UTM	11	6740721.24	628950.67	770.40	176	90	D		L	S65	062058M
213	CORONET	328			UTM	11	6740750.15	628948.86	770.54	175	90	D		L	S65	062058M
214	CORONET	329			UTM	11	6740779.74	628948.69	770.46	200	90	D		L	S65	062058M
215	CORONET	330			UTM	11	6740774.63	628886.69	770.44	150	90	D		L	S65	062058M
216	CORONET	331			UTM	11	6740747.11	628884.63	770.14	200	90	D		L	S65	062058M
217	CORONET	332			UTM	11	6740742.09	628882.80	770.60	200	90	D		L	S65	062058M
218	CORONET	333			UTM	11	6740709.43	628882.80	770.68	200	90	D		L	S65	062058M
219	DOMINION EXPL.	1	LOU8	FEB. 09, 1961	UTM	11	6747252.86	628527.91	392	336	90	D		L	S65	0171924M
220	GEM EXPLORATION	1	ELL22	1967	UTM	11	6764798.15	671792.23			90	D		L		018024M
221	GEM EXPLORATION	2	ELL13	1967	UTM	11	6765105.85	671747.20	365		90	D		L		018024M
222	GEM EXPLORATION	3	ELL31	1967	UTM	11	6764456.62	671778.69	404		90	D		L		018024M
223	GEM EXPLORATION	4	ELL14	1967	UTM	11	6765221.94	672223.30	403		90	D		L		018024M
224	GEM EXPLORATION	5	ELL24	1967	UTM	11	6765124.07	672223.30	403		90	D		L		018024M
225	GEM EXPLORATION	6	ANDY21	1966	UTM	11	6751250.00	646000.00	210		90	D		L		017306
226	GEM EXPLORATION	2	ANDY22	1966	UTM	11	6732200.00	645850.00	201		90	D		L		017306
227	GEM EXPLORATION	3	ANDY22	1966	UTM	11	6731750.00	645850.00	318		90	D	P			017306
228	GEM EXPLORATION	4	ANDY22	1966	UTM	11	6732200.00	645850.00	201		90	D	P			017306
229	GEM EXPLORATION	5	JIM30	1966	UTM	11	6732200.00	645850.00	200		90	D	VP			017306
230	GEM EXPLORATION	6	JIM29	1966	UTM	11	6732200.00	645850.00	201		90	D	P			017306
231	GEM EXPLORATION	7	JIM21	1966	UTM	11	6732250.00	645850.00	210		90	D	VP			017306
232	GEM EXPLORATION	8	JIM12	1966	UTM	11	6732250.00	645850.00	198		90	D	VP			017306
233	GEM EXPLORATION	9	GENE6	1966	UTM	11	6732250.00	645850.00	201		90	D	VP			017306
234	GEM EXPLORATION	10	GENE3	1966	UTM	11	6732250.00	645850.00	201		90	D	VP			017306
235	GEM EXPLORATION	11	DON12	1966	UTM	11	6734600.00	645500.00	158		90	D	VP			017306
236	GEM EXPLORATION	12	DON15	1966	UTM	11	6736000.00	648400.00	203		90	D	VP			017306
237	GEM EXPLORATION	13	DON18	1966	UTM	11	6737250.00	648400.00	734		90	D	VP			017306
238	GEM EXPLORATION	14	DON20	1966	UTM	11	6738550.00	648400.00	731		90	D	45			017306
239	GEM EXPLORATION	15	SALT19	1966	UTM	11	6739800.00	648300.00	725		90	D	35			017306
240	GEM EXPLORATION	16	SALT16	1966	UTM	11	6741200.00	648300.00	720		90	D	10			017306
241	GEM EXPLORATION	17	SALT14	1966	UTM	11	6741700.00	648300.00	708		90	D	15			017306
242	GEM EXPLORATION	18	SALT13	1966	UTM	11	6742000.00	648300.00	702		90	D	5			017306
243	GEM EXPLORATION	19	SALT36	1966	UTM	11	6740700.00	649400.00	202		90	D	15			017306
244	GEM EXPLORATION	20	DUC28	1966	UTM	11	6740600.00	651100.00	712		90	D	15			017306
245	GEM EXPLORATION	21	DON14	1966	UTM	11	6735300.00	648450.00	735		90	D	20			017306
246	GEM EXPLORATION	22	B0810	1966	UTM	11	6734850.00	653500.00	205		90	D	25			017306
247	GEM EXPLORATION	23	DAVE10	1966	UTM	11	6735000.00	653500.00	737		90	D	25			017306
248	GEM EXPLORATION	24	DAVE10	1966	UTM	11	6735000.00	653500.00	195		90	D	25			017306
249	GEM EXPLORATION	25	FERN30	1966	UTM	11	6733500.00	647200.00	201		90	D	30			017306
250	GEM EXPLORATION	26	ANDY31	1966	UTM	11	6731700.00	645500.00	237		90	D	40			017306

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NUMBER	COMPANY	HOLE	CLAIM	DATE	SYS	Z	NORTH	EAST	ELEV	LENGTH	DIP	T	RECV	LS	OREBDY	NDIAND
251	GIANT-YELLO-FAL	27	GENE21	1966	UTM	11	6732000.00	644400.00		209	90	D	45	L		017306
252	GIANT-YELLO-FAL	28	AL3	1966	UTM	11	6732000.00	643450.00		201	90	D	45	L		017306
253	GIANT-YELLO-FAL	29	AL21	1966	UTM	11	6732000.00	642450.00		201	90	D	85	L		017306
254	GIANT-YELLO-FAL	30	AL21	1966	UTM	11	6732000.00	641600.00		201	90	D	85	L		017306
255	GREAT BASIN MTL	1	NOX30	1967	UTM	11	6750475.91	608765.37		512	90	D	6	L		018818M
256	GREAT BASIN MTL	2	NOX30		UTM	11	6750479.59	608886.00		553	90	D		L		018818M
257	GREEN POINT	66-1			UTM	11	6731550.00	604700.00		523	90	D		LS		060252M
258	GREEN POINT	66-2			UTM	11	6731580.00	604800.00		564	90	D		LS		060252M
259	*GULF MINERALS	80-8	TATH23	FEB.21, 1980	UTM	11	6733600.00	522600.00	541.4	687	90	D		LS		081239
260	*GULF MINERALS	80-9	TATH23	MAR.03, 1980	UTM	11	6755500.00	523900.00	554.5	926	90	D		LS		081239
261	*GULF MINERALS	80-10	TATH30	MAR.14, 1980	UTM	11	6758500.00	525800.00	547.9	906	90	D		LS		081239
262	*GULF MINERALS	80-11	TATH	MAR.24, 1980	UTM	11	6744000.00	516900.00	820.3	2061	90	D		LS		081239
263	HI-HO HECLA	1	CC23		UTM	11	6732380.00	636940.00		160	90	D	70	L		
264	HI-HO HECLA	2	CC23		UTM	11	6732380.00	636940.00		301	90	D	70	L		
265	HI-HO HECLA	3	CC23		UTM	11	6732380.00	636970.00		144	90	D	82	L		
266	HI-HO HECLA	4	CC23		UTM	11	6732280.00	637000.00		187	90	D	56	L		
267	HI-HO HECLA	5	CC23		UTM	11	6732280.00	637000.00		109	45N	D	81	L		
268	HI-HO HECLA	6	CC23		UTM	11	6732280.00	637000.00		78.5	90	D	94	L		
269	JUMA	1	SAP89	JAN.1967	UTM	11	6748324.55	655881.08		351	90	D	72	LS		
270	JUMA	2	SAP127	FEB.1967	UTM	11	6748351.89	656370.88		352	90	D	54	LS		
271	JUMA	3	SAP134	FEB.1967	UTM	11	6748819.10	657265.27		351	90	D	73	LS		
272	JUMA	JPP1	SAP66	MAR.10, 1966	UTM	11	6748021.52	653821.37		300	90	D		LS		061987M
273	JUMA	JPP2	SAP73	MAR.16, 1966	UTM	11	6748021.52	653898.62		137	90	D		LS		061987M
274	JUMA	JPP3	SAP127	MAR.23, 1966	UTM	11	6748021.52	656203.55		218	90	D		LS		061987M
275	JUMA	JPP4	SAP71	MAR.27, 1966	UTM	11	6747291.83	654217.45		205	90	D		LS		061987M
276	MADRONA	1	AN40	APR.30, 1966	UTM	11	6760050.00	647000.00		251	90	D	95	LS		061994M
277	MCINTYRE	2	AN40	MAY.04, 1966	UTM	11	6759200.00	651350.00		202	90	D	70	LS		061994M
278	MCINTYRE	3	AN13	MAY.06, 1966	UTM	11	6759200.00	651350.00		149	90	D		LS		061994M
279	MCINTYRE	4	AN24	MAY.10, 1966	UTM	11	6758050.00	651750.00		300	90	D		LS		061994M
280	MCINTYRE	5	AN13	MAY.12, 1966	UTM	11	6758050.00	651750.00		191	90	D		LS		061994M
281	MCINTYRE	6	AN47	MAY.15, 1966	UTM	11	6759200.00	653300.00		251	90	D		LS		061994M
282	MCINTYRE	7	AN47	MAY.18, 1966	UTM	11	6759200.00	653300.00		301	90	D		LS		061994M
283	MIDLAND PETRO.	1	LEAD14	1966	UTM	11	6716600.00	645600.00		151	90	D	66	LS		061994M
284	MIDLAND PETRO.	2	LEAD14		UTM	11	6716600.00	644200.00		402	90	D		LS		061994M
285	MIDLAND PETRO.	3	LEAD14		UTM	11	6716600.00	644200.00		562	90	D		LS		061994M
286	NORGOLD	1	WB8	JUN.14, 1966	UTM	11	6734000.00	588900.00	600	670	90	D		LS		060077M
287	NORGOLD	2	WB27	JUN.23, 1966	UTM	11	6734000.00	588900.00	600	517	90	D		LS		060077M
288	NORGOLD	3	WB33	JUL.01, 1966	UTM	11	6734750.00	590120.00		302	90	D		LS		060077M
289	NORTH AMER. RARE	1	LEAD14	SEPT.10, 1966	UTM	11	6736545.91	622237.55		121	90	D		L		
290	NORTH AMER. RARE	2	LEAD14		UTM	11	6736545.91	622237.55		341	90	D		L		
291	*PACIFIC PETRO.	1	CUBE	FEB.15, 1979	UTM	11	6733807.64	608687.92		602	90	D		S		
292	*PACIFIC PETRO.	2	CUBE	FEB.12, 1979	UTM	11	6733807.64	608773.92		602	90	D		S		
293	*PACIFIC PETRO.	4	CUBE	FEB.26, 1979	UTM	11	6733371.34	607314.39		902	90	D		S		
294	*PACIFIC PETRO.	5	CUBE	MAR.02, 1979	UTM	11	6733371.34	607314.39		588	90	D		S		
295	*PACIFIC PETRO.	6	CUBE	MAR.06, 1979	UTM	11	6733371.34	607314.39		696	90	D		S		
296	*PACIFIC PETRO.	7	CUBE	MAR.09, 1979	UTM	11	6733073.14	607866.26		376	90	D		S		
297	*PACIFIC PETRO.	8	CUBE	MAR.12, 1979	UTM	11	6733073.14	607866.26		394	90	D	80	S		
298	PATRICIA SILVER	66-1		JAN.16, 1966	UTM	11	6732400.00	606400.00		514	90	D		LS		017271M
299	PATRICIA SILVER	66-2		FEB.06, 1966	UTM	11	6732400.00	606400.00		698	90	D		LS		017271M
300	PATRICIA SILVER	66-3		MAR.02, 1966	UTM	11	6732400.00	606400.00		417	90	D		LS		017271M

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BY K.U.WEYER AND W.C.HORWOOD-BROWN (NHRI-ENVIRONMENT CANADA, MARCH,1983)

NUMBER	COMPANY	HOLE	CLAIM	DATE	SYS Z	NORTH	EAST	ELEV	LENGTH	DIP	I	RECV	LS	OREBDY	NDIAND
301	PATRICIA SILVER	66-4		MAR-13-1966	UTM 11	6732400.00	606400.00		410	90	D		LS		017271M
302	PATRICIA SILVER	66-5		MAR-18-1966	UTM 11	6732400.00	606400.00		428	90	D		LS		017271M
303	PATRICIA SILVER	66-6		MAR-24-1966	UTM 11	6732400.00	606400.00		275	90	D		LS		017271M
304	PATRICIA SILVER	66-7		MAR-31-1966	UTM 11	6732700.00	605550.00		276	90	D		LS		017271M
305	PATRICIA SILVER	66-8		APR-06-1966	UTM 11	6732700.00	605550.00		250	50	D		LS		017271M
306	PATRICIA SILVER	66-9		APR-15-1966	UTM 11	6732000.00	605200.00		307	90	D		LS		017271M
307	PATRICIA SILVER	66-10		APR-10-1966	UTM 11	6732000.00	605200.00		326	50	D		LS		017271M
308	PATRICIA SILVER	101	DIAM-7-17	1964	UTM 11	6732330.00	605870.00	705.	143	90	D		L		017271M
309	PATRICIA SILVER	102	DIAM-7-17	1964	UTM 11	6732330.00	605870.00	705.	147	45N	D		L		017271M
310	PATRICIA SILVER	103	DIAM-7-17	1964	UTM 11	6732270.00	605770.00	705.	155	90	D		L		017271M
311	PATRICIA SILVER	104	DIAM-7-17	1964	UTM 11	6732270.00	605770.00	705.	159	45N	D		L		017271M
312	PATRICIA SILVER	105	DIAM-7-17	1964	UTM 11	6732270.00	605770.00	705.	159	45S	D		L		017271M
313	PATRICIA SILVER	106	DIAM-7-17	1964	UTM 11	6732190.00	605650.00	705.	158	90	D		L		017271M
314	PATRICIA SILVER	107	DIAM-7-17	1964	UTM 11	6732190.00	605650.00	705.	156	45N	D		L		017271M
315	PATRICIA SILVER	108	DIAM-7-17	1964	UTM 11	6732190.00	605650.00	705.	161	45S	D		L		017271M
316	PATRICIA SILVER	109	DIAM-7-17	1964	UTM 11	6732100.00	605530.00	705.	159	45N	D		L		017271M
317	PATRICIA SILVER	110	DIAM-7-17	1964	UTM 11	6732100.00	605530.00	705.	167	90	D		L		017271M
318	PATRICIA SILVER	111	DIAM-7-17	1964	UTM 11	6732100.00	605530.00	705.	163	45S	D		L		017271M
319	PATRICIA SILVER	112	DIAM-7-18	1964	UTM 11	6732240.00	605460.00	705.	167	45N	D		L		017271M
320	PATRICIA SILVER	113	DIAM-7-18	1964	UTM 11	6732240.00	605460.00	705.	162	90	D		L		017271M
321	PATRICIA SILVER	114	DIAM-7-18	1964	UTM 11	6732240.00	605460.00	705.	163	45S	D		L		017271M
322	PATRICIA SILVER	115	DIAM-7-18	1964	UTM 11	6732190.00	605350.00	705.	173	90	D		L		017271M
323	PATRICIA SILVER	116	DIAM-7-18	1964	UTM 11	6732190.00	605350.00	705.	161	45N	D		L		017271M
324	PATRICIA SILVER	117	DIAM-7-18	1964	UTM 11	6732190.00	605350.00	705.	161	45S	D		L		017271M
325	PATRICIA SILVER	118	DIAM-7-18	1964	UTM 11	6732190.00	605350.00	705.	166	90	D		L		017271M
326	PATRICIA SILVER	119	DIAM-7-18	1964	UTM 11	6732130.00	605240.00	705.	169	45N	D		L		017271M
327	PATRICIA SILVER	120	DIAM-7-18	1964	UTM 11	6732130.00	605240.00	705.	163	45S	D		L		017271M
328	PATRICIA SILVER	121	DIAM-7-18	1964	UTM 11	6732050.00	605110.00	705.	168	90	D		L		017271M
329	PATRICIA SILVER	122	EV16	1964	UTM 11	6732130.00	604980.00	705.	171	90	D		L		017271M
330	PATRICIA SILVER	123	EV16	1964	UTM 11	6732150.00	604980.00	705.	176	45N	D		L		017271M
331	PATRICIA SILVER	124	EV16	1964	UTM 11	6732150.00	604980.00	705.	171	45S	D		L		017271M
332	PATRICIA SILVER	125	EV16	1964	UTM 11	6732050.00	604900.00	705.	169	90	D		L		017271M
333	PATRICIA SILVER	126	EV16	1964	UTM 11	6732050.00	604900.00	705.	177	45N	D		L		017271M
334	PATRICIA SILVER	127	EV16	1964	UTM 11	6732050.00	604900.00	705.	176	45S	D		L		017271M
335	PATRICIA SILVER	128	EV16	1964	UTM 11	6731930.00	604990.00	705.	188	90	D		L		017271M
336	PATRICIA SILVER	129	EV16	1964	UTM 11	6731930.00	604990.00	705.	173	45N	D		L		017271M
337	PATRICIA SILVER	130	EV16	1964	UTM 11	6731930.00	604990.00	705.	178	45S	D		L		017271M
338	PATRICIA SILVER	131	EV16	1964	UTM 11	6731920.00	604830.00	705.	162	90	D		L		017271M
339	PATRICIA SILVER	132	EV16	1964	UTM 11	6731920.00	604830.00	705.	159	45N	D		L		017271M
340	PINE POINT MNS.	71		NOV-26-1948	UTM 11	6747939.99	636867.96	720.9	245	90	D		LS		061614M
341	PINE POINT MNS.	74		FEB-07-1950	UTM 11	6743142.31	632141.92	760.4	385.4	90	D	60.9	LS		061614M
342	*PINE POINT MNS.	78-5-1	AJME74	NOV-02-1980	UTM 11	6762200.61	647612.95	600.18	83.0	90	D	34.0	L		081332M
343	*PINE POINT MNS.	78-5-2	AJME74	NOV-03-1980	UTM 11	6762205.53	647609.70	601.26	150	90	D	60.3	LS		081332M
344	*PINE POINT MNS.	78-5-3	AJME74	NOV-09-1980	UTM 11	6762204.06	647637.49	600.41	93	90	D	17.6	L		081332M
345	*PINE POINT MNS.	78-5-4	AJME74	NOV-08-1980	UTM 11	6762178.00	647614.57	600.13	130	90	D	86.3	LS		081332M
346	*PINE POINT MNS.	78-5-5	AJME74	NOV-09-1980	UTM 11	6762204.77	647569.02	600.52	150	90	D	65.9	L		081332M
347	PINE POINT MNS.	108		OCT-24-1949	UTM 11	6759248.64	642624.68	612.5	226.6	90	D	73	L		061604M
348	PINE POINT MNS.	109		NOV-04-1949	UTM 11	6759361.43	643362.42	607.2	223	90	D	96	L		061604M
349	PINE POINT MNS.	110		NOV-09-1949	UTM 11	6759833.72	642981.54	595.3	119	90	D	68	L		061604M
350	PINE POINT MNS.	129		NOV-12-1949	UTM 11	6759152.16	643521.85	607.3	115	90	D	98	L		061604M

DATA COLLECTION BORBNK: TECHNICAL DATA FOR MINERAL EXPLORATION BOREHOLES AND OIL WELLS IN THE PINE POINT AREA

BY K.U.WEYER AND W.C.HORWOOD-BROWN (NHRI-ENVIRONMENT CANADA, MARCH,1983)

NUMBER	COMPANY	HOLE	CLAIM	DATE	SYS. Z	NORTH	EAST	ELEV	LENGTH	DIP	T	RECV	LS	OREBDY	NDIAND
351	PINE POINT MNS.	131		NOV. 1949	UTM 11	6759723.09	643930.38	606.4	171	90	D 78	L			061604M
352	PINE POINT MNS.	376	AB34	AUG. 08, 1951	UTM 11	6759554.02	644177.30	612.9	132	90	D 80	9 L			061604M
353	PINE POINT MNS.	383	AC34	AUG. 11, 1951	UTM 11	6758198.40	641581.78	607.9	92	90	D 93	4 L			061604M
354	PINE POINT MNS.	387	AB33	AUG. 13, 1951	UTM 11	6758377.97	641808.50	606.0	77	90	D 83	7 L			061604M
355	PINE POINT MNS.				UTM 11	6758397.12	642034.92	606.0	77	90	D 95	8 L			061604M
356	PINE POINT MNS.	390	AC33	AUG. 15, 1951	UTM 11	6758803.14	642298.43	607.2	67	90	D 97	3 L			061604M
357	PINE POINT MNS.	391	AC32	AUG. 16, 1951	UTM 11	6759008.05	642302.03	605.9	177	90	D 96	0 L			061604M
358	PINE POINT MNS.	395	AC31	AUG. 20, 1951	UTM 11	6759369.78	642946.53	617.5	180	90	D 90	1 L			061604M
359	PINE POINT MNS.	400	AF32	AUG. 24, 1951	UTM 11	6760088.42	642798.24	585.1	153	90	D 83	4 L			061604M
360	PINE POINT MNS.	406	AF32	AUG. 28, 1951	UTM 11	6760318.32	642611.95	579.7	126	90	D 92	3 L			061604M
361	PINE POINT MNS.	409	AC31	AUG. 30, 1951	UTM 11	6759712.26	643302.38	608.3	175	90	D 83	5 L			061604M
362	PINE POINT MNS.	415	AD30	SEPT. 02, 1951	UTM 11	6759736.87	643432.99	604.9	138	90	D 73	9 L			061604M
363	PINE POINT MNS.	419	AD30	SEPT. 06, 1951	UTM 11	6759743.59	643511.23	604.9	119	90	D 57	9 L			061604M
364	PINE POINT MNS.	424	AD30	SEPT. 10, 1951	UTM 11	6760003.39	643632.68	604.3	125	90	D 92	7 L			061604M
365	PINE POINT MNS.	981	F38	SEPT. 20, 1962	UTM 11	6753283.77	641132.65	667.36	421	84	D 62				061604M
366	PINE POINT MNS.	1216		APR. 1964	UTM 11	6751800.30	639443.82	661.8	165	90	D 92	L			017352M
367	PINE POINT MNS.	1217		APR. 1964	UTM 11	6752792.16	639292.17	658.0	200	90	D 66	L			017352M
368	PINE POINT MNS.	1218		APR. 1964	UTM 11	6752795.02	639255.88	642.7	220	90	D 71	L			017352M
369	PINE POINT MNS.	1337		SEPT. 18, 1964	UTM 11	6748546.24	630408.08	679.6	173	90	D 86	5 L			061604M
370	PINE POINT MNS.	1338		NOV. 16, 1964	UTM 11	6749982.67	628809.09	594.55	108	90	D 65	8 L		264M	019518M
371	PINE POINT MNS.	1339		DEC. 11, 1964	UTM 11	6751228.56	628347.30	578.74	103	90	D 48	L			019518M
372	PINE POINT MNS.	1340		DEC. 22, 1964	UTM 11	6752335.97	637804.72	591.	201	90	D 69	4 L			019518M
373	PINE POINT MNS.	1342			UTM 11	6752341.20	637755.94	591.	252	90	D 88	5 L			019518M
374	PINE POINT MNS.	1344			UTM 11	6752341.60	637755.94	591.9	236	90	D 93	3 L			019518M
375	PINE POINT MNS.	1345			UTM 11	6752450.45	633047.83	591.9	232	90	D 89	6 L			019518M
376	PINE POINT MNS.	1346	VV96	FEB. 08, 1965	UTM 11	6751287.06	628327.96	571.24	251	90	D 69	1 L			019518M
377	PINE POINT MNS.	1350	1197	FEB. 17, 1965	UTM 11	6747634.80	614873.41	630.3	392	90	D 87	4 L			019518M
378	PINE POINT MNS.	1352	B41	MAY 03, 1965	UTM 11	6753971.90	614023.90	628.2	397	90	D 70	7 L			019518M
379	PINE POINT MNS.	1353		MAY 08, 1965	UTM 11	6754426.51	639255.65	623.2	352	90	D 67	5 L			019518M
380	PINE POINT MNS.	1354	B41	MAY 12, 1965	UTM 11	6754456.00	639265.35	631.8	350	90	D 91	L			019518M
381	PINE POINT MNS.	1355		MAY 14, 1965	UTM 11	6753079.85	638986.36	615.0	194	90	D 79	L			019518M
382	PINE POINT MNS.	1356	H37	MAY 16, 1965	UTM 11	6753388.11	641144.99	689.6	244	90	D 70	7 L			019518M
383	PINE POINT MNS.	1359	M98	JUN. 17, 1965	UTM 11	6733801.15	612501.79	706.51	642	90	D 70	7 L			019518M
384	PINE POINT MNS.	1360	D101	JUN. 08, 1965	UTM 11	6733801.15	612501.79	665.69	490	90	D 59	8 L			019518M
385	PINE POINT MNS.	1361	F101	JUN. 12, 1965	UTM 11	6733851.59	612741.52	680.67	490	90	D 85	L			019518M
386	PINE POINT MNS.	1362	H100	JUN. 08, 1965	UTM 11	6737640.27	613117.39	680.52	483	90	D 59	L	ORE		019518M
387	PINE POINT MNS.	1363	I100	JUN. 21, 1965	UTM 11	6737077.64	613427.84	685.98	410	90	D 83	1 L			019518M
388	PINE POINT MNS.	1364	N98	JUN. 19, 1965	UTM 11	6737435.55	614316.47	717.84	415	90	D 75	8 L			019518M
389	PINE POINT MNS.	1365		JUN. 20, 1965	UTM 11	6751944.66	635174.72	723.87	170	90	D 92	L			019518M
390	PINE POINT MNS.	1366		JUN. 22, 1965	UTM 11	6752050.89	635161.31	665.36	110	90	D 83	L			019518M
391	PINE POINT MNS.	1367			UTM 11	6752558.71	635018.77		110	90	D 77	L			019518M
392	PINE POINT MNS.	1368	N98	JUN. 20, 1965	UTM 11	6753666.73	636530.61	723.87	201	90	D 76	L			019518M
393	PINE POINT MNS.	1369	B100	JUN. 22, 1965	UTM 11	6754018.80	614338.45	663.74	417	90	D 93	8 L			019518M
394	PINE POINT MNS.	1370	C99		UTM 11	6753982.61	613492.49	665.36	404	90	D 81	4 L			019518M
395	PINE POINT MNS.	1371			UTM 11	6753982.61	613492.49			90	D 81	4 L			019518M
396	PINE POINT MNS.	1372	D99	JUN. 27, 1965	UTM 11	6739504.92	613679.79	667.54	337	90	D 73	6 L			019518M
397	PINE POINT MNS.	1373	F98	JUN. 24, 1965	UTM 11	6738963.07	613992.35	680.50	360	90	D 68	5 L			019518M
398	PINE POINT MNS.	1374		JUN. 26, 1965	UTM 11	6738923.73	614047.84	681.62	464	90	D 67	5 L			019518M
399	PINE POINT MNS.	1375	N92	JUN. 28, 1965	UTM 11	673696.30	617049.42	720.55	455	90	D 89	9 L			019518M
400	PINE POINT MNS.	1376	L89	JUN. 30, 1965	UTM 11	6738214.48	617981.61	721.31	495	90	D 90	7 L			019518M

DATA COLLECTION BORBNK: TECHNICAL DATA FOR MINERAL EXPLORATION BOREHOLES AND OIL WELLS IN THE PINE POINT AREA
 BY K.U.WEYER AND W.C.HORWOOD-BROWN (NHRI-ENVIRONMENT CANADA, MARCH,1983)

NUMBER	COMPANY	HOLE	CLAIM	DATE	SYS Z	NORTH	EAST	ELEV	LENGTH	DIP	T	RECV	LS	OREBDY	NDIAND
401	PINE POINT MNS.	1377 I91		JUL-03-1965	UTM 11	6739272.72	617380.17	706.59	472	90	D	75.5	LS		019518M
402	PINE POINT MNS.	1378 F98		JUL-04-1965	UTM 11	6740253.47	616817.42	690.09	468	90	D	73.4	LS		019518M
403	PINE POINT MNS.	1379 E98		JUL-03-1965	UTM 11	6739509.13	613670.49	667.02	195	90	D	83.1	LS		019518M
404	PINE POINT MNS.	1380 B94		JUL-08-1965	UTM 11	6741583.75	616047.42	675.33	444	90	D	83.6	LS		019518M
405	PINE POINT MNS.	1381 A94		JUL-10-1965	UTM 11	6741965.75	615829.45	676.95	465	90	D	82.1	LS		019518M
406	PINE POINT MNS.	1382 B94		JUL-06-1965	UTM 11	6741515.47	616088.28	679.91	450	90	D	85.5	LS		019518M
407	PINE POINT MNS.	1383 Y92		JUL-14-1965	UTM 11	6743173.43	616624.11	655.3	562	90	D	89.2	LS		019518M
408	PINE POINT MNS.	1384 XX92		JUL-17-1965	UTM 11	6743523.34	616408.50	648.7	473	90	D	88.2	LS		019518M
409	PINE POINT MNS.	1385 A91		JUL-29-1965	UTM 11	6742545.50	617024.12	679.8	126	90	D	79.4	LS		019518M
410	PINE POINT MNS.	1386 C90		AUG-05-1965	UTM 11	6741760.63	617519.74	690.8	483	90	D	78.0	LS		019518M
411	PINE POINT MNS.	1387 E89		AUG-09-1965	UTM 11	6741141.64	617907.62	694.0	477	90	D	82.8	LS		019518M
412	PINE POINT MNS.	1388 G88		AUG-13-1965	UTM 11	6740650.00	618223.02	702.6	475	90	D	79.4	LS		019518M
413	PINE POINT MNS.	1389 XX92		JUL-28-1965	UTM 11	6743493.00	616427.83	645.8	200	90	D	94.6	LS		019518M
414	PINE POINT MNS.	1390 A91		AUG-01-1965	UTM 11	6742437.86	616913.31	679.8	264	90	D	74.6	LS		019518M
415	PINE POINT MNS.	1391 C87		AUG-17-1965	UTM 11	6742900.03	618905.39	669.6	367	90	D	69.0	LS		019518M
416	PINE POINT MNS.	1392 D86		AUG-23-1965	UTM 11	6742334.86	619235.59	686.4	450	90	D	69.4	LS		019518M
417	PINE POINT MNS.	1393 E86		AUG-29-1965	UTM 11	6741267.80	619335.34	709.4	343	90	D	69.6	LS		019518M
418	PINE POINT MNS.	1395 C77		SEPT-04-1965	UTM 11	6745134.88	623596.39	653.48	160	90	D	82.8	LS		019518M
419	PINE POINT MNS.	1396 SS103		SEPT-07-1965	UTM 11	6743955.47	611651.89	588.6	352	90	D	81.5	LS		019518M
420	PINE POINT MNS.	1397 C77		SEPT-07-1965	UTM 11	6745102.82	623613.34	633.6	257	90	D	80.5	LS		019518M
421	PINE POINT MNS.	1398 D76		SEPT-10-1965	UTM 11	6744723.73	623805.88	641.58	100	90	D	64.8	LS		019518M
422	PINE POINT MNS.	1399 D76		SEPT-11-1965	UTM 11	6744804.42	623764.97	640.7	134	90	D	64.8	LS		019518M
423	PINE POINT MNS.	1413 B80		SEPT-14-1965	UTM 11	6744823.05	621933.31	635.9	53	90	D	71.8	LS		019518M
424	PINE POINT MNS.	1414 B80		SEPT-14-1965	UTM 11	6744882.76	621987.42	631.3	171	90	D	74.5	LS		019518M
425	PINE POINT MNS.	1415 Y81/z81		SEPT-16-1965	UTM 11	6744628.76	630429.47	631.3	287	90	D	74.5	LS		019518M
426	PINE POINT MNS.	1416 A80		SEPT-20-1965	UTM 11	6745045.27	621900.67	632.21	383	90	D	71.5	LS		019518M
427	PINE POINT MNS.	1417 Z81		SEPT-20-1965	UTM 11	6746261.27	621293.73	631.4	357	90	D	68.6	LS		019518M
428	PINE POINT MNS.	1418 A80		SEPT-24-1965	UTM 11	6745150.82	621866.24	631.4	558	90	D	67.8	LS		019518M
429	PINE POINT MNS.	1419 E79		SEPT-24-1965	UTM 11	6744047.92	622386.33	648.3	325	90	D	47.8	LS		019518M
430	PINE POINT MNS.	1420 B74		SEPT-17-1965	UTM 11	6746451.35	624357.26	656.7	341	90	D	73	LS		019518M
431	PINE POINT MNS.	1421 B74		SEPT-24-1965	UTM 11	6746370.09	624599.19	631.1	152	90	D	80.2	LS		019518M
432	PINE POINT MNS.	1422 A80		SEPT-27-1965	UTM 11	6745149.74	621846.78	631.1	143	90	D	71.8	LS		019518M
433	PINE POINT MNS.	1423 B71		SEPT-27-1965	UTM 11	6747149.07	625873.75	607.54	225	90	D	74.5	LS		019518M
434	PINE POINT MNS.	1424 E79		SEPT-27-1965	UTM 11	6744112.29	623350.33	648.3	325	90	D	47.8	LS		019518M
435	PINE POINT MNS.	1425 E79		SEPT-27-1965	UTM 11	6744112.29	623350.33	656.7	524	90	D	58.3	LS		019518M
436	PINE POINT MNS.	1426 C80		SEPT-30-1965	UTM 11	6744508.05	622160.71	641.2	404	90	D	65.9	LS		019518M
437	PINE POINT MNS.	1427 Z71		JUL-09-1966	UTM 11	6747908.84	625806.03	597.78	101	90	D	50	LS		019518M
438	PINE POINT MNS.	1428 P97		SEPT-21-1966	UTM 11	6734633.73	614615.42	746.5	500	90	D	69	LS		019518M
439	PINE POINT MNS.	1432 UU94		SEPT-21-1966	UTM 11	6744911.15	615456.89	641.2	435	90	D	64.7	LS		019518M
441	PINE POINT MNS.	1434 UU94		SEPT-22-1966	UTM 11	6744781.31	615537.61	631.1	285	90	D	82.6	LS		019518M
442	PINE POINT MNS.	1435 UR96		SEPT-24-1966	UTM 11	6744276.93	613262.29	631.1	513	90	D	91.5	LS		019518M
443	PINE POINT MNS.	1436 RP96		SEPT-26-1966	UTM 11	6744291.79	613252.54	607.54	410	90	D	95.5	LS		019518M
444	PINE POINT MNS.	1437 PP102		SEPT-29-1966	UTM 11	6744092.12	610226.69	646.6	466	90	D	95.5	LS		019518M
445	PINE POINT MNS.	1438 PP102		SEPT-30-1966	UTM 11	6744114.23	610227.50	646.6	411	90	D	96.5	LS		019518M
446	PINE POINT MNS.	1439 UU94		OCT-03-1966	UTM 11	6745026.06	615380.46	741.41	265	90	D	97.5	LS		017998M
447	PINE POINT MNS.	1440 ZINC17		JUN-16-1967	UTM 11	6745182.15	638116.53	750.96	165	90	D	74.7	LS		017998M
448	PINE POINT MNS.	1441 ZINC26		JUN-17-1967	UTM 11	6744244.49	636645.50	750.96	180	90	D	79.4	LS		017998M
449	PINE POINT MNS.	1442 FH1		JUN-18-1967	UTM 11	6731690.87	612224.62	750.96	432	90	D	81.1	LS		017998M
450	PINE POINT MNS.	1443 A09		JUN-26-1967	UTM 11	6752327.07	631395.02	586.67	157.5	90	D	80	LS		017998M

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NUMBER	COMPANY	HOLE	CLAIM	DATE	SYS	Z	NORTH	EAST	ELEV	LENGTH	DIP	T	RECV	LS	ORE	BDY	NDI	AND
451	PINE POINT MNS.	1444 A03		JUN-22-1967	UTM	11	67511610.44	629421.13		150	90	D	61.1	LS			017998M	
452	PINE POINT MNS.	1445 A09		MAR-30-1968	UTM	11	6752281.09	631387.84	589.8	206	90	D	98.4	LS			018021M	
453	PINE POINT MNS.	1446 WMS8		APR-01-1968	UTM	11	67511610.44	629421.13	593.8	197	90	D	76.4	LS			018019M	
454	PINE POINT MNS.	1447 YV57		MAR-29-1968	UTM	11	6750415.67	633262.47	590.6	202	90	D	95.3	LS			018019M	
455	PINE POINT MNS.	1448 A56		APR-02-1968	UTM	11	6750415.67	633262.47	612.53	120	90	D	60.4	LS	A55		018020M	
456	PINE POINT MNS.	1449 VV48		APR-18-1968	UTM	11	6755263.37	635920.05	590.8	200	90	D	86.4	LS			018035M	
457	PINE POINT MNS.	1450 Z258		APR-03-1968	UTM	11	6750415.67	633262.47	590.8	200	90	D	86.4	LS	A55		018035M	
458	PINE POINT MNS.	1450A Z258		APR-17-1968	UTM	11	6750415.67	633262.47	610.4	76	90	D	95	LS	A55		018035M	
459	PINE POINT MNS.	1451 A05		APR-18-1968	UTM	11	6751638.23	630317.06	588.4	227	90	D	96	LS			018031M	
460	PINE POINT MNS.	1452 XX-1-61		APR-20-1968	UTM	11	6750929.19	630640.31	595.4	204	90	D	88.4	LS			018030M	
461	PINE POINT MNS.	1453 A-1-62		APR-21-1968	UTM	11	6749672.82	630241.60	602.7	135	90	D	50.6	LS			018020M	
462	PINE POINT MNS.	1453A A-1-62		APR-22-1968	UTM	11	6749672.82	630241.60	602.7	115	90	D	50.6	LS			018020M	
463	PINE POINT MNS.	1454 E60		APR-23-1968	UTM	11	6748153.73	631156.55	606.5	200	90	D	83.5	LS			018031M	
464	PINE POINT MNS.	1455 H59		APR-24-1968	UTM	11	6747100.81	631620.71	588.2	285	90	D	88.9	LS			018031M	
465	PINE POINT MNS.	1456 WM17		APR-15-1968	UTM	11	6749124.02	625378.41	588.2	285	90	D	77.2	LS			018031M	
466	PINE POINT MNS.	1457 B70		APR-05-1968	UTM	11	6747295.52	624338.65	617.65	248	90	D	85.3	LS			018030M	
467	PINE POINT MNS.	1458 XX81		APR-10-1968	UTM	11	6746418.68	621382.75	606.5	255	90	D	69.4	LS			018030M	
468	PINE POINT MNS.	1459 VV48		APR-17-1968	UTM	11	675195.68	635960.75	593.6	202	90	D	96.2	LS			018035M	
469	PINE POINT MNS.	1460 UU51		MAR-27-1968	UTM	11	6754512.41	634547.22	587.33	227	90	D	96.2	LS			018031M	
470	PINE POINT MNS.	1461 VV59		MAR-31-1968	UTM	11	6752275.25	631456.07	587.33	227	90	D	94.1	LS			018031M	
471	PINE POINT MNS.	1463 MC50		MAY-02-1968	UTM	11	6743639.15	634610.06	757.00	225	90	D	89.1	LS			018036M	
472	PINE POINT MNS.	1464 MC43		MAY-02-1968	UTM	11	6743639.15	634610.06	757.00	225	90	D	89.1	LS			018036M	
473	PINE POINT MNS.	1465 MC31		APR-30-1968	UTM	11	6743639.15	634610.06	748.87	261	90	D	72.8	LS			018036M	
474	PINE POINT MNS.	1466 MC17		MAY-05-1968	UTM	11	6743639.15	634610.06	741.97	341	90	D	88	LS			018036M	
475	PINE POINT MNS.	1467 MC17		MAY-07-1968	UTM	11	6743639.15	634610.06	734.96	300	90	D	93.1	LS			018036M	
476	PINE POINT MNS.	1468 MC16		MAY-09-1968	UTM	11	6743639.15	634610.06	730.29	301	90	D	75.9	LS			018036M	
477	PINE POINT MNS.	1469 ZINC2		MAY-11-1968	UTM	11	6743639.15	634610.06	735.87	326	90	D	88.6	LS			018036M	
478	PINE POINT MNS.	1470 ZINC3		MAY-10-1968	UTM	11	6743639.15	634610.06	735.87	326	90	D	88.6	LS			018036M	
479	PINE POINT MNS.	1471 ZINC22		APR-28-1968	UTM	11	6743639.15	634610.06	757.28	227	90	D	79.5	LS			018036M	
480	PINE POINT MNS.	1471A ZINC22		MAY-07-1968	UTM	11	6743639.15	634610.06	757.28	227	90	D	79.5	LS			018036M	
481	PINE POINT MNS.	1472 ZINC25		MAY-09-1968	UTM	11	6743639.15	634610.06	755.58	291	90	D	92.4	LS			018036M	
482	PINE POINT MNS.	1473 DS821		MAY-15-1968	UTM	11	6743639.15	634610.06	755.58	273	90	D	91.6	LS			018036M	
483	PINE POINT MNS.	1473A DS821		MAY-17-1968	UTM	11	6743639.15	634610.06	754.57	120	90	D	-	LS			018036M	
484	PINE POINT MNS.	1473B DS821		MAY-19-1968	UTM	11	6743639.15	634610.06	754.57	120	90	D	93.8	LS			018036M	
485	PINE POINT MNS.	1474 DS819		MAY-23-1968	UTM	11	6743639.15	634610.06	770.91	392	90	D	85.9	LS			018036M	
486	PINE POINT MNS.	1474A DS819		MAY-25-1968	UTM	11	6743639.15	634610.06	770.91	392	90	D	85.9	LS			018036M	
487	PINE POINT MNS.	1475 A70		MAR-29-1967	UTM	11	6747809.64	626307.05	603.35	206	90	D	89.7	LS	A70		018025M	
488	PINE POINT MNS.	1476 A70		MAR-21-1967	UTM	11	6747809.64	626307.05	603.35	206	90	D	89.7	LS	A70		018025M	
489	PINE POINT MNS.	1477 A62		SEPT-28-1967	UTM	11	6745505.14	628883.97	593.57	180	90	D	82.6	LS			060368M	
490	PINE POINT MNS.	1478 A61		MAR-24-1967	UTM	11	6749754.92	629091.67	595.54	162	90	D	79.2	LS			060368M	
491	PINE POINT MNS.	1479 A61		MAR-23-1967	UTM	11	6749754.92	629091.67	595.54	162	90	D	79.2	LS			060368M	
492	PINE POINT MNS.	1480 MAC 15		MAR-28-1969	UTM	11	6749754.92	629091.67	597.09	166	90	D	72	LS			060368M	
493	PINE POINT MNS.	1481 BM4		MAY-01-1969	UTM	11	6749754.92	629091.67	685.74	90	90	D	98.3	LS			060368M	
494	PINE POINT MNS.	1482 BM11		MAY-02-1969	UTM	11	6749754.92	629091.67	701.90	148	90	D	84.7	LS			060368M	
495	PINE POINT MNS.	1483 BM16		APR-05-1969	UTM	11	6749754.92	629091.67	692.63	619	90	D	90.5	LS			060368M	
496	PINE POINT MNS.	1484 RM96		MAR-31-1969	UTM	11	6742052.38	633308.75	770.91	130	90	D	53.5	LS			060625M	
497	PINE POINT MNS.	1485 RM25		APR-04-1969	UTM	11	6742052.38	633308.75	597.09	166	90	D	72	LS			060625M	
498	PINE POINT MNS.	1486 RM37		APR-02-1969	UTM	11	6742052.38	633308.75	773.57	130	90	D	89.8	LS			060625M	
499	PINE POINT MNS.	1487 BG7		APR-03-1969	UTM	11	6742052.38	633308.75	761.80	201	90	D	95.4	LS			060625M	
500	PINE POINT MNS.	1489 BR5		MAR-03-1971	UTM	11	6740835.83	611631.77	765.4	131	90	D	94.2	LS			060625M	

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NUMBER	COMPANY	HOLE	CLAIM	DATE	SYS Z	NORTH	EAST	ELEV	LENGTH	DIP	T	RECV	LS	OREBDY	NDIAND
501	PINE POINT MNS.	1490 C68		MAR. 11, 1970	UTM	6747158.27	627317.86	625.96	148	90	D	30.1	L		
502	PINE POINT MNS.	1490A C68		MAR. 12, 1970	UTM	6747196.03	627302.24	624.43	62	90	D	80.0	L		
503	PINE POINT MNS.	1490B C68		APR. 05, 1970	UTM	6747360.27	627866.97	630.71	200	90	D	39	L		
504	PINE POINT MNS.	1491 XX70/W70		MAR. 10, 1970	UTM	6749234.73	626409.93	585.94	202	90	D	82.5	L		
505	PINE POINT MNS.	1492		FEB. 06, 1970	UTM	6751591.45	628071.76	551.6	651	90	D	82.5	L		061614M
506	PINE POINT MNS.	1493 A88		APR. 09, 1969	UTM	6743323.76	618674.25	661.40	851	90	D	82.2	L		060625M
507	PINE POINT MNS.	1494 YV89		JAN. 21, 1970	UTM	6744338.09	618084.62	640.58	400	90	D	79.8	L		062042M
508	PINE POINT MNS.	1495 VV90		JAN. 23, 1970	UTM	6745143.86	617631.03	709.99	300	90	D	77.6	L		062042M
509	PINE POINT MNS.	1496 LV90		FEB. 17, 1970	UTM	6736805.37	615223.85	727.04	442	90	D	72.5	L		
510	PINE POINT MNS.	1497 M101		FEB. 12, 1970	UTM	6734808.22	613023.99	727.04	500	90	D	96	L		
511	PINE POINT MNS.	1498 SH1		SEPT. 29, 1969	UTM	6731940.66	611327.04	726.82	557	90	D	88.8	L		060629M
512	PINE POINT MNS.	1499 IVY2		SEPT. 29, 1969	UTM	6735992.23	609265.33	660.45	581	90	D	88.8	L		060629M
513	PINE POINT MNS.	1500 MF15		JAN. 27, 1970	UTM	6738978.25	610179.21	637.84	998	90	D	78	L		060629M
514	PINE POINT MNS.	1501 MAC14		MAR. 28, 1969	UTM	6738978.25	610179.21	637.84	998	90	D	78	L		060629M
515	PINE POINT MNS.	1502 JCS		MAR. 29, 1969	UTM	6749024.41	645822.80	699.59	100	90	D	86.0	L		060368M
516	PINE POINT MNS.	1503 RH57		MAR. 29, 1969	UTM	6748463.54	646176.40	683.59	100	90	D	96.0	L		060368M
517	PINE POINT MNS.	1504 DG1		MAR. 30, 1969	UTM	6748337.08	643764.49	713.27	100	90	D	70.5	L		060368M
518	PINE POINT MNS.	1505 RGS		MAR. 30, 1969	UTM	6747708.89	644054.22	704.27	100	90	D	70.5	L		060368M
519	PINE POINT MNS.	1553 GA32		JUN. 12, 1969	UTM	6738244.56	625322.04	773.27	869	90	D	93.2	L		019186M
520	PINE POINT MNS.	1554 GA34		JUN. 04, 1969	UTM	6737522.08	625707.23	772.46	827	90	D	69.6	L		019186M
521	PINE POINT MNS.	1555 GA66		MAY 23, 1969	UTM	6736675.19	626153.59	782.06	860	90	D	77.9	L		019186M
522	PINE POINT MNS.	1556 GA94		MAY 16, 1969	UTM	6735593.79	626721.74	784.54	877	90	D	77.9	L		019186M
523	PINE POINT MNS.	1603 SH7		MAR. 01, 1971	UTM	6734221.01	610376.83	709.83	432	90	D	96.6	L		060161M
524	PINE POINT MNS.	1604 GA41		MAR. 01, 1971	UTM	6737737.00	629376.83	767.92	395	90	D	96.6	L		060161M
525	PINE POINT MNS.	1605 FH9/10		FEB. 26, 1971	UTM	6731750.17	610129.49	781.06	975	90	D	94.4	L		019152M
526	PINE POINT MNS.	1662(34-1) BG4		FEB. 21, 1970	UTM	6737480.87	632564.29	772.58	1097	90	D	57.5	L		060627M
527	PINE POINT MNS.	1663(35-1) BG25		MAR. 12, 1970	UTM	6739390.50	635334.63	754.11	440	90	D	53.4	L		060627M
528	PINE POINT MNS.	1664(36-1) EV45/51		MAR. 04, 1970	UTM	6735360.68	633606.83	772.06	392	90	D	53.4	L		060627M
529	PINE POINT MNS.	1665(39-1) EV45/51		MAR. 12, 1970	UTM	6733335.72	634634.53	786.92	392	90	D	45.0	L		060627M
530	PINE POINT MNS.	1666(41-1) EV45/51		MAY 01, 1970	UTM	6731272.23	632629.55	832.01	980	90	D	93.1	L		060627M
531	PINE POINT MNS.	1667(42-1) BG4		FEB. 21, 1970	UTM	6737480.87	632564.29	772.58	1097	90	D	57.5	L		060627M
532	PINE POINT MNS.	1668(43-1) BG25		MAR. 12, 1970	UTM	6739390.50	635334.63	754.11	440	90	D	53.4	L		060627M
533	PINE POINT MNS.	1669(46-1) AUD19		MAR. 04, 1970	UTM	6735360.68	633606.83	772.06	392	90	D	53.4	L		060627M
534	PINE POINT MNS.	1670(47-1) TAN13		FEB. 10, 1970	UTM	6728888.13	622558.39	837.32	777	90	D	86.0	L		060627M
535	PINE POINT MNS.	1671(49-1) TAN13		MAR. 16, 1970	UTM	6737882.77	636004.15	749.32	777	90	D	56.6	L		060369M
536	PINE POINT MNS.	1672(50-1) TAN37/45		MAR. 26, 1970	UTM	6728946.03	628187.75	836.45	603	90	D	77.1	L		060627M
537	PINE POINT MNS.	1673(53-1) TAN11/65		FEB. 23, 1970	UTM	6733376.45	626038.91	810.12	637	90	D	50.8	L		060627M
538	PINE POINT MNS.	1674(54-1) TAN100		MAR. 23, 1970	UTM	6739037.25	642366.26	718.75	337	90	D	60.9	L		060627M
539	PINE POINT MNS.	1675(56-1) TK12/13		MAR. 10, 1970	UTM	6741694.70	645018.29	685.56	597	90	D	59.2	L		060369M
540	PINE POINT MNS.	1677(58-1) RH58		APR. 07, 1970	UTM	6747701.04	652105.07	652.53	408	90	D	63.8	L		060627M
541	PINE POINT MNS.	1681(7-1) AD13		JUN. 23, 1970	UTM	6748125.67	626896.93	675.45	460	90	D	45.6	L		060369M
542	PINE POINT MNS.	1682(8-1) AD22		JUN. 23, 1970	UTM	6748125.67	626896.93	675.45	460	90	D	45.6	L		060369M
543	PINE POINT MNS.	1683(9-1) AD33		JUN. 23, 1970	UTM	6748125.67	626896.93	675.45	460	90	D	45.6	L		060369M
544	PINE POINT MNS.	1684 WW3		FEB. 15, 1970	UTM	6750761.80	629892.77	592.56	227	90	D	79	L		060627M
545	PINE POINT MNS.	1685 Z269		FEB. 28, 1970	UTM	6748125.67	626896.93	675.45	460	90	D	45.6	L		060369M
546	PINE POINT MNS.	1688(44-1) EV132		FEB. 17, 1970	UTM	6730151.83	627590.87	832.49	969	90	D	93.2	L		061280M
547	PINE POINT MNS.	1688A Z269		FEB. 16, 1970	UTM	6730151.83	627590.87	832.49	969	90	D	93.2	L		061280M
548	PINE POINT MNS.	1689 Z269		FEB. 24, 1970	UTM	6730151.83	627590.87	832.49	969	90	D	93.2	L		061280M
549	PINE POINT MNS.	1691(26-1) GA21		MAR. 20, 1970	UTM	6739037.25	626940.55	600.20	225	90	D	65	L	N204	060627M
550	PINE POINT MNS.	1692(28-1) GA19		MAR. 20, 1970	UTM	6739037.25	626940.55	600.20	225	90	D	65	L	N204	060627M
					UTM	6738462.80	627015.13	773.79	305	90	D	84.4	L	A70	060626M

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BY K.U.WEYER AND W.C.HORWOOD-BROWN (NHRI-ENVIRONMENT CANADA, MARCH, 1983)

NUMBER	COMPANY	HOLE	CLAIM	DATE	SYS Z	NORTH	EAST	ELEV	LENGTH	DIP	T	RECV	LS	OREBDY	NDIAND
551	PINE POINT MNS.	1693(28-2)	GAT7	MAR.17.1970	UTM	11	6738036.29	627234.88	773.68	500	90	D	88.4	L	060626M
552	PINE POINT MNS.	1695(26-2)	GAT2	MAR.26.1970	UTM	11	6740368.17	627798.49	773.24	450	90	D	88.6	L	060626M
553	PINE POINT MNS.	1696(26-3)	GA2	MAR.21.1970	UTM	11	6739800.95	628097.90	772.84	451	90	D	83.5	LS	060626M
554	PINE POINT MNS.	1701		MAR.16.1971	UTM	11	6745918.09	617184.08	647.95	787	90	D	87	L	061614M
555	PINE POINT MNS.	1704		MAR.04.1971	UTM	11	6743932.13	618318.02	647.87	791	90	D	86.7	LS	061614M
556	PINE POINT MNS.	1706		APR.21.1971	UTM	11	6741966.61	619456.13	713.6	907	90	D	65.4	LS	061614M
557	PINE POINT MNS.	1824		APR.06.1971	UTM	11	6748845.69	629338.17	907.44	203	90	D	95.6	LS	061614M
558	PINE POINT MNS.	1900(11-1)	RM22	APR.20.1970	UTM	11	6742697.95	633741.76	767.33	563	90	D	54.6	L	060627M
559	PINE POINT MNS.	1901(12-1)	RM37	MAR.23.1970	UTM	11	6742668.44	632381.51	764.67	202	90	D	98.9	L	060627M
560	PINE POINT MNS.	1951	SAND24	MAR.03.1971	UTM	11	6735068.11	621673.81	775.49	915	90	D	74.6	L	060627M
561	PINE POINT MNS.	1952		MAR.12.1971	UTM	11	6733192.51	622714.92	804.42	950	90	D	95.5	L	060160M
562	PINE POINT MNS.	1953	SAND101	MAR.13.1971	UTM	11	6731358.38	623588.70	828.79	405	90	D	91.0	L	060162M
563	PINE POINT MNS.	1954	SAND110	MAR.15.1971	UTM	11	6729985.10	624489.50	839.70	202	90	D	82.4	L	060162M
564	PINE POINT MNS.	1956	LOS11	MAR.17.1971	UTM	11	6731782.40	631328.73	822.87	201	90	D	85.9	L	060162M
565	PINE POINT MNS.	1957	NS3	MAR.18.1971	UTM	11	6736934.05	632819.00	773.23	201	90	D	85.5	L	060162M
566	PINE POINT MNS.	1958	RM98	MAR.19.1971	UTM	11	6741442.64	634344.88	752.96	303	90	D	85.6	L	060163M
567	PINE POINT MNS.	1959	LV234	MAR.21.1971	UTM	11	6735582.90	637373.28	762.13	490	90	D	57.4	L	060162M
568	PINE POINT MNS.	1960	EV23	MAR.19.1971	UTM	11	6732050.65	635691.43	788.13	798	90	D	70.4	L	060162M
569	PINE POINT MNS.	1961	JEAN26	MAR.24.1971	UTM	11	6740335.56	642722.38	701.86	185	90	D	75.8	L	060162M
570	PINE POINT MNS.	1962	JEAN11	MAR.26.1971	UTM	11	6743599.97	644664.28	686.24	271	90	D	52.5	L	060162M
571	PINE POINT MNS.	1963	S14	APR.08.1971	UTM	11	6757233.19	653318.12	647.40	201	90	D	89.3	L	019619M
572	PINE POINT MNS.	1964	GG17/18	APR.09.1971	UTM	11	6759101.30	655516.01	629.50	300	90	D	93.1	L	019619M
573	PINE POINT MNS.	1965	LE112	APR.06.1971	UTM	11	6759833.84	658213.20	586.03	245	90	D	92.8	L	019619M
574	PINE POINT MNS.	1966	CE11	APR.04.1971	UTM	11	6757938.37	661115.70	590.27	245	90	D	85.6	L	019619M
575	PINE POINT MNS.	1967	CE8	APR.05.1971	UTM	11	6757577.57	661153.70	590.27	245	90	D	90	L	019619M
576	PINE POINT MNS.	1968	GW32	APR.03.1971	UTM	11	6757104.53	660016.39	608.79	250	90	D	91.6	L	019619M
577	PINE POINT MNS.	1969	GW12	APR.02.1971	UTM	11	6755470.55	660821.72	614.76	359	90	D	91.6	LS	019619M
578	PINE POINT MNS.	1970	GW10	APR.01.1971	UTM	11	6754476.96	661309.78	615.59	321	90	D	80.7	LS	019619M
579	PINE POINT MNS.	1971	GW23	APR.01.1971	UTM	11	6754156.74	661838.50	614.94	291	90	D	68.3	L	019619M
580	PINE POINT MNS.	1972	ZAP27	MAR.31.1971	UTM	11	6752502.74	659279.83	625.07	345	90	D	90.3	L	019619M
581	PINE POINT MNS.	1973	ZAP22	MAR.31.1971	UTM	11	6751571.60	660032.31	625.12	302	90	D	87	L	019619M
582	PINE POINT MNS.	1974	ZAP22	MAR.29.1971	UTM	11	6751027.41	660241.61	624.71	300	90	D	85	L	019619M
583	PINE POINT MNS.	1975	ZAP26	MAR.30.1971	UTM	11	6750134.52	660453.46	623.78	301	90	D	63.9	L	019619M
584	PINE POINT MNS.	1976	PAT20	APR.06.1971	UTM	11	6751573.02	657675.29	607.88	301	90	D	89.6	L	019155M
585	PINE POINT MNS.	1977A	RH64	JUN.02.1971	UTM	11	6747068.17	646288.49	677.91	400	90	D	64.8	L	060828M
586	PINE POINT MNS.	1978	BM7	JUN.13.1971	UTM	11	6755241.51	644965.53	684.61	488	90	D	83.8	LS	019619M
587	PINE POINT MNS.	1979	S12	APR.08.1971	UTM	11	6755286.70	653180.83	656.06	402	90	D	71.4	LS	019609M
588	PINE POINT MNS.	1980	AD42	APR.02.1971	UTM	11	6755107.63	662599.71	606.85	250	90	D	94.5	L	019609M
589	PINE POINT MNS.	1981	MAG33	APR.03.1971	UTM	11	6754329.17	663270.48	541.12	287	90	D	90.2	L	019609M
590	PINE POINT MNS.	1982	AD8	APR.06.1971	UTM	11	6761225.05	661998.52	541.12	287	90	D	87.1	L	019609M
591	PINE POINT MNS.	1983	AD11	APR.05.1971	UTM	11	6759893.38	660557.75	585.13	203	90	D	91	L	060829M
592	PINE POINT MNS.	1984	AD42	APR.04.1971	UTM	11	6758991.35	660942.48	591.33	200	90	D	84.9	L	060829M
593	PINE POINT MNS.	2012	GW32	APR.11.1971	UTM	11	6757049.24	660041.71	607.98	243	90	D	84.4	L	060164M
594	PINE POINT MNS.	2013	GW32	APR.10.1971	UTM	11	6757128.85	660071.28	607.12	243	90	D	99.7	L	019619M
595	PINE POINT MNS.	2014	CE9	APR.12.1971	UTM	11	67557570.45	661096.75	590.85	363	90	D	79.3	L	019619M
596	PINE POINT MNS.	2021	CE11	APR.14.1971	UTM	11	6757923.95	661117.63	587.85	203	90	D	93.6	L	019619M
597	PINE POINT MNS.	2022	GW32	APR.12.1971	UTM	11	6757135.63	660129.23	603.00	244	90	D	90.9	LS	019619M
598	PINE POINT MNS.	2103		MAY 08.1972	UTM	11	6748703.91	636202.70	698.39	514	90	D	90	L	061614M
599	PINE POINT MNS.	2113		MAY 24.1972	UTM	11	6747342.80	636899.88	731.41	606	90	D	92.4	LS	061614M
600	PINE POINT MNS.	2141	DD5	FEB.16.1972	UTM	11	6748023.74	643906.04	707.40	200	90	D	90	L	019872M

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NUMBER	COMPANY	HOLE	CLAIM	DATE	SYS	Z	NORTH	EAST	ELEV	LENGTH	DIP	T	RECV	LS	OREBDDY	NDIAND
601	PINE POINT MNS.	2142 MAC11		FEB.13,1972	-UTM	11	6748829.71	646433.19	674.80	200	90	D	76	L		019872M
602	PINE POINT MNS.	2143 AD1		MAY 03,1972	-UTM	11	6761894.36	661650.83	531.72	205	90	D	92.2	L		
603	PINE POINT MNS.	2144 AD30		MAR.16,1972	-UTM	11	6759362.03	660868.10	589.40	196	90	D	88.9	L		
604	PINE POINT MNS.	2145 AD2		MAR.16,1972	-UTM	11	6758604.41	661072.37	579.99	198	90	D	90.4	L		019872M
605	PINE POINT MNS.	2146 MAG34		MAR.10,1972	-UTM	11	6754310.41	663560.45	609.48	217	90	D	93	LS		
606	PINE POINT MNS.	2147 JEAN31		FEB.27,1972	-UTM	11	6741551.99	640923.33	716.21	346	90	D	62.3	L		019872M
607	PINE POINT MNS.	2148 JEAN18		FEB.26,1972	-UTM	11	6743329.47	644434.56	686.21	563	90	D	74	L		019872M
608	PINE POINT MNS.	2149 JEAN10		FEB.23,1972	-UTM	11	6743059.28	644594.27	686.23	565	90	D	67.3	L		019872M
609	PINE POINT MNS.	2151 GW12/13		MAR.14,1972	-UTM	11	6756447.75	661256.65	603.44	388	90	D	92.7	L		019872M
610	PINE POINT MNS.	2152 GW22/23		MAR.09,1972	-UTM	11	6754162.56	661506.34	616.22	171	90	D	88	L		019872M
611	PINE POINT MNS.	2153 ZAP4		MAR.12,1972	-UTM	11	6748184.60	657632.95	628.44	355	90	D	94.9	L		019872M
612	PINE POINT MNS.	2154 ZOT22		MAR.07,1972	-UTM	11	6749939.95	659498.02	622.67	378	90	D	87	L		019872M
613	PINE POINT MNS.	2155 DIRT4		FEB.11,1972	-UTM	11	6732020.95	623201.99	829.23	396	90	D	87	L		019872M
614	PINE POINT MNS.	2156 GS05		JUN.19,1972	-UTM	11	6756530.01	647968.34	693.30	492	90	D	92.8	L		019872M
615	PINE POINT MNS.	2157 OG5		JUN.26,1972	-UTM	11	6758537.15	654111.89	643.41	332	90	D	95.2	L		019872M
616	PINE POINT MNS.	2158 LF28		MAR.08,1972	-UTM	11	6751796.72	661299.42	623.32	326	90	D	95.3	L		019872M
617	PINE POINT MNS.	2159 DUV1-7		MAR.13,1972	-UTM	11	6753938.66	657137.31	626.10	343	90	D	92.3	L		019872M
618	PINE POINT MNS.	2160 DUV1-33/45		MAR.10,1972	-UTM	11	6752296.94	657147.04	628.10	400	90	D	92.3	LS		019872M
619	PINE POINT MNS.	2161 JEAN44/57		FEB.10,1972	-UTM	11	6748301.50	648017.74	663.06	487	90	D	90.3	L		019872M
620	PINE POINT MNS.	2164 AUD31/32		FEB.05,1972	-UTM	11	6729010.02	613392.82	776.97	302	90	D	93	L		019872M
621	PINE POINT MNS.	2165 PR1		MAR.17,1972	-UTM	11	6759630.80	660269.74	589.28	203	90	D	90.2	LS		019872M
622	PINE POINT MNS.	2166 JEAN8		FEB.29,1972	-UTM	11	6742242.54	645010.91	682.51	286	90	D	48	L		019872M
623	PINE POINT MNS.	2167 TAN1031		MAR.02,1972	-UTM	11	6742242.54	645010.91	682.51	248	90	D	71.4	L		019872M
624	PINE POINT MNS.	2169 TL3/DE5		FEB.19,1972	-UTM	11	6740929.64	619745.30	740.51	237	90	D	98.7	L		019872M
625	PINE POINT MNS.	2180		OCT.06,1972	-UTM	11	6745973.77	637589.59	771.00	664	90	D	84.4	LS		061614M
626	PINE POINT MNS.	2182		MAR.05,1972	-UTM	11	67444891.21	638159.18	723.24	628	90	D	61	LS		061614M
627	PINE POINT MNS.	2238		MAY 01,1972	-UTM	11	6752733.62	656041.63	650.56	304	90	D	94.4	L		019872M
628	PINE POINT MNS.	2260 TK34		MAR.22,1972	-UTM	11	6745227.34	652279.51	650.36	396	90	D	80.8	L		019872M
630	PINE POINT MNS.	2262 LAST13		MAR.21,1972	-UTM	11	6759298.85	659683.10	591.02	239	90	D	92.6	L		019872M
631	PINE POINT MNS.	2403		JAN.24,1973	-UTM	11	6739631.57	620657.49	705.64	823	90	D	90.5	LS		061614M
632	PINE POINT MNS.	2405		JAN.16,1973	-UTM	11	6738011.76	621509.33	743.68	865	90	D	84	LS		061614M
633	PINE POINT MNS.	2406	AUD116	JAN.23,1973	-UTM	11	6732442.67	617434.46	769.45	400	90	D	97.4	L		062041M
634	PINE POINT MNS.	2407	AUD91	JAN.23,1973	-UTM	11	6735283.59	618085.01	767.04	406	90	D	90.0	L		062041M
635	PINE POINT MNS.	2408	AUD6	JAN.26,1973	-UTM	11	6734707.96	619727.09	774.02	156	90	D	98.2	L		019874M
636	PINE POINT MNS.	2409	AUD81	JAN.25,1973	-UTM	11	6734331.75	619809.77	771.93	434	90	D	97.6	L		019874M
637	PINE POINT MNS.	2410 SAND41		JAN.27,1973	-UTM	11	6734322.51	624593.18	778.87	258	90	D	82.5	L		062041M
638	PINE POINT MNS.	2411 DE1/2		FEB.03,1973	-UTM	11	6740701.88	637293.31	735.12	490	90	D	72.1	L		061697M
639	PINE POINT MNS.	2412 TAN10		FEB.10,1973	-UTM	11	6738908.96	635560.13	749.85	271	90	D	70.5	L		061697M
640	PINE POINT MNS.	2413 TAN24		FEB.06,1973	-UTM	11	6737219.67	638169.90	743.08	450	90	D	66	L		080839M
641	PINE POINT MNS.	2414 JEAN28/TAN		JAN.01,1973	-UTM	11	6740879.70	641896.10	705.93	280	90	D	68.5	L		061697M
642	PINE POINT MNS.	2415 TAN89		JAN.27,1973	-UTM	11	6741147.11	644540.56	695.57	312	90	D	64.8	L		019874M
643	PINE POINT MNS.	2416 TAN117		JAN.30,1973	-UTM	11	6742507.91	648393.22	676.43	356	90	D	45.9	LS		019874M
644	PINE POINT MNS.	2417 KL22		JAN.30,1973	-UTM	11	6744620.67	646422.43	681.78	203	90	D	60.7	L		019874M
645	PINE POINT MNS.	2418 KL20		JAN.25,1973	-UTM	11	6744649.18	647033.13	681.85	203	90	D	90	L		019874M
646	PINE POINT MNS.	2419 KL20		JAN.26,1973	-UTM	11	6744890.44	647018.07	682.90	238	90	D	58.3	LS		019874M
647	PINE POINT MNS.	2420 KL19		JAN.29,1973	-UTM	11	6745102.74	647004.13	685.30	205	90	D	68.8	LS		019874M
648	PINE POINT MNS.	2421 TK20/21		JAN.02,1973	-UTM	11	6745243.16	650317.54	660.83	450	90	D	75	L		061697M
649	PINE POINT MNS.	2422 JEAN47/44		JAN.18,1973	-UTM	11	6748197.73	649445.94	651.31	688	90	D	98	L		061697M
650	PINE POINT MNS.	2423 DUVL49		FEB.04,1973	-UTM	11	6751931.21	658247.82	628.55	403	90	D	82.2	L		019874M

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 BY K.U.WEYER AND W.C.HORWOOD-BROWN (NHRI-ENVIRONMENT CANADA, MARCH, 1983)

NUMBER	COMPANY	HOLE	CLAIM	DATE	SYS	Z	NORTH	EAST	ELEV	LENGTH	DIP	T	RECV	LS	OREBDY	NDIAND
651	PINE POINT MNS.	2424 ZOT33		FEB. 08, 1973	UTM	11	6759876.29	659631.82	628.87	764	90	D 76	L			019874M
652	PINE POINT MNS.	2425 ZAP20		FEB. 07, 1973	UTM	11	6751890.87	659611.30	626.15	162	90	D 93	L			019874M
653	PINE POINT MNS.	2426 DUVL48		FEB. 07, 1973	UTM	11	6751890.87	659611.30	626.15	162	90	D 86.5	L			019874M
654	PINE POINT MNS.	2427 ZAP28		FEB. 02, 1973	UTM	11	6752022.72	658215.62	626.04	353	90	D 74	L			019874M
655	PINE POINT MNS.	2428 ZAP28		FEB. 03, 1973	UTM	11	6752022.72	658215.62	626.04	353	90	D 88.8	LS			019874M
656	PINE POINT MNS.	2429 LF21/22		FEB. 01, 1973	UTM	11	6751640.31	661972.03	623.25	317	90	D 91.9	L			061697M
657	PINE POINT MNS.	2430 TK9/PR9		JAN. 28, 1973	UTM	11	6756978.01	662203.29	583.36	202	90	D 81.3	L			061697M
658	PINE POINT MNS.	2431 PR10		JAN. 28, 1973	UTM	11	6757002.14	662283.54	583.36	202	90	D 97	L			019874M
659	PINE POINT MNS.	2432 CM24/25		JAN. 16, 1973	UTM	11	6762041.44	660689.50	564.25	356	90	D 63.7	L			080839M
660	PINE POINT MNS.	2433 OG12		MAR. 02, 1973	UTM	11	6759709.70	655043.71	647.12	155	90	D 89.5	L			080839M
661	PINE POINT MNS.	2434 OG24		MAR. 01, 1973	UTM	11	6758723.79	655535.22	622.70	282	90	D 89	L			080839M
662	PINE POINT MNS.	2435 PR12		MAR. 02, 1973	UTM	11	6759542.23	657315.69	625.61	280	90	D 70	L			080839M
663	PINE POINT MNS.	2436 BRM5		MAR. 07, 1973	UTM	11	6754835.69	664748.57	702.52	190	90	D 73	L			080839M
664	PINE POINT MNS.	2437 COL4		MAR. 30, 1973	UTM	11	6753632.97	662371.69	615.55	202	90	D 105	L			019874M
665	PINE POINT MNS.	2442 GM22		JAN. 29, 1973	UTM	11	6754662.97	662140.13	611.97	208	90	D 91	L			019874M
666	PINE POINT MNS.	2444 TC50		JAN. 1973	UTM	11	6763156.88	664768.68	523.15	250	90	D 98	LS			019874M
667	PINE POINT MNS.	2449 TC55		JAN. 20, 1973	UTM	11	6763359.40	665270.62	522.02	252	90	D 96	LS			019874M
668	PINE POINT MNS.	2450 TC66/54		JAN. 22, 1973	UTM	11	6763379.30	665448.05	521.05	250	90	D 76.8	L			019874M
669	PINE POINT MNS.	2451 TC65		JAN. 23, 1973	UTM	11	6763419.34	665559.25	521.47	254	90	D 102	L			019874M
670	PINE POINT MNS.	2452 TC135		JAN. 26, 1973	UTM	11	6763928.87	669160.99	524.12	257	90	D 101	LS			019874M
671	PINE POINT MNS.	2453 TC140		JAN. 27, 1973	UTM	11	6764018.11	669293.77	523.85	257	90	D 54	LS			019874M
672	PINE POINT MNS.	2454 TC57		JAN. 28, 1973	UTM	11	6761766.13	665182.76	536.02	252	90	D 74	L			019874M
673	PINE POINT MNS.	2455 TC62		JAN. 25, 1973	UTM	11	6762013.67	665655.11	536.95	251	90	D 84	L			019874M
674	PINE POINT MNS.	2456 Y77		FEB. 15, 1973	UTM	11	6762206.82	641299.61	702.48	651	90	D 48	L			080839M
675	PINE POINT MNS.	2457 Y76		FEB. 12, 1973	UTM	11	6762206.82	641288.06	701.35	652	90	D 61.8	L			080839M
676	PINE POINT MNS.	2458 Y71		FEB. 23, 1973	UTM	11	676080.68	643909.85	700.23	605	90	D 63	L			080839M
677	PINE POINT MNS.	2459 Y67		FEB. 21, 1973	UTM	11	67645813.01	641250.65	710.97	330	90	D 80.8	L			080839M
678	PINE POINT MNS.	2468 Y73		FEB. 26, 1973	UTM	11	67645813.01	644644.48	689.76	605	90	D 69	L			080839M
679	PINE POINT MNS.	2469 TC32		JAN. 19, 1973	UTM	11	67622718.68	664289.36	520.26	256	90	D 94.3	L			019874M
680	PINE POINT MNS.	2470 BR14		FEB. 25, 1973	UTM	11	67639617.01	612478.36	655.06	650	90	D 85.9	L			019874M
681	PINE POINT MNS.	2473 OC10		AUG. 30, 1973	UTM	11	6759714.76	656235.81	621.15	263	90	D 80	LS			061034M
682	PINE POINT MNS.	2474 OWS		AUG. 29, 1973	UTM	11	6760622.92	656996.26	613.01	263	90	D 92	LS			061034M
683	PINE POINT MNS.	2475 PAT23		AUG. 28, 1973	UTM	11	6761124.34	657599.93	601.20	263	90	D 87	LS			061034M
684	PINE POINT MNS.	2487 TC1		SEPT. 06, 1973	UTM	11	6761988.64	663295.67	533.19	323	90	D 52	LS			061500M
685	PINE POINT MNS.	2488 TC2		SEPT. 1973	UTM	11	6762237.36	663162.60	541.40	105	90	D 100	LS			061500M
686	PINE POINT MNS.	2489 TC1		SEPT. 06, 1973	UTM	11	6762669.89	663309.40	518.29	125	90	D 67	LS			061500M
687	PINE POINT MNS.	2490 TC15		1973	UTM	11	6761861.77	663684.02	531.03	200	90	D 51	LS			061034M
688	PINE POINT MNS.	2491 TC10		SEPT. 03, 1973	UTM	11	6762268.90	663862.73	534.13	130	90	D 76	LS			061034M
689	PINE POINT MNS.	2492 TC19		SEPT. 05, 1973	UTM	11	6762559.16	665044.11	529.46	191	90	D 67	LS			061034M
690	PINE POINT MNS.	2493 TC36		SEPT. 10, 1973	UTM	11	6762681.67	664664.36	524.28	148	90	D 56	LS			061034M
691	PINE POINT MNS.	2494 TC39		SEPT. 02, 1973	UTM	11	676170.85	664836.38	530.52	148	90	D 74	LS			061034M
692	PINE POINT MNS.	2495 TC38		SEPT. 02, 1973	UTM	11	6762129.90	664943.38	531.92	100	90	D 93	LS			061034M
693	PINE POINT MNS.	2496 TC54		SEPT. 03, 1973	UTM	11	6762559.16	665044.11	529.46	191	90	D 67	LS			061034M
694	PINE POINT MNS.	2497 GW35		SEPT. 04, 1973	UTM	11	6762745.44	665209.16	529.46	274	90	D 44	LS			061034M
695	PINE POINT MNS.	2500		FEB. 10, 1973	UTM	11	6756083.90	660509.34	614.53	274	90	D 81	L			080839M
696	PINE POINT MNS.	2501 GW47		FEB. 11, 1973	UTM	11	6756479.23	659272.39	617.10	268	90	D 73	L			080839M
697	PINE POINT MNS.	2502 GW49		FEB. 10, 1973	UTM	11	6756479.23	659272.39	617.10	268	90	D 96	L			080839M
698	PINE POINT MNS.	2503 GW53		FEB. 10, 1973	UTM	11	6756479.23	659272.39	617.10	268	90	D 97	L			080839M
699	PINE POINT MNS.	2504 DUVL1		FEB. 14, 1973	UTM	11	6754745.44	657993.84	624.8	303	90	D 90	L			080839M
700	PINE POINT MNS.	2505 DUVL9		FEB. 15, 1973	UTM	11	6754351.36	657188.00	626.9	624	90	D 79	LS			080839M

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NUMBER	COMPANY	HOLE	CLAIM	DATE	SYS	Z	NORTH	EAST	ELEV	LENGTH	DIP	T	RECV	LS	OREBDY	NDIAND
701	PINE	POINT MNS.	2507 DUVL16	FEB-22-1973	UTM	11	6753389.63	656444.45	629.41	344	90	D	72	LS		080839M
702	PINE	POINT MNS.	2508 DUVL17	FEB-23-1973	UTM	11	6753389.63	656444.45	629.41	344	90	D	72	LS		080839M
703	PINE	POINT MNS.	2509 WIN4	MAR-23-1973	UTM	11	6753389.63	656444.45	629.41	344	90	D	72	LS		080839M
704	PINE	POINT MNS.	2572 WIN7	MAR-23-1973	UTM	11	6753389.63	656444.45	629.41	344	90	D	72	LS		080839M
705	PINE	POINT MNS.	2581 WIN3	JUL-09-1973	UTM	11	6747719.36	642224.27	734.34	435	90	D	57.7	LS		061034M
706	PINE	POINT MNS.	2585 Y45	JUL-27-1973	UTM	11	6746833.14	640578.28	727.24	585	90	D	70.1	LS		061034M
707	PINE	POINT MNS.	2586 Y63	APR-08-1973	UTM	11	6746833.14	640578.28	727.24	585	90	D	70.1	LS		061034M
708	PINE	POINT MNS.	2633	FEB-21-1973	UTM	11	6746833.14	640578.28	727.24	585	90	D	70.1	LS		061034M
709	PINE	POINT MNS.	2636	MAR-07-1973	UTM	11	6746833.14	640578.28	727.24	585	90	D	70.1	LS		061034M
710	PINE	POINT MNS.	2642 HAN2	FEB-24-1973	UTM	11	6741273.26	629457.91	764.39	318	90	D	75	LS		019871M
711	PINE	POINT MNS.	2842 AUD66/67	MAR-22-1974	UTM	11	6736805.67	623129.27	769.22	885	90	D	68	LS		061504M
712	PINE	POINT MNS.	2939 SAND75	FEB-21-1974	UTM	11	6736805.67	623129.27	769.22	885	90	D	68	LS		061504M
713	PINE	POINT MNS.	2940 SAND57/68	FEB-21-1974	UTM	11	6736805.67	623129.27	769.22	885	90	D	68	LS		061504M
714	PINE	POINT MNS.	2941 TAN57/69	FEB-03-1974	UTM	11	6740431.40	642220.33	702.43	243	90	D	77	LS		061502M
715	PINE	POINT MNS.	2942 JEAN45/56	JAN-24-1974	UTM	11	6748289.02	648686.91	660.37	493	90	D	64	LS		061502M
716	PINE	POINT MNS.	2943 TK12/24	JAN-24-1974	UTM	11	6745631.80	652103.49	653.73	445	90	D	52	LS		061497M
717	PINE	POINT MNS.	2944 ZOT1	JAN-21-1974	UTM	11	6752482.78	659982.96	624.46	205	90	D	69	LS		061497M
718	PINE	POINT MNS.	2945 TAN25/28	FEB-05-1974	UTM	11	6752482.78	659982.96	624.46	205	90	D	69	LS		061497M
719	PINE	POINT MNS.	2946 JEAN33	FEB-04-1974	UTM	11	6742107.27	640320.76	709.66	246	90	D	61.5	LS		061501M
720	PINE	POINT MNS.	2947 KL33	FEB-01-1974	UTM	11	6743598.10	640622.31	675.39	293	90	D	59	LS		061498M
721	PINE	POINT MNS.	2948 KL4/16	JAN-29-1974	UTM	11	6745427.36	646171.51	682.22	535	90	D	75	LS		061498M
722	PINE	POINT MNS.	2949 CW31	JAN-21-1974	UTM	11	6761754.95	659002.22	587.66	193	90	D	55	LS		061501M
723	PINE	POINT MNS.	2950 CW8	FEB-05-1974	UTM	11	6759601.62	657150.16	622.15	190	90	D	91	LS		061501M
724	PINE	POINT MNS.	3141 DONKE128	AUG-09-1974	UTM	11	6734676.98	591815.42	597.04	1065	90	D	91	LS		061503M
725	PINE	POINT MNS.	3142 DONKE128	AUG-03-1974	UTM	11	6733943.05	591924.60	628.40	1075	90	D	93.3	LS		061503M
726	PINE	POINT MNS.	3143 DONKE43	AUG-13-1974	UTM	11	6731477.41	592776.81	680.24	760	90	D	97	LS		061503M
727	PINE	POINT MNS.	3144 GW2	SEPT-03-1974	UTM	11	6730634.03	608476.06	787.93	1020	90	D	96	LS		061503M
728	PINE	POINT MNS.	3145 AHT21	AUG-22-1974	UTM	11	6730679.17	609229.69	770.41	1020	90	D	91	LS		061503M
729	PINE	POINT MNS.	3251 TC75	JAN-14-1975	UTM	11	6762801.51	666142.70	534.55	335	90	D	60.8	LS		080840M
730	PINE	POINT MNS.	3252 TC50/54	JAN-16-1975	UTM	11	6763221.44	665026.70	527.82	275	90	D	60.8	LS		080840M
731	PINE	POINT MNS.	3253 TC55	JAN-17-1975	UTM	11	6761817.09	664649.84	530.77	297	90	D	58.7	LS		080840M
732	PINE	POINT MNS.	3254 TC21/22	JAN-19-1975	UTM	11	6762041.42	663926.66	531.51	445	90	D	61.7	LS		080840M
733	PINE	POINT MNS.	3255 TC6/13	JAN-21-1975	UTM	11	6761098.58	663300.27	533.31	478	90	D	88.4	LS		080840M
734	PINE	POINT MNS.	3256 LF11/12	JAN-24-1975	UTM	11	6752127.44	663043.81	631.9	325	90	D	75.1	LS	N204	080489
735	PINE	POINT MNS.	3257 LF29	JAN-22-1975	UTM	11	6752590.76	660884.04	629.9	325	90	D	55.1	LS	N204	080489
736	PINE	POINT MNS.	3258 ZOT32	FEB-04-1975	UTM	11	6749336.32	659562.17	362	362	90	D	43.6	LS	N204	080489
737	PINE	POINT MNS.	3259 ZAP17	FEB-03-1975	UTM	11	6750363.57	658317.34	380	380	90	D	47.9	LS	N204	080489
738	PINE	POINT MNS.	3260 ZAP8	JAN-26-1975	UTM	11	6751329.61	660334.33	405	405	90	D	58.3	LS	N204	080489
739	PINE	POINT MNS.	3261 ZAP7	JAN-27-1975	UTM	11	6752044.50	658662.11	370	370	90	D	75.3	LS	N204	080489
740	PINE	POINT MNS.	3262 DUVL10	JAN-28-1975	UTM	11	6753356.32	657654.45	363	363	90	D	76.5	LS	N204	080489
741	PINE	POINT MNS.	3263 DUVL55/54	JAN-30-1975	UTM	11	6751637.27	655579.60	640	640	90	D	88.1	LS	N204	080489
742	PINE	POINT MNS.	3264 JEAN65/66	FEB-06-1975	UTM	11	6747703.12	650315.60	782	782	90	D	44.8	LS	N204	080489
743	PINE	POINT MNS.	3265 TK9/21	FEB-12-1975	UTM	11	6745823.44	650887.43	656.94	777	90	D	47.9	LS	N204	080489
744	PINE	POINT MNS.	3266 KL2/15	FEB-17-1975	UTM	11	6745406.28	645420.19	692.37	550	90	D	57.1	LS	N204	080489
745	PINE	POINT MNS.	3267 KL35/36	FEB-23-1975	UTM	11	6743319.78	645248.18	682.26	560	90	D	66.1	LS	N204	080489
746	PINE	POINT MNS.	3268 TAN113	FEB-24-1975	UTM	11	6742458.18	645255.82	640	640	90	D	88.1	LS	N204	080489
747	PINE	POINT MNS.	3269 TAN80/91	FEB-27-1975	UTM	11	6742460.73	645255.82	640	640	90	D	88.1	LS	N204	080489
748	PINE	POINT MNS.	3270 SAND62/63	MAR-27-1975	UTM	11	6733594.73	626677.98	849.93	893	90	D	83.8	LS	N204	080489
749	PINE	POINT MNS.	3271 SAND29/30	MAR-15-1975	UTM	11	6734767.25	624434.86	776.14	880	90	D	80.3	LS	N204	080489
750	PINE	POINT MNS.	3272 SAND72	MAR-09-1975	UTM	11	6734229.19	622190.65	773.48	915	90	D	93.0	LS	N204	080489

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751	PINE	POINT	MNS.	APR.05.1975	UTM	11	6732589.97	623330.71	817.78	995	90	D	93.8	LS		080840M
752	PINE	POINT	MNS.	JAN.26.1975	UTM	11	6745019.58	620847.83		637	90	D	88	LS		080840M
753	PINE	POINT	MNS.	MAR.16.1976	UTM	11	6756575.79	631193.61	626.97	935	90	D	75	LS		080840M
754	PINE	POINT	MNS.	MAR.11.1976	UTM	11	6756228.08	634013.68	641.51	394	90	D	64	LS		080840M
755	PINE	POINT	MNS.	MAR.11.1976	UTM	11	6756228.08	634013.68	641.51	685	90	D		LS		080840M
756	PINE	POINT	MNS.	JAN.23.1976	UTM	11	6742446.79	639426.19	730.84	662	90	D	60	LS		080840M
757	PINE	POINT	MNS.	JAN.23.1976	UTM	11	6742173.47	639567.19	733.05	683	90	D	65	LS		080840M
758	PINE	POINT	MNS.	JAN.28.1976	UTM	11	6741902.71	639705.04	721.97	783	90	D	57	LS		080840M
759	PINE	POINT	MNS.	JAN.31.1976	UTM	11	6741656.41	639858.99	720.88	653	90	D	41	LS		080840M
760	PINE	POINT	MNS.	FEB.03.1976	UTM	11	6741385.54	639998.75	721.6	685	90	D	37	LS		080840M
761	PINE	POINT	MNS.	FEB.06.1976	UTM	11	6741114.67	640138.52	718.8	631	90	D	42	LS		080840M
762	PINE	POINT	MNS.	FEB.08.1976	UTM	11	6740821.57	640267.66	717.8	671	90	D	43	LS		080840M
763	PINE	POINT	MNS.	FEB.12.1976	UTM	11	6740536.19	640406.90	717.92	443	90	D	43	LS		080840M
764	PINE	POINT	MNS.	MAR.08.1976	UTM	11	6750676.06	651150.78	665.46	425	90	D	81	LS		080840M
765	PINE	POINT	MNS.	MAR.09.1976	UTM	11	6750472.23	651162.84	662.81	425	90	D	79	LS		080840M
766	PINE	POINT	MNS.	MAR.11.1976	UTM	11	6750194.59	651756.91	659.78	423	90	D	86	LS		080840M
767	PINE	POINT	MNS.	MAR.12.1976	UTM	11	6749918.32	651886.07	658.35	405	90	D	51	LS		080840M
768	PINE	POINT	MNS.	MAR.12.1976	UTM	11	6749641.34	652007.87	654.03	405	90	D	51	LS		080840M
769	PINE	POINT	MNS.	MAR.12.1976	UTM	11	6749364.65	652139.21	654.21	433	90	D	61	LS		080840M
770	PINE	POINT	MNS.	MAR.18.1976	UTM	11	6749088.43	652265.84	654.30	436	90	D	81	LS		080840M
771	PINE	POINT	MNS.	MAR.22.1976	UTM	11	6748806.21	652332.61	652.39	505	90	D	55	LS		080840M
772	PINE	POINT	MNS.	MAR.23.1976	UTM	11	6748523.45	652332.61	652.39	505	90	D	55	LS		080840M
773	PINE	POINT	MNS.	MAR.30.1976	UTM	11	6748253.08	652332.61	652.39	505	90	D	55	LS		080840M
774	PINE	POINT	MNS.	MAR.23.1976	UTM	11	6747699.50	652332.61	652.39	505	90	D	55	LS		080840M
775	PINE	POINT	MNS.	MAR.23.1976	UTM	11	6747699.50	652332.61	652.39	505	90	D	55	LS		080840M
776	PINE	POINT	MNS.	MAR.18.1976	UTM	11	6747430.21	653030.52	660.71	415	90	D	78	LS		080840M
777	PINE	POINT	MNS.	MAR.22.1976	UTM	11	6747168.73	653159.11	691.68	188	90	D	73	LS		080840M
778	PINE	POINT	MNS.	MAR.22.1976	UTM	11	6747168.73	653159.11	691.68	188	90	D	73	LS		080840M
779	PINE	POINT	MNS.	MAR.22.1976	UTM	11	6747168.73	653159.11	691.68	188	90	D	73	LS		080840M
780	PINE	POINT	MNS.	MAR.22.1976	UTM	11	6747168.73	653159.11	691.68	188	90	D	73	LS		080840M
781	PINE	POINT	MNS.	MAR.22.1976	UTM	11	6747168.73	653159.11	691.68	188	90	D	73	LS		080840M
782	PINE	POINT	MNS.	MAR.22.1976	UTM	11	6747168.73	653159.11	691.68	188	90	D	73	LS		080840M
783	PINE	POINT	MNS.	MAR.22.1976	UTM	11	6747168.73	653159.11	691.68	188	90	D	73	LS		080840M
784	PINE	POINT	MNS.	MAR.22.1976	UTM	11	6747168.73	653159.11	691.68	188	90	D	73	LS		080840M
785	PINE	POINT	MNS.	MAR.22.1976	UTM	11	6747168.73	653159.11	691.68	188	90	D	73	LS		080840M
786	PINE	POINT	MNS.	MAR.22.1976	UTM	11	6747168.73	653159.11	691.68	188	90	D	73	LS		080840M
787	PINE	POINT	MNS.	MAR.22.1976	UTM	11	6747168.73	653159.11	691.68	188	90	D	73	LS		080840M
788	PINE	POINT	MNS.	MAR.22.1976	UTM	11	6747168.73	653159.11	691.68	188	90	D	73	LS		080840M
789	PINE	POINT	MNS.	MAR.22.1976	UTM	11	6747168.73	653159.11	691.68	188	90	D	73	LS		080840M
790	PINE	POINT	MNS.	MAR.22.1976	UTM	11	6747168.73	653159.11	691.68	188	90	D	73	LS		080840M
791	PINE	POINT	MNS.	MAR.22.1976	UTM	11	6747168.73	653159.11	691.68	188	90	D	73	LS		080840M
792	PINE	POINT	MNS.	MAR.22.1976	UTM	11	6747168.73	653159.11	691.68	188	90	D	73	LS		080840M
793	PINE	POINT	MNS.	MAR.22.1976	UTM	11	6747168.73	653159.11	691.68	188	90	D	73	LS		080840M
794	PINE	POINT	MNS.	MAR.22.1976	UTM	11	6747168.73	653159.11	691.68	188	90	D	73	LS		080840M
795	PINE	POINT	MNS.	MAR.22.1976	UTM	11	6747168.73	653159.11	691.68	188	90	D	73	LS		080840M
796	PINE	POINT	MNS.	MAR.22.1976	UTM	11	6747168.73	653159.11	691.68	188	90	D	73	LS		080840M
797	PINE	POINT	MNS.	MAR.22.1976	UTM	11	6747168.73	653159.11	691.68	188	90	D	73	LS		080840M
798	PINE	POINT	MNS.	MAR.22.1976	UTM	11	6747168.73	653159.11	691.68	188	90	D	73	LS		080840M
799	PINE	POINT	MNS.	MAR.22.1976	UTM	11	6747168.73	653159.11	691.68	188	90	D	73	LS		080840M
800	PINE	POINT	MNS.	MAR.22.1976	UTM	11	6747168.73	653159.11	691.68	188	90	D	73	LS		080840M

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BY K.U.WEYER AND W.C.HORWOOD-BROWN (NHRI-ENVIRONMENT CANADA, MARCH-1983)

NUMBER	COMPANY	HOLE	CLAIM	DATE	SYS Z	NORTH	EAST	ELEV	LENGTH	DIP	T	RECV	LS	OREBDY	NDIAND
801	*PINE POINT MNS.	4607 SAND77		APR.07.1979	UTM 11	6733708.21	6223376.25	792.1	926	90	D	94	LS		080979M
802	*PINE POINT MNS.	4623 IC25		JAN.26.1979	UTM 11	6760284.49	664269.32	538.9	305	90	D	40	LS		080970M
803	*PINE POINT MNS.	4624 IC13		JAN.29.1979	UTM 11	6760655.43	663747.58	535.1	97	90	D	81	LS		080970M
804	*PINE POINT MNS.	4625 IC13		JAN.29.1979	UTM 11	6760892.17	663524.10	534.73	97	90	D	72	LS		080970M
805	*PINE POINT MNS.	4626 IC5		JAN.30.1979	UTM 11	6761178.23	663372.07	534.4	84	90	D	100	LS		080970M
806	*PINE POINT MNS.	4627 CW27		JAN.23.1979	UTM 11	6760770.37	660851.10	556.28	142	90	D	79	LS		080970M
807	*PINE POINT MNS.	4628 CW21		JAN.24.1979	UTM 11	6761262.79	661007.65	551.2	124	90	D	69	LS		080970M
808	*PINE POINT MNS.	4629 CW23		JAN.24.1979	UTM 11	6761718.42	661105.02	553.10	165	90	D	44	LS		080970M
809	*PINE POINT MNS.	4630 CW23		JAN.25.1979	UTM 11	6762636.34	660988.38	526.8	154	90	D	88	LS		080970M
810	*PINE POINT MNS.	4631 TV7		JAN.13.1979	UTM 11	6762797.96	658352.58	514.66	384	90	D	88	LS		080970M
811	*PINE POINT MNS.	4632 TV6		JAN.17.1979	UTM 11	6762344.10	658413.31	515.54	134	90	D	73	LS		080970M
812	*PINE POINT MNS.	4633 TV6		JAN.18.1979	UTM 11	6762066.60	658286.94	520.78	136	90	D	62	LS		080970M
813	*PINE POINT MNS.	4634 LS		JAN.18.1979	UTM 11	6762066.60	658540.23	539.05	250	90	D	99	LS		080970M
814	*PINE POINT MNS.	4635 LS		JAN.19.1979	UTM 11	6761623.86	658391.56	586.05	244	90	D	93	LS		080970M
815	*PINE POINT MNS.	4636 LS		JAN.20.1979	UTM 11	6761427.33	658552.73	585.66	238	90	D	93	LS		080970M
816	*PINE POINT MNS.	4637 LS		JAN.21.1979	UTM 11	6761122.12	658641.80	588.89	224	90	D	88	LS		080970M
817	*PINE POINT MNS.	4638 LS		JAN.22.1979	UTM 11	6760687.91	658523.86	619.90	246	90	D	91	LS		080970M
818	*PINE POINT MNS.	4640 AP5		MAR.27.1980	UTM 11	6750153.04	623599.14		642	90	D	86	LS		081060M
819	*PINE POINT MNS.	4641 AP5		APR.02.1980	UTM 11	6749423.80	623941.66		680	90	D	86	LS		081060M
820	*PINE POINT MNS.	4642 AP6		MAR.19.1980	UTM 11	6752425.73	628994.91	539.77	300	90	D	95.7	LS		081060M
821	*PINE POINT MNS.	4643 AP7		FEB.12.1980	UTM 11	6753269.81	631179.53	548.29	175	90	D	93.7	LS		081060M
822	*PINE POINT MNS.	4643B AP7		FEB.12.1980	UTM 11	6753028.65	631189.18		300	90	D	92.9	LS		081060M
823	*PINE POINT MNS.	4644 AJME322		FEB.20.1979	UTM 11	6758784.28	645683.05	619.50	454	90	D	53	LS		080970
824	*PINE POINT MNS.	4645 AJME4		FEB.15.1979	UTM 11	6760285.10	644811.31	606.28	439	90	D	76	LS		080970
825	*PINE POINT MNS.	4646 AJME357		FEB.15.1979	UTM 11	6760167.16	647945.01	621.49	489	90	D	81	LS		080970
826	*PINE POINT MNS.	4647 AJME71		FEB.19.1979	UTM 11	6762196.20	646945.23	598.06	114	90	D	21	LS		080970
827	*PINE POINT MNS.	4647A AJME71		FEB.12.1979	UTM 11	6762180.37	646867.36	584.97	336	90	D	60	LS		080970
828	*PINE POINT MNS.	4648 AJME420		JAN.31.1979	UTM 11	6761416.28	647317.54	601.27	494	90	D	84	LS		080970
829	*PINE POINT MNS.	4649 AJME157		FEB.03.1979	UTM 11	6760480.56	652435.93	601.07	444	90	D	72	LS		080970
830	*PINE POINT MNS.	4650 AJME141		FEB.06.1979	UTM 11	6764693.84	652174.95	532.68	404	90	D	72	LS		080970
831	*PINE POINT MNS.	4664 JMBS		APR.12.1981	UTM 11	6743435.54	607079.80	548.67	551	90	D	94	LS		081331M
832	*PINE POINT MNS.	4665 JMBS		APR.09.1981	UTM 11	6742597.00	607197.85	550.26	551	90	D	95	LS		081331M
833	*PINE POINT MNS.	5300 RS1		MAR.11.1980	UTM 11	6761416.28	647317.54	384.08	350	90	D	81	LS		081323M
834	*PINE POINT MNS.	5301 AJME320		MAR.13.1980	UTM 11	6760001.74	645360.16	606.33	350	90	D	76	LS		081060
835	*PINE POINT MNS.	5302 RS1		MAR.13.1980	UTM 11	6762961.84	645978.87	555.76	350	90	D	73	LS		081323M
836	*PINE POINT MNS.	5303 RS1		MAR.23.1980	UTM 11	6764711.82	647281.44	558.94	350	90	D	69	LS		081323M
837	*PINE POINT MNS.	5304 AJME81		MAR.20.1980	UTM 11	6763983.49	647969.69	590.19	350	90	D	56.8	LS		081060M
838	*PINE POINT MNS.	5305 AJME83		MAR.20.1980	UTM 11	6763983.49	648347.28	586.11	350	90	D	71.8	LS		081060M
839	*PINE POINT MNS.	5306 AJME		MAR.16.1980	UTM 11	6762066.60	648566.42	598.51	450	90	D	80	LS		081060M
840	*PINE POINT MNS.	5307 AJME111		MAR.18.1980	UTM 11	6762718.44	649167.70	601.97	400	90	D	81.5	LS		081060M
841	*PINE POINT MNS.	5308 AJME26		MAR.23.1980	UTM 11	6760809.08	649886.30	645.45	450	90	D	76.4	LS		081060M
842	*PINE POINT MNS.	5309 AJME134		MAR.26.1980	UTM 11	6764429.24	652101.67	624.54	350	90	D	76.4	LS		081060M
843	*PINE POINT MNS.	5310 AJME192		MAR.28.1980	UTM 11	6763817.35	653950.92	571.32	350	90	D	38.6	LS		081060M
844	*PINE POINT MNS.	5311 AJME17		MAR.24.1980	UTM 11	6762071.88	654836.91	563.26	300	90	D	74.5	LS		081060M
845	*PINE POINT MNS.	5312 AJME410		APR.03.1980	UTM 11	6758153.88	652338.20	656.16	400	90	D	74.5	LS		081060M
846	*PINE POINT MNS.	5389 RS2		MAR.10.1981	UTM 11	6761495.61	643805.74	565.44	400	90	D	74.8	LS		081329M
847	*PINE POINT MNS.	5390 RS2		MAR.08.1981	UTM 11	6759718.24	640891.13	572.76	325	90	D	90.3	LS		081329M
848	*PINE POINT MNS.	5391 RS2		NOV.12.1980	UTM 11	6731283.43	613812.49		1080	90	D	92.5	LS		081330M
849	*PINE POINT MNS.	5303 AP3		FEB.05.1981	UTM 11	6730436.52	628058.28	581.62	250	90	D	73.4	LS		081331M
850	*PINE POINT MNS.	5310 AP3		FEB.02.1981	UTM 11	6730080.66	627829.24	580.	260	90	D	92.5	LS		081331M

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NUMBER	COMPANY	HOLE	CLAIM	DATE	SYS	Z	NORTH	EAST	ELEV	LENGTH	DIP	T	RECV	LS	OREBDY	NDIAND
851	*PINE POINT MNS.	5521 AP5		JAN. 27, 1981	UTM	11	6750074.68	627467.31	580.4	185	90	D	60.8	LS	264N	081331M
852	*PINE POINT MNS.	5567 AP4		FEB. 15, 1981	UTM	11	6748472.18	623667.89	578.4	350	90	D	83.2	LS	A70	081332SM
853	*PINE POINT MNS.	5578 AP4		FEB. 20, 1981	UTM	11	6747964.18	623667.89	578.4	350	90	D	83.2	LS	W85N	081332SM
854	*PINE POINT MNS.	5589 AP4		FEB. 25, 1981	UTM	11	6747587.54	6232454.42	573.3	375	90	D	72.9	LS	W85N	081332SM
855	*PINE POINT MNS.	5590 AP4		FEB. 27, 1981	UTM	11	6747577.31	6232144.83	573.3	375	90	D	72.9	LS	W85N	081332SM
856	*PINE POINT MNS.	5591 AP4		FEB. 26, 1981	UTM	11	6747297.20	622261.63	580.4	350	90	D	74.6	LS	W85N	081332SM
857	*PINE POINT MNS.	5601 AP4		FEB. 27, 1981	UTM	11	6747268.54	621902.63	580.4	350	90	D	83.2	LS	W85N	081332SM
858	*PINE POINT MNS.	5602 AP4		MAR. 03, 1981	UTM	11	6747329.51	621560.84	580.4	350	90	D	74.1	LS	W85N	081332SM
859	*PINE POINT MNS.	5603 AP4		MAR. 21, 1981	UTM	11	6747050.33	621778.02	586.4	428	90	D	68.6	LS	W85N	081332SM
860	*PINE POINT MNS.	5612 AP4		MAR. 05, 1981	UTM	11	6747004.50	621356.28	585.7	425	90	D	80.3	LS	W85N	081332SM
861	*PINE POINT MNS.	5613 AP3		MAR. 05, 1981	UTM	11	6746993.68	621067.12	588.9	425	90	D	84.1	LS	W85N	081332SM
862	*PINE POINT MNS.	5614 SHIRLEY1		MAR. 03, 1981	UTM	11	6746705.99	621202.81	589.7	425	90	D	76.7	LS	W85N	081332SM
863	*PINE POINT MNS.	5615 SHIRLEY1		MAR. 06, 1981	UTM	11	6746441.91	621337.06	598.7	410	90	D	73.3	LS	W85N	081332SM
864	*PINE POINT MNS.	5622 SHIRLEY1		FEB. 26, 1981	UTM	11	6746562.93	621062.26	591.4	425	90	D	58.8	LS	W85N	081332SM
865	*PINE POINT MNS.	5623 AP3		FEB. 26, 1981	UTM	11	6747039.73	620708.26	591.4	425	90	D	78.2	LS	W85N	081332SM
866	*PINE POINT MNS.	5624 SHIRLEY1		FEB. 27, 1981	UTM	11	6746252.89	620733.34	590.3	450	90	D	71.1	LS	W85N	081332SM
867	*PINE POINT MNS.	5763 AJME169		MAR. 29, 1981	UTM	11	6761281.32	642378.35	611.3	450	90	D	82.5	LS	W85N	081331M
868	*PINE POINT MNS.	5764 AJME169		MAR. 31, 1981	UTM	11	6761687.72	642378.35	611.3	450	90	D	82.5	LS	W85N	081331M
869	*PINE POINT MNS.	D-71		JUN. 30, 1950	UTM	11	6757448.08	658000.45	603.0	277	90	D	73.3	LS	W85N	081331M
870	*PINE POINT MNS.	D-74		JUL. 06, 1950	UTM	11	6757793.65	657839.29	603.0	276	90	D	85	LS	W85N	081331M
871	*PINE POINT MNS.	D-76		JUL. 10, 1950	UTM	11	6758613.26	657433.54	607.02	277	90	D	80.3	LS	W85N	081332SM
872	*PINE POINT MNS.	JMB32		APR. 01, 1981	UTM	11	6737387.28	581038.24	705.8	225	90	D	98.3	LS	W85N	081331M
873	*PINE POINT MNS.	JMB32		APR. 04, 1981	UTM	11	6738285.06	581038.17	705.8	225	90	D	98.3	LS	W85N	081331M
874	*PINE POINT MNS.	JMB34		APR. 07, 1981	UTM	11	6737219.32	585749.30	705.8	225	90	D	96.2	LS	W85N	081332SM
875	*PINE POINT MNS.	JMB34		APR. 07, 1981	UTM	11	6738211.6	585749.30	705.8	225	90	D	96.2	LS	W85N	081332SM
876	*PINE POINT MNS.	R61-42 WS1		JAN. 31, 1973	UTM	11	6742108.20	631155.48	766.3	285	90	D	96.2	LS	R61	019872M
877	*PINE POINT MNS.	R61-43 WS1		FEB. 01, 1973	UTM	11	6741999.19	6311209.02	766.3	285	90	D	89.2	LS	R61	019872M
878	*PINE POINT MNS.	R61-47 WS5		FEB. 04, 1973	UTM	11	6742330.22	6311317.23	769.7	283	90	D	81.5	LS	R61	019872M
879	*PINE POINT MNS.	R61-48 CARR1		FEB. 05, 1973	UTM	11	6742322.90	6311317.23	769.7	283	90	D	81.5	LS	R61	019872M
880	*PINE POINT MNS.	R61-58 WS1		FEB. 10, 1973	UTM	11	6742251.47	631154.43	767.2	235	90	D	95.3	LS	R61	019872M
881	*PINE POINT MNS.	RH1		APR. 17, 1964	UTM	11	6750679.23	644705.94	705.8	190	90	R		LS		019872M
882	*PINE POINT MNS.	RH2		APR. 19, 1964	UTM	11	6750763.40	644664.44	705.8	190	90	R		LS		019872M
883	*PINE POINT MNS.	RH3			UTM	11	6750492.23	644804.91	709.7	100	90	R		LS		019872M
884	*PINE POINT MNS.	RH4			UTM	11	6750492.23	644804.91	709.7	100	90	R		LS		019872M
885	*PINE POINT MNS.	RH6			UTM	11	6750648.88	644632.97	708.2	82	90	R		LS		019872M
886	*PINE POINT MNS.	RH7			UTM	11	6750922.75	644593.86	710.5	100	90	R		LS		019872M
887	*PINE POINT MNS.	RH8			UTM	11	6750941.29	644296.16	710.5	100	90	R		LS		019872M
888	*PINE POINT MNS.	RH9			UTM	11	6750416.29	644668.79	708.9	100	90	R		LS		019872M
889	*PINE POINT MNS.	RH10			UTM	11	6750961.53	644382.57	705.4	100	90	R		LS		019872M
890	*PINE POINT MNS.	RH11			UTM	11	6750953.54	644470.32	705.4	100	90	R		LS		019872M
891	*PINE POINT MNS.	RH12		OCT. 1, 1964	UTM	11	67483360.34	639691.95	739.0	150	90	R		LS	042	019518M
892	*PINE POINT MNS.	RH13		OCT. 1, 1964	UTM	11	6748288.38	639691.95	739.0	150	90	R		LS	042	019518M
893	*PINE POINT MNS.	RH14		OCT. 1, 1964	UTM	11	6748167.98	639602.68	739.0	150	90	R		LS	042	019518M
894	*PINE POINT MNS.	RH15		OCT. 1, 1964	UTM	11	6748167.98	639602.68	739.0	150	90	R		LS	042	019518M
895	*PINE POINT MNS.	RH16		OCT. 1, 1964	UTM	11	6748111.93	639475.28	742.0	150	90	R		LS	042	019518M
896	*PINE POINT MNS.	RH17		OCT. 1, 1964	UTM	11	6748242.11	639406.40	742.0	150	90	R		LS	042	019518M
897	*PINE POINT MNS.	RH18		OCT. 1, 1964	UTM	11	6748170.38	639406.40	742.0	150	90	R		LS	042	019518M
898	*PINE POINT MNS.	RH19		OCT. 1, 1964	UTM	11	6749419.82	639406.40	742.0	150	90	R		LS	042	019518M
899	*PINE POINT MNS.	RH20		OCT. 1, 1964	UTM	11	6751287.06	639406.40	742.0	150	90	R		LS	042	019518M
900	*PINE POINT MNS.	RH20		OCT. 1, 1964	UTM	11	6751287.06	639406.40	742.0	150	90	R		LS	042	019518M

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BY K.U.WEYER AND W.C.HORWOOD-BROWN (NHRI-ENVIRONMENT CANADA, MARCH, 1983)

NUMBER	COMPANY	HOLE	CLAIM	DATE	SYS Z	NORTH	EAST	ELEV	LENGTH	DIP	T	RECV	LS	OREBODY	NDIAND
901	PINE POINT MNS.	RH21	F66	OCT. 18, 1964	UTM	11	6751726.30	628179.75	550.15	250	90	R	L		019518M
902	PINE POINT MNS.	RH24	E69	JAN. 20, 1965	UTM	11	6746410.32	628374.20	342	90	R	R	L		
903	PINE POINT MNS.	RH25	E69	JAN. 20, 1965	UTM	11	6746404.00	626741.62	332	90	R	R	L		019518M
904	PINE POINT MNS.	RH26	XX82	JAN. 22, 1965	UTM	11	6746561.47	621142.30	605.5	90	R	R	L		
905	PINE POINT MNS.	RH27	E69	JAN. 26, 1965	UTM	11	6746446.59	626542.08	55	90	R	R	L		
906	PINE POINT MNS.	RH28	E70	JAN. 27, 1965	UTM	11	6746565.04	626481.79	130	90	R	R	L		
907	PINE POINT MNS.	RH29		JAN. 31, 1965	UTM	11	6753819.44	617359.90	287	90	R	R	L		
908	PINE POINT MNS.	RH30			UTM	11	6752465.18	618065.35	300	90	R	R	L		
909	PINE POINT MNS.	RH31		FEB. 09, 1965	UTM	11	6750811.49	618915.39	270	90	R	R	L		
910	PINE POINT MNS.	RH32		FEB. 11, 1965	UTM	11	6749184.89	619751.26	275	90	R	R	L		
911	PINE POINT MNS.	RH33		FEB. 18, 1965	UTM	11	6749867.79	611270.17	260	90	R	R	L		019518M
912	PINE POINT MNS.	RH34		FEB. 21, 1965	UTM	11	6752908.93	632818.11	590.90	90	R	R	L		019518M
913	PINE POINT MNS.	RH35		FEB. 23, 1965	UTM	11	6751918.51	633267.80	200	90	R	R	L		
914	PINE POINT MNS.	RH36		FEB. 25, 1965	UTM	11	6750407.09	632919.17	200	90	R	R	L		
915	PINE POINT MNS.	RH37		FEB. 26, 1965	UTM	11	6750407.09	632919.17	200	90	R	R	L		
916	PINE POINT MNS.	RH38		FEB. 25, 1965	UTM	11	6748239.68	612202.85	275	90	R	R	L		
917	PINE POINT MNS.	RH39		FEB. 27, 1965	UTM	11	6746657.80	613125.41	173	90	R	R	L		
918	PINE POINT MNS.	RH40		MAR. 03, 1965	UTM	11	6751079.99	632923.00	255	90	R	R	L		019518M
919	PINE POINT MNS.	RH41	YY95	MAR. 02, 1965	UTM	11	6742363.06	615594.47	660.73	255	90	R	L	Z53N	019518M
920	PINE POINT MNS.	RH42		MAR. 03, 1965	UTM	11	6753983.80	634152.61	200	90	R	R	L		019518M
921	PINE POINT MNS.	RH43		MAR. 06, 1965	UTM	11	6753521.66	634371.21	590.93	250	90	R	L	Z53N	019518M
922	PINE POINT MNS.	RH44		MAR. 07, 1965	UTM	11	6751406.24	610363.17	250	90	R	R	L		019518M
923	PINE POINT MNS.	RH45		MAR. 08, 1965	UTM	11	6751787.74	630768.31	250	90	R	R	L		019518M
924	PINE POINT MNS.	RH46		MAR. 11, 1965	UTM	11	6751356.96	631012.18	250	90	R	R	L		019518M
925	PINE POINT MNS.	RH47		MAR. 13, 1965	UTM	11	6749498.78	632090.16	250	90	R	R	L		019518M
926	PINE POINT MNS.	RH48	VV90	MAR. 11, 1965	UTM	11	6745413.53	617438.81	628.8	280	90	R	L		019518M
927	PINE POINT MNS.	RH49	XX89	MAR. 14, 1965	UTM	11	6744697.87	617867.52	638.6	280	90	R	L		019518M
928	PINE POINT MNS.	RH50			UTM	11	6750031.62	631784.36	627.2	305	90	R	L		019518M
929	PINE POINT MNS.	RH51		MAR. 18, 1965	UTM	11	6745425.46	615188.26	588.8	250	90	R	L		019518M
930	PINE POINT MNS.	RH52		MAR. 21, 1965	UTM	11	6749408.22	626342.53	592.1	250	90	R	L		019518M
931	PINE POINT MNS.	RH53		MAR. 23, 1965	UTM	11	6748898.46	626563.69	623.6	250	90	R	L		019518M
932	PINE POINT MNS.	RH54	VV94	MAR. 23, 1965	UTM	11	6744656.46	615684.64	632.2	250	90	R	L		019518M
933	PINE POINT MNS.	RH55		MAR. 26, 1965	UTM	11	6746819.42	627485.17	634.1	310	90	R	L		019518M
934	PINE POINT MNS.	RH56	UU90	MAR. 28, 1965	UTM	11	6745997.74	617108.98	620.1	110	90	R	L		019518M
935	PINE POINT MNS.	RH57		MAR. 28, 1965	UTM	11	6747383.43	627229.56	580.5	250	90	R	L		019518M
936	PINE POINT MNS.	RH58	WW75	MAR. 29, 1965	UTM	11	6743169.87	623941.60	610.6	305	90	R	L		019518M
937	PINE POINT MNS.	RH59		MAR. 30, 1965	UTM	11	6742827.61	613213.55	622.8	325	90	R	L		019518M
938	PINE POINT MNS.	RH60		MAR. 31, 1965	UTM	11	6747774.60	623964.35	580.5	160	90	R	L		019518M
939	PINE POINT MNS.	RH61		APR. 01, 1965	UTM	11	6744457.21	612185.06	622.0	118	90	R	L		019518M
940	PINE POINT MNS.	RH62	A74	APR. 02, 1965	UTM	11	6746955.92	624402.02	711.7	130	90	R	L		019518M
941	PINE POINT MNS.	RH63	UU100	APR. 03, 1965	UTM	11	6743402.80	612852.01	610.6	305	90	R	L		019518M
942	PINE POINT MNS.	RH64	C74	APR. 03, 1965	UTM	11	6746049.37	624816.76	622.8	325	90	R	L		019518M
943	PINE POINT MNS.	RH65	E73	APR. 06, 1965	UTM	11	6744964.03	625390.63	622.0	118	90	R	L		019518M
944	PINE POINT MNS.	RH66		APR. 08, 1965	UTM	11	6747307.90	627260.74	711.7	130	90	R	L		019518M
945	PINE POINT MNS.	RH67		APR. 10, 1965	UTM	11	6745859.28	630703.53	732.7	110	90	R	L		019518M
946	PINE POINT MNS.	RH68	G95	APR. 11, 1965	UTM	11	6744804.37	631210.62	694.6	300	90	R	L		019518M
947	PINE POINT MNS.	RH69	L93	APR. 12, 1965	UTM	11	6739361.35	615371.84	726.6	290	90	R	L		019518M
948	PINE POINT MNS.	RH71	M92	APR. 14, 1965	UTM	11	6737471.98	616555.30	708.9	280	90	R	L		019518M
949	PINE POINT MNS.	RH72	YY101	APR. 16, 1965	UTM	11	6736935.34	616905.72	646.08	285	90	R	L		019518M
950	PINE POINT MNS.	RH73		APR. 18, 1965	UTM	11	6741098.70	612761.42							

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BY K.U.WEYER AND W.C.HORWOOD-BROWN (NHRI-ENVIRONMENT CANADA, MARCH, 1983)

NUMBER	COMPANY	HOLE	CLAIM	DATE	SYS	Z	NORTH	EAST	ELEV	LENGTH	DIP	T	RECV	LS	OREBDY	NDIAND
951	PINE POINT MNS.	RH74	A100	APR-21-1965	UTM	11	6740481.67	613118.34	663.04	300	90	R	LS	LS		019518M
952	PINE POINT MNS.	RH75	L96	APR-25-1965	UTM	11	6736983.32	615125.29	699.64	150	90	R	LS	LS		019518M
953	PINE POINT MNS.	RH76		APR-30-1965	UTM	11	6748301.91	639252.61		150	90	R	LS	LS		
954	PINE POINT MNS.	RH77		APR-30-1965	UTM	11	6748306.78	639374.43	740	150	90	R	LS	LS		042
955	PINE POINT MNS.	RH78		MAY 01-1965	UTM	11	6748230.82	639328.67		150	90	R	LS	LS		042
956	PINE POINT MNS.	RH79		MAY 01-1965	UTM	11	6748165.89	639306.87	740	150	90	R	LS	LS		042
957	PINE POINT MNS.	RH80		FEB. 16-1966	UTM	11	6750501.38	647569.00	697	220	90	R	LS	LS		
958	PINE POINT MNS.	RH81	VV43	MAR. 17-1966	UTM	11	6756715.55	638029.72	593.11	200	90	R	LS	LS		
959	PINE POINT MNS.	RH82	WW42	MAR. 18-1966	UTM	11	6755866.86	638661.54	607.23	200	90	R	LS	LS		
960	PINE POINT MNS.	RH83	UU41	MAR. 20-1966	UTM	11	6757510.44	639120.58	586.24	200	90	R	LS	LS		
961	PINE POINT MNS.	RH84	UU40	MAR. 22-1966	UTM	11	6757305.47	639397.83	589.49	200	90	R	LS	LS		
962	PINE POINT MNS.	RH85	WW39	MAR. 24-1966	UTM	11	6757253.51	639564.97	596.97	200	90	R	LS	LS		
963	PINE POINT MNS.	RH86	TT39	APR. 05-1966	UTM	11	6753194.29	639467.69	572.01	200	90	R	LS	LS		
964	PINE POINT MNS.	RH87	UU38	APR. 03-1966	UTM	11	6757906.79	640075.47	593.05	210	90	R	LS	LS		
965	PINE POINT MNS.	RH88	WW37	APR. 06-1966	UTM	11	6757626.17	640839.19	603.31	200	90	R	LS	LS		061604M
966	PINE POINT MNS.	RH89	TT35	APR. 08-1966	UTM	11	6759238.70	641711.72	590.18	100	90	R	LS	LS		
967	PINE POINT MNS.	RH90	SS35	APR. 09-1966	UTM	11	6759968.93	641305.14	563.86	100	90	R	LS	LS		
968	PINE POINT MNS.	RH91	SS33	APR. 11-1966	UTM	11	6760613.97	642293.26	571.67	190	90	R	LS	LS		061604M
969	PINE POINT MNS.	RH92	F37	AUG. 10-1967	UTM	11	6752869.49	640812.75		55	90	R	LS	LS		
970	PINE POINT MNS.	SW-L.1			UTM	11	6744250.00	652300.00		55	90	R	LS	LS		
971	PINE POINT MNS.	SW-L.2			UTM	11	6743350.00	653150.00		200	90	R	LS	LS		
972	PINE POINT MNS.	SW-L.3			UTM	11	6742550.00	653950.00		200	90	R	LS	LS		
973	PINE POINT MNS.	SW-L.4			UTM	11	6741600.00	655000.00		30	90	R	LS	LS		
974	PINE POINT MNS.	SW-L.5			UTM	11	6740900.00	656500.00		80	90	R	LS	LS		
975	PINE POINT MNS.	SW-L.6			UTM	11	6740050.00	656600.00		80	90	R	LS	LS		
976	PINE POINT MNS.	SW-L.7			UTM	11	6739230.00	657400.00		250	90	R	LS	LS		
977	PINE POINT MNS.	SW-L.8			UTM	11	6738450.00	658400.00		165	90	R	LS	LS		
978	PINE POINT MNS.	SW-L.9			UTM	11	6737400.00	659450.00		150	90	R	LS	LS		
979	PINE POINT MNS.	SW-L.10			UTM	11	6728250.00	645800.00		92	90	R	LS	LS		
980	PINE POINT MNS.	SW-L.10A			UTM	11	6728250.00	645800.00		65	90	R	LS	LS		
981	PINE POINT MNS.	SW-L.11			UTM	11	6727550.00	646900.00		50	90	R	LS	LS		
982	PINE POINT MNS.	SW-L.12			UTM	11	6726900.00	647900.00		73	90	R	LS	LS		
983	PINE POINT MNS.	SW-L.17			UTM	11	6731300.00	643000.00		240	90	R	LS	LS		
984	PINE POINT MNS.	SW-L.18			UTM	11	6731300.00	643000.00		140	90	R	LS	LS		
985	PINE POINT MNS.	SW-L.19			UTM	11	6731950.00	641150.00		160	90	R	LS	LS		
986	PINE POINT MNS.	SW-L.20			UTM	11	6732750.00	640100.00		250	90	R	LS	LS		
987	PINE POINT MNS.	SW-L.21			UTM	11	6733550.00	639150.00		230	90	R	LS	LS		
988	PINE POINT MNS.	SW-L.22			UTM	11	6734200.00	638150.00		43	90	R	LS	LS		
989	PINE POINT MNS.	SW-L.23			UTM	11	6735050.00	637150.00		80	90	R	LS	LS		
990	PINE POINT MNS.	SW-L.24			UTM	11	6738700.00	638200.00		270	90	R	LS	LS		
991	PINE POINT MNS.	SW-L.25			UTM	11	6741800.00	639150.00		250	90	R	LS	LS		
992	PINE POINT MNS.	SW-L.28			UTM	11	6721150.00	637800.00		250	90	R	LS	LS		
993	PINE POINT MNS.	SW-L.29			UTM	11	6720600.00	638200.00		180	90	R	LS	LS		
994	PINE POINT MNS.	SW-L.30			UTM	11	6720100.00	638750.00		92	90	R	LS	LS		
995	PINE POINT MNS.	SW-L.31			UTM	11	6719750.00	639100.00		160	90	R	LS	LS		
996	PINE POINT MNS.	SW-L.32			UTM	11	6719200.00	639500.00		150	90	R	LS	LS		
997	PINE POINT MNS.	SW-L.33			UTM	11	6718800.00	639900.00		172	90	R	LS	LS		
998	PINE POINT MNS.	SW-L.34			UTM	11	6718200.00	640400.00		45	90	R	LS	LS		
999	PINE POINT MNS.	W17-53	RH19	JUL-08-1970	UTM	11	6752165.66	649670.97	670.41	348	90	D	52.8	W17		061033M
1000	PYRAMID	W17-53	RH48	NOV. 1-1965	UTM	11	6753046.55	651247.13	664.70	284	90	D	52.8	X15		017298M

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NUMBER	COMPANY	HOLE	CLAIM	DATE	SYS	Z	NORTH	EAST	ELEV	LENGTH	DIP	T	RECV	LS	OREBDY	NDIAND
1001	PYRAMID	2 RH47		NOV.1965	UTM	11	6753234.74	651348.81	662.00	268	90	D	L	X15		017298M
1002	PYRAMID	3 RH48		NOV.01,1965	UTM	11	6753034.90	651361.07	662.67	166	90	D	L	X15		017298M
1003	PYRAMID	5 RH48		JAN.1966	UTM	11	6753034.90	651361.07	662.67	166	90	D	L	X15		017298M
1004	PYRAMID	6 RH48		JAN.1966	UTM	11	6753034.90	651361.07	662.67	166	90	D	L	X15		017298M
1005	PYRAMID	7 RH47		NOV.18,1965	UTM	11	6753168.52	651253.45	664.60	286	90	D	L	X15		017298M
1006	PYRAMID	8 RH48		NOV.23,1965	UTM	11	6753103.04	651311.73	663.90	121	90	D	L	X15		017298M
1007	PYRAMID	10 RH48		JAN.1966	UTM	11	6753033.76	651429.55	662.70	232	90	D	L	X15		017298M
1008	PYRAMID	11 RH47		DEC.03,1965	UTM	11	6753164.36	651315.94	663.90	220	90	D	L	X15		017298M
1009	PYRAMID	12 RH47		JAN.1966	UTM	11	6753093.36	651433.10	661.80	259	90	D	L	X15		017298M
1010	PYRAMID	14 RH48		DEC.1965	UTM	11	6752986.16	651242.95	663.6	161	90	D	L	X15		017298M
1011	PYRAMID	15 RH45		DEC.11,1965	UTM	11	6753051.90	651166.59	665.97	213	90	D	L	X15		017298M
1012	PYRAMID	16A RH48		DEC.17,1966	UTM	11	6753100.41	651370.54	663.30	168.5	90	D	L	X15		017298M
1013	PYRAMID	17 RH48		DEC.1965	UTM	11	6753112.28	651190.46	665.4	228	90	D	L	X15		017298M
1014	PYRAMID	18 RH45		DEC.19,1965	UTM	11	6753115.53	651128.78	665.8	159	90	D	L	X15		017298M
1015	PYRAMID	19 RH45		DEC.22,1965	UTM	11	6753050.24	651124.65	665.3	260	90	D	L	X15		017298M
1016	PYRAMID	20 AD62		DEC.1965	UTM	11	6753207.13	651562.36	660.4	282	90	D	L	X15		017298M
1017	PYRAMID	21 AD62		DEC.30,1965	UTM	11	6753207.13	651562.36	660.4	282	90	D	L	X15		017298M
1018	PYRAMID	24 RH47		JAN.1966	UTM	11	6753160.78	651376.59	663.4	230	90	D	L	X15		017298M
1019	PYRAMID	25 RH47		JAN.1966	UTM	11	6753178.04	651195.98	665.2	146	90	D	L	X15		017298M
1020	PYRAMID	27 RH45		JAN.07,1966	UTM	11	6753122.35	651067.89	665.60	177	90	D	L	X15		017298M
1021	PYRAMID	28 RH45		JAN.1966	UTM	11	6753054.29	651061.99	664.5	257	90	D	L	X15		017298M
1022	PYRAMID	29 AD62		JAN.12,1966	UTM	11	6753268.54	651567.80	661.60	178	90	D	L	X15		017298M
1023	PYRAMID	31 RH45		JAN.14,1966	UTM	11	6752996.81	651057.01	664.80	223	90	D	L	X15		017298M
1024	PYRAMID	32 AD62		JAN.16,1966	UTM	11	6753277.99	651572.07	660.70	202	90	D	L	X15		017298M
1025	PYRAMID	34 AD62		JAN.16,1966	UTM	11	6753108.33	651494.41	665.1	195	90	D	L	X15		017298M
1026	PYRAMID	35 RH45		JAN.18,1966	UTM	11	6753059.29	651001.08	665.1	357	90	D	L	X15		017298M
1027	PYRAMID	36 AD62		JAN.18,1966	UTM	11	6753150.37	651498.03	660.00	202	90	D	L	X15		017298M
1028	PYRAMID	37 AD62		JAN.19,1966	UTM	11	6753242.29	651559.82	659.00	208	90	D	L	X15		017298M
1029	PYRAMID	38 RH47		JAN.20,1966	UTM	11	6753157.67	651435.45	662.40	272	90	D	L	X15		017298M
1030	PYRAMID	39 RH45		JAN.21,1966	UTM	11	6752993.72	650998.57	665.80	172	90	D	L	X15		017298M
1031	PYRAMID	40 AD62		JAN.22,1966	UTM	11	6753086.37	651554.17	659.00	227	90	D	L	X15		017298M
1032	PYRAMID	44 RH48		JAN.26,1966	UTM	11	6753270.89	651422.74	660.2	205	90	D	L	X15		017298M
1033	PYRAMID	49 RH47		FEB.1966	UTM	11	6753242.29	651200.05	665.6	193	90	D	L	X15		017298M
1034	PYRAMID	153 RH45		APR.1966	UTM	11	6752939.24	650999.30	664.3	193	90	D	L	X15		017298M
1035	PYRAMID	156 RH46		APR.1966	UTM	11	6753051.25	651098.23	665.1	195	90	D	L	X15		017369M
1036	PYRAMID	164 RH46		APR.1966	UTM	11	6752996.55	651083.39	664.2	167	90	D	L	X15		017369M
1037	PYRAMID	175 RH45		APR.1966	UTM	11	6752939.85	651015.84	665.1	178	90	D	L	X15		017369M
1038	PYRAMID	179 RH45		APR.1966	UTM	11	6752938.98	650963.34	665.0	200	90	D	L	X15		017369M
1039	PYRAMID	183 RH45		APR.1966	UTM	11	6752973.38	650993.37	664.0	308	90	D	L	X15		017369M
1040	PYRAMID	187 RH45		APR.1966	UTM	11	6752992.97	650933.66	663.6	308	90	D	L	X15		017369M
1041	PYRAMID	200 RH30		NOV.26,1965	UTM	11	6752136.15	650137.69	669.70	161	90	D	L	W17		017298M
1042	PYRAMID	200A RH30		JAN.15,1966	UTM	11	6752136.15	650137.69	670.4	212	90	D	L	W17		017298M
1043	PYRAMID	201 RH30		JAN.15,1966	UTM	11	6752136.15	650137.69	670.4	212	90	D	L	W17		017298M
1044	PYRAMID	202 RH30		JAN.22,1966	UTM	11	6752136.15	650137.69	669.5	173	90	D	L	W17		017298M
1045	PYRAMID	202A RH30		APR.1966	UTM	11	6752128.21	650206.30	670.6	1238	90	D	L	W17		017303
1046	PYRAMID	203 RH30		JAN.1966	UTM	11	6752127.05	650263.35	668.6	164	90	D	L	W17		017298M
1047	PYRAMID	204 RH30		JAN.1966	UTM	11	6752076.22	650137.69	669.9	152	90	D	L	W17		017298M
1048	PYRAMID	205 RH30		FEB.1966	UTM	11	6752136.15	650137.69	669.4	261	90	D	L	W17		017298M
1049	PYRAMID	206 RH30		FEB.1966	UTM	11	6752136.15	650206.30	669.4	246	90	D	L	W17		017298M
1050	PYRAMID	207 RH30		FEB.03,1966	UTM	11	6752069.00	650195.43	669.4	230	90	D	L	W17		017298M

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BY K.U.WEYER AND W.C.HORWOOD-BROWN (NHRI, ENVIRONMENT CANADA, MARCH, 1983)

NUMBER	COMPANY	HOLE	CLAIM	DATE	SYS Z	NORTH	EAST	ELEV	LENGTH	DIP	T	RECV	LS	OREBDY	NDIAND
1051	PYRAMID	214	RH30	FEB. 1966	UTM 11	6752258.72	650141.07	669.8	191	90	D	67.6	LS	W17	017298M
1052	PYRAMID	300	CVY3	APR. 25, 1966	UTM 11	6750541.12	647608.18	697.0	290	90	D	84.2	LS	AN-3	
1053	PYRAMID	301	CVY3	APR. 29, 1966	UTM 11	6750481.30	647633.69	695.6	306	90	D		LS		061865M
1054	RICH POINT	R-1	MACBETH	APR. 29, 1970	UTM 11	6736374.38	620833.93	790	306	90	D		LS		061865M
1055	RICH POINT	R-2	M5	MAY 01, 1970	UTM 11	6736309.97	620760.33	790	301	90	D		LS		
1056	RICH POINT	R-3	M5	MAY 05, 1970	UTM 11	6736464.61	620755.11	790	493	90	D		LS		061865M
1057	RODSTROM-YELLO.	1	LVT	JAN. 20, 1966	UTM 11	6721650.00	603000.00	800	706	90	D	95.4	LS		060255M
1058	RODSTROM-YELLO.	2	LVT	FEB. 03, 1966	UTM 11	6721940.00	603200.00	800	530	90	D	94.3	LS		060255M
1059	RODSTROM-YELLO.	3			UTM 11	6729300.00	594630.00	720	315	90	D		S		060256M
1060	RODSTROM-YELLO.	4			UTM 11	6729300.00	594630.00	720	652	90	D		S		060256M
1061	RODSTROM-YELLO.	5			UTM 11	6715450.00	602650.00	951	755	90	D		S		060256M
1062	RODSTROM-YELLO.	6			UTM 11	6715700.00	606100.00	875	246	90	D		S		060256M
1063	RODSTROM-YELLO.	7			UTM 11	6722450.00	605870.00	875	648	90	D		S		060256M
1064	ROLLING HILLS	1	E20	FEB. 1967	UTM 11	6722450.00	605870.00	875	625	90	D		S		017294M
1065	SAN DOH MINES	A-1	BAKER20	AUG. 21, 1966	UTM 11	6762518.40	664898.12	410	410	55	D	80	LS		017233M
1066	SAN DOH MINES	A-2	PP26	SEPT. 04, 1966	UTM 11	6762615.81	667634.95	416	416	35	D	70	L		017233M
1067	SAN DOH MINES	A-3	PP23	SEPT. 16, 1966	UTM 11	6762644.60	667588.40	456	456	90	D	75	L		017233M
1068	SAN DOH MINES	S-1	BAKER13	MAR. 1966	UTM 11	6762436.85	665142.91	250	250	90	D	75	L		017233M
1069	SAN DOH MINES	S-2	BAKER18	MAR. 1966	UTM 11	6761740.57	664828.85	195	195	90	D	20	A		017233M
1070	SAN DOH MINES	S-3	BAKER25	MAR. 1966	UTM 11	6762452.26	664148.06	45	45	90	D		A		017233M
1071	SAN DOH MINES	S-4	BAKER25	APR. 1966	UTM 11	6762514.44	664145.20	328	328	90	D	70	LS		017233M
1072	SAN DOH MINES	S-5	BIL48	APR. 1966	UTM 11	6762636.72	664109.41	486	486	90	D	65	LS		017233M
1073	SCOTIA MINES	1	GA75	JAN. 16, 1967	UTM 11	6751171.22	608216.01	491	491	90	D		LS		018011M
1074	SILVER SUMMIT	1	GA75	JUN. 21, 1966	UTM 11	6736833.75	643342.35	491	491	90	D		LS		
1075	SILVER SUMMIT	2	GA98	JUL. 02, 1966	UTM 11	6736514.26	643870.69	500.5	500.5	90	D		LS		
1076	SILVER SUMMIT	3	GA98	JUL. 07, 1966	UTM 11	6736362.69	643952.61	596	596	90	D		S		
1077	SLAVE EXPLORAT.	1		1967	UTM 11	6740000.00	596300.00	700	700	90	D		S		
1078	SLAVE EXPLORAT.	2		1967	UTM 11	6740000.00	596300.00	646	646	90	D		S		
1079	SLAVE EXPLORAT.	3		1967	UTM 11	6739500.00	596250.00	616	616	90	D		S		
1080	SLAVE EXPLORAT.	4		1967	UTM 11	6740050.00	598150.00	579.5	579.5	90	D		S		
1081	SLAVE EXPLORAT.	5		1967	UTM 11	6740600.00	597300.00	533.5	533.5	90	D		S		
1082	STANLEY, GRIMBLE	SGR1		JUN. 1958	UTM 11	6746000.00	568000.00	370	370	90	R		L		017229
1083	STANLEY, GRIMBLE	SGR2		JUN. 1958	UTM 11	6747000.00	568900.00	340	340	90	R		L		017229
1084	STANLEY, GRIMBLE	SGR3		JUN. 1958	UTM 11	6745500.00	567150.00	525.5	525.5	90	R		L		018828M
1085	STANLEY, GRIMBLE	SGR4		JUN. 1958	UTM 11	6747400.00	566380.00	200	200	90	R		L		
1086	STANLEY, GRIMBLE	SGR5		JUN. 1958	UTM 11	6746550.00	567300.00	540.5	540.5	90	R		L		
1087	STANLEY, GRIMBLE	SGR6		JUN. 1958	UTM 11	6748200.00	567350.00	830	830	90	R	40	L		017229
1088	TERREX (FOSTER)	1	TRXL2	FEB. 23, 1968	UTM 11	6713830.00	642000.00	845	384	90	D	30	L		017229
1089	TERREX (FOSTER)	2	TRXL2		UTM 11	6714600.00	642050.00	215	215	90	D		L		018828M
1090	TERRITORY MIN.	1	HRG72		UTM 11	6760917.74	660703.25	154	154	90	D		L		018828M
1091	TERRITORY MIN.	2	HRG72	NOV. 29, 1968	UTM 11	6761047.05	660687.98	300	300	90	D		L		018828M
1092	TERRITORY MIN.	3	HRG72		UTM 11	6761339.75	660656.99	200	200	90	D		L		018828M
1093	TERRITORY MIN.	4	HRG71	MAR. 14, 1968	UTM 11	6761469.06	660641.72	725	725	90	D		L		018828M
1094	TERRITORY MIN.	5	HRG71	MAR. 14, 1968	UTM 11	6761468.19	660673.37	154	154	90	D		L		018828M
1095	TERRITORY MIN.	6	HRG72	MAR. 14, 1968	UTM 11	6761264.61	660644.31	151	151	90	D		L		018828M
1096	TERRITORY MIN.	7	HRG72	MAR. 14, 1968	UTM 11	6761223.98	660665.28	856.34	856.34	90	D		L		018828M
1097	THURBER	79-1		MAR. 15, 1970	UTM 11	6713700.00	567220.00	39.5	39.5	90	R		L		
1098	THURBER	79-2		MAR. 17, 1970	UTM 11	6723563.18	555507.94	302	302	90	R		L		
1099	THURBER	79-3		MAR. 18, 1970	UTM 11	6734036.50	565027.31	98.5	98.5	90	R		L		
1100	THURBER	79-4		MAR. 19, 1970	UTM 11	6734040.44	562234.50			90	R		L		

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BY K.U.WEYER AND W.C.HORWOOD-BROWN (NHRI, ENVIRONMENT CANADA, MARCH, 1983)

NUMBER	COMPANY	HOLE	CLAIM	DATE	SYS	Z	NORTH	EAST	ELEV	LENGTH	DIP	T	RECV	LS	OREBDY	NDIAND
1101	THURBER	79-5		MAR. 19, 1979	UTM	11	6734919.90	562996.55		40	90	R		LS		
1102	TOBE MINES	N1-1	VIN71	NOV. 1, 1966	UTM	11	6724318.10	619552.98		555	90	R		LS		
1103	TOBE MINES	N1-2	VIN71	NOV. 1, 1966	UTM	11	6724100.60	619529.81		520	90	R		LS		
1104	TOBE MINES	N2-1	TAL190	NOV. 1, 1966	UTM	11	6726106.94	622107.66		460	90	R		LS		
1105	WESTERN MINES		AX1139	NOV. 04, 1975	UTM	11	6735523.82	606302.41	680.15	1055	90	D		LS		080001M
1106	WESTERN MINES		AX1100	NOV. 10, 1975	UTM	11	6733558.32	605229.80	679.36	1002	90	D		LS		080001M
1107	WESTERN MINES		AX11020	NOV. 14, 1975	UTM	11	6734366.35	604244.71	670.26	852	90	D		LS		080001M
1108	WESTERN MINES		AX979	NOV. 23, 1975	UTM	11	6735136.11	604289.80	664.27	983	90	D		LS		080001M
1109	WESTERN MINES		5 AX903	NOV. 28, 1975	UTM	11	6735871.93	603864.09	657.77	578	90	D		LS		080001M
1110	WESTERN MINES		6 AX757	DEC. 01, 1975	UTM	11	6733927.08	601185.76	682.12	652	90	D		LS		080001M
1111	WESTERN MINES		7 AX500	DEC. 05, 1975	UTM	11	6733484.51	598006.76	658.17	671	90	D		LS		080001M
1112	WESTERN MINES		8 AX504	DEC. 09, 1975	UTM	11	6731719.99	598006.76	685.73	660	90	D		LS		080001M
1113	WESTERN MINES		9 AX434	JAN. 10, 1976	UTM	11	6731086.31	598027.72	696.56	619	90	D		LS		080001M
1114	WESTERN MINES		10 AX611		UTM	11	6733562.71	599284.72	659.81	589	90	D		LS		080001M
1115	WESTERN MINES		11 AX1134		UTM	11	6735135.21	606041.13	676.35	609	90	D		LS		080001M
1116	WESTERN MINES		12 AX499	JAN. 18, 1976	UTM	11	6734164.56	598018.56	653.58	597	90	D		LS		080001M
1117	WESTERN MINES		13 AX1133	JAN. 18, 1976	UTM	11	6735408.85	605911.96	674.02	548	90	D		LS		080001M
1118	WESTERN MINES		14 AX947	JAN. 22, 1976	UTM	11	6732998.62	603662.35	733.57	596	90	D		LS		080001M
1119	WESTERN MINES		15 AX1173	JAN. 22, 1976	UTM	11	6734879.50	606156.15	677.59	354	90	D		LS		080001M
1120	WESTERN MINES		16 AX391	JAN. 24, 1976	UTM	11	6733996.04	596859.31	669.32	609	90	D		LS		080001M
1121	WESTERN MINES		17 AX1097	JAN. 25, 1976	UTM	11	6734760.77	605394.25	674.02	548	90	D		LS		080001M
1122	WESTERN MINES		18 AX211	JAN. 28, 1976	UTM	11	6733876.99	595485.91	667.77	607	90	D		LS		080001M
1123	WESTERN MINES		19 AX1133	JAN. 30, 1976	UTM	11	6735678.78	602776.14	673.95	527	90	D		LS		080001M
1124	WESTERN MINES		20 AX47	JAN. 30, 1976	UTM	11	6733930.82	592401.71	639.16	511	90	D		LS		080001M
1125	WESTERN MINES		21 AX1133		UTM	11	6735539.83	605856.60	674.18	545	90	D		LS		080001M
1126	WESTERN MINES		22 AX49	FEB. 06, 1976	UTM	11	6733059.75	592473.04	659.48	689	90	D		LS		080001M
1127	WESTERN MINES		23 AX1094	FEB. 06, 1976	UTM	11	6735957.93	605649.61	680.77	540	90	D		LS		080001M
1128	WESTERN MINES		24 AX51	FEB. 06, 1976	UTM	11	6732249.60	592536.51	679.17	612	90	D		LS		080001M
1129	WESTERN MINES		25 AX1201	FEB. 03, 1976	UTM	11	6735777.50	606560.68	686.02	575	90	D		LS		080001M
1130	WESTERN MINES		26 AX91	FEB. 09, 1976	UTM	11	6728358.86	593150.69	715.26	657	90	D		LS		080001M
1131	WESTERN MINES		27 AX1202		UTM	11	6735503.24	606694.67	686.52	544	90	D		LS		080001M
1132	WESTERN MINES		28 AX72		UTM	11	6736554.34	592513.26	587.30	672	90	D		LS		080001M
1133	WESTERN MINES		29 AX1093	FEB. 08, 1976	UTM	11	6736530.90	605524.54	665.52	525	90	D		LS		080001M
1134	WESTERN MINES		30 AX1254	FEB. 17, 1976	UTM	11	6735312.90	607584.45	691.90	491	90	D		LS		080001M
1135	WESTERN MINES		31 AX1170	FEB. 17, 1976	UTM	11	6736044.26	606427.16	691.18	572	90	D		LS		080001M
1136	WESTERN MINES		32 AX1254	FEB. 19, 1976	UTM	11	6735595.29	607463.40	690.85	587	90	D		LS		080001M
1137	WESTERN MINES		33 AX1169	FEB. 14, 1976	UTM	11	6736313.68	606285.98	691.80	545	90	D		LS		080001M
1138	WESTERN MINES		34 AX980	FEB. 21, 1976	UTM	11	6734867.35	604442.59	668.04	617	90	D		LS		080001M
1139	WESTERN MINES		35 AX1234	FEB. 17, 1976	UTM	11	6735253.33	606841.82	682.87	572	90	D		LS		080001M
1140	WESTERN MINES		36 AX979	FEB. 23, 1976	UTM	11	6735380.33	604137.38	663.09	527	90	D		LS		080001M
1141	WESTERN MINES		37 AX1232	FEB. 21, 1976	UTM	11	6735865.06	607348.31	699.08	676	90	D		LS		080001M
1142	WESTERN MINES		38 AX747	FEB. 25, 1976	UTM	11	6737989.56	601386.39	649.31	551	90	D		LS		080001M
1143	WESTERN MINES		39 AX1232	FEB. 24, 1976	UTM	11	6736144.23	607235.04	695.01	593	90	D		LS		080001M
1144	WESTERN MINES		40 AX1057	MAR. 03, 1976	UTM	11	6735029.27	605258.27	671.92	560	90	D		LS		080001M
1145	WESTERN MINES		41 AX1231	FEB. 27, 1976	UTM	11	6736425.27	607117.63	704.96	515	90	D		LS		080001M
1146	WESTERN MINES		42 AX1057	MAR. 06, 1976	UTM	11	6735307.71	605131.54	679.67	549	90	D		LS		080001M
1147	WESTERN MINES		43 AX1267	MAR. 01, 1976	UTM	11	6736004.01	608108.21	683.66	535	90	D		LS		080001M
1148	WESTERN MINES		44 AX1056	MAR. 09, 1976	UTM	11	6735573.69	604998.68	662.63	579	90	D		LS		080001M
1149	WESTERN MINES		45 AX1266	MAR. 03, 1976	UTM	11	6736296.59	607996.62	694.03	565	90	D		LS		080001M
1150	WESTERN MINES		46 AX1056	MAR. 13, 1976	UTM	11	6735848.95	604866.00	657.64	557	90	D		LS		080001M

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NUMBER	COMPANY	HOLE	CLAIM	DATE	SYS	Z	NORTH	EAST	ELEV	LENGTH	DIP	T	RECV	LS	OREBDY	NDIAND
1151	WESTERN MINES	47 AX1252		MAR. 06, 1976	-	UTM	11	6736570.34	607884.71	692.29	562	D		LS	Z47	080001M
1152	WESTERN MINES	48 AX943		MAR. 17, 1976	-	UTM	11	6734604.25	603738.65	666.44	557	D		LS		080001M
1153	WESTERN MINES	49 AX1230		MAR. 09, 1976	-	UTM	11	6736845.27	607769.41	694.72	531	D		LS		080001M
1154	WESTERN MINES	50 AX943		MAR. 17, 1976	-	UTM	11	6734870.26	603621.57	666.99	577	D		LS		080001M
1155	WESTERN MINES	51 AX1295		MAR. 12, 1976	-	UTM	11	6736020.59	608938.08	680.94	566	D		LS		080001M
1156	WESTERN MINES	52 AX905		MAR. 20, 1976	-	UTM	11	6735019.20	603555.67	664.66	557	D		LS		080001M
1157	WESTERN MINES	53 AX1280		MAR. 19, 1976	-	UTM	11	6736303.22	608804.94	681.50	568	D		LS		080001M
1158	WESTERN MINES	54 AX831		MAR. 22, 1976	-	UTM	11	6734589.02	602863.47	681.89	570	D		LS		080001M
1159	WESTERN MINES	55 AX1280		MAR. 17, 1976	-	UTM	11	6736574.24	608690.73	682.12	548	D		LS	Z1-55	080001M
1160	WESTERN MINES	56 AX904		MAR. 31, 1976	-	UTM	11	67355427.66	603565.99	661.55	557	D		LS		080001M
1161	WESTERN MINES	57 AX1279		MAR. 19, 1976	-	UTM	11	6736851.07	608570.32	682.05	534	D		LS		080001M
1162	WESTERN MINES	58 AX904		APR. 01, 1976	-	UTM	11	6737122.69	603249.08	658.92	523	D		LS		080001M
1163	WESTERN MINES	59 AX1278			-	UTM	11	6737572.36	608451.58	684.29	517	D		LS	X25	080001M
1164	WESTERN MINES	61 AX1201			-	UTM	11	6735832.80	606537.07	688.03	525	D		LS	X25?	080001M
1165	WESTERN MINES	63 AX1201		MAR. 27, 1976	-	UTM	11	6735832.80	606537.07	688.03	525	D		LS		080001M
1166	WESTERN MINES	67 AX1202		APR. 01, 1976	-	UTM	11	6735667.82	606616.24	685.40	525	D		LS	X25	080001M
1167	WESTERN MINES	68 AX1095		MAR. 15, 1976	-	UTM	11	6735807.12	605754.18	674.05	530	D		LS	X25	080001M
1168	WESTERN MINES	69 AX1201		APR. 04, 1976	-	UTM	11	6735807.12	605754.18	687.37	560	D		LS	X25	080001M
1169	WESTERN MINES	70 AX1095		MAR. 18, 1976	-	UTM	11	6735788.56	605728.91	674.05	574	D		LS	X25	080001M
1170	WESTERN MINES	72 AX1133		MAR. 25, 1976	-	UTM	11	6735626.09	605806.54	674.77	525	D		LS	X25	080001M
1171	WESTERN MINES	74 AX1133		MAR. 27, 1976	-	UTM	11	6735704.87	605830.51	674.41	526	D		LS	X25	080291
1172	WESTERN MINES	76 AX1095		MAR. 30, 1976	-	UTM	11	6735748.72	603710.61	673.46	553	D		LS	X25	080291
1173	WESTERN MINES	78 AX1133		APR. 01, 1976	-	UTM	11	6735758.64	605809.25	674.02	580	D		LS	X25	080291
1174	WESTERN MINES	80 AX1095		APR. 04, 1976	-	UTM	11	6735634.99	605668.46	672.77	547	D		LS	X25	080291
1175	WESTERN MINES				-	UTM	11					D		LS	X25	080291
1176	WESTERN MINES	114 AX1134		AUG. 11, 1976	-	UTM	11	6735351.25	605931.93	674.02	575	D		LS		080696M
1177	WESTERN MINES	116 WD74		OCT. 04, 1976	-	UTM	11	6735209.64	589757.79	626.70	751	D		LS		080696M
1178	WESTERN MINES	117 WD315		SEPT. 30, 1976	-	UTM	11	6734639.17	584750.80	631.69	800	D		LS		080696M
1179	WESTERN MINES	118 WD558		SEPT. 25, 1976	-	UTM	11	6733777.89	580042.48	658.86	925	D		LS		080696M
1180	WESTERN MINES	119 WD782		SEPT. 21, 1976	-	UTM	11	67334189.89	574245.82	629.56	825	D		LS		080696M
1181	WESTERN MINES	120 WD913		SEPT. 17, 1976	-	UTM	11	6734600.25	570773.09	608.20	855	D		LS		080696M
1182	WESTERN MINES	121 AX1232		NOV. 04, 1976	-	UTM	11	6736177.40	607169.15	696.25	590	D		LS		080696M
1183	WESTERN MINES	122 AX1232		NOV. 08, 1976	-	UTM	11	6736237.43	607158.03	698.00	573	D		LS		080696M
1184	WESTERN MINES	124 AX1232		NOV. 15, 1976	-	UTM	11	6736246.97	607233.72	695.44	573	D		LS		080696M
1185	WESTERN MINES	126 AX1231		NOV. 20, 1976	-	UTM	11	6736299.48	607206.50	696.26	585	D		LS		080696M
1186	WESTERN MINES	129 AX1179		NOV. 18, 1976	-	UTM	11	6732017.26	606067.34	719.92	509	D		LS		080696M
1187	WESTERN MINES	130 AX1179		NOV. 20, 1976	-	UTM	11	6731961.50	606067.34	720.02	505	D		LS		080696M
1188	WESTERN MINES	132 AX1133		DEC. 01, 1976	-	UTM	11	6735475.31	605876.16	674.58	545	D		LS		080696M
1189	WESTERN MINES	133 AX1134		NOV. 28, 1976	-	UTM	11	6735255.84	605983.04	674.28	610	D		LS		080696M
1190	WESTERN MINES	134 AX1133			-	UTM	11	6735517.77	605858.58	675.07	515	D		LS		080696M
1191	WESTERN MINES	136 AX1171		DEC. 05, 1976	-	UTM	11	6735487.18	605936.65	675.03	510	D		LS		080696M
1192	WESTERN MINES	137 AX1134			-	UTM	11	6735083.17	602706.76	676.84	543	D		LS		080696M
1193	WESTERN MINES	138 AX869		JAN. 14, 1977	-	UTM	11	6734861.81	602705.71	682.23	609	D		LS		080696M
1194	WESTERN MINES	139 AX868		JAN. 16, 1977	-	UTM	11	6735115.05	602569.06	688.03	603	D		LS		080696M
1195	WESTERN MINES	140 AX830		JAN. 18, 1977	-	UTM	11	6735371.04	602428.08	682.19	565	D		LS		080696M
1196	WESTERN MINES	141 AX829		JAN. 21, 1977	-	UTM	11	6735643.15	602276.33	684.78	605	D		LS		080696M
1197	WESTERN MINES	142 AX794		FEB. 14, 1977	-	UTM	11	6735285.07	602162.44	678.14	612	D		LS		080696M
1198	WESTERN MINES	144 AX793		JAN. 26, 1977	-	UTM	11	6734837.03	601892.27	664.49	220	D		LS		080696M
1199	WESTERN MINES	145 AX792		FEB. 05, 1977	-	UTM	11	6735104.44	601760.20	659.65	555	D		LS		080696M
1200	WESTERN MINES	146 AX791		FEB. 09, 1977	-	UTM	11	6735376.89	601620.78	681.59	536	D		LS		080696M

DATA COLLECTION BORBNK: TECHNICAL DATA FOR MINERAL EXPLORATION BOREHOLES AND OIL WELLS IN THE PINE POINT AREA
 BY K.U.WEYER AND W.C.HORWOOD-BROWN (NHRI-ENVIRONMENT CANADA, MARCH,1983)

NUMBER	COMPANY	HOLE	CLAIM	DATE	SYS Z	NORTH	EAST	ELEV	LENGTH	DIP	T	RECV	LS	OREBDDY	NDIAND
1201	WESTERN MINES	147 AX791		FEB.12,1977	UTM 11	6735666.48	601489.18	695.51	542	90	D		LS		080696M
1202	WESTERN MINES	148 AX866		FEB.18,1977	UTM 11	6735598.89	603125.62	655.74	555	90	D		LS		080696M
1203	WESTERN MINES	149 AX941		FEB.20,1977	UTM 11	6735664.97	603970.60	659.81	456	90	D		LS		080696M
1204	WESTERN MINES	150 AX1019		FEB.23,1977	UTM 11	6734613.10	604603.90	669.36	566	90	D		LS		080696M
1205	WESTERN MINES	151 AX1060		FEB.25,1977	UTM 11	6734030.36	604912.22	674.87	564	90	D		LS		080696M
1206	WESTERN MINES	152 AX1098		MAR.01,1977	UTM 11	6734481.76	605518.89	674.48	563	90	D		LS		080696M
1207	WESTERN MINES	153 AX1016		MAR.08,1977	UTM 11	6736130.32	604739.84	658.53	506	90	D		LS		080696M
1208	WESTERN MINES	154 AX982		MAR.10,1977	UTM 11	6734338.94	603875.42	669.42	566	90	D		LS		080696M
1209	WESTERN MINES	155 AX793		FEB.27,1977	UTM 11	6734803.60	601908.28	664.44	593	90	D		A		080696M
1210	WESTERN MINES	156 AX793		FEB.28,1977	UTM 11	6734722.39	601948.33	669.09	595	90	D		LS		080696M
1211	WESTERN MINES	157 AX983		MAR.12,1977	UTM 11	6734058.84	604021.95	676.05	557	90	D		LS		080696M
1212	WESTERN MINES	158 AX932		MAR.15,1977	UTM 11	6734349.82	603005.11	701.51	570	90	D		LS		080696M
1213	WESTERN MINES	159 AX945		MAR.18,1977	UTM 11	6734040.19	603160.81	727.00	617	90	D		LS		080696M
1214	WESTERN MINES	160 AX1234		FEB.27,1977	UTM 11	6735218.55	606783.06	683.04	572	90	D		LS		080696M
1215	WESTERN MINES	166 AX1233		MAR.08,1977	UTM 11	6735596.45	606802.50	682.91	560	90	D		LS		080696M
1216	WESTERN MINES	167 AX1235		MAR.09,1977	UTM 11	6736971.01	606965.71	682.81	575	90	D		LS		080696M
1217	WESTERN MINES	172 AX1173		MAR.13,1977	UTM 11	6735376.00	603832.09	673.65	555	90	D		LS		080696M
1218	WESTERN MINES	173 AX1234		MAR.22,1977	UTM 11	6735571.70	606855.28	683.60	573	90	D		LS		080696M
1219	WESTERN MINES	176 AX1233		MAR.24,1977	UTM 11	6735211.37	606888.54	682.71	565	90	D		LS		080696M
1220	WESTERN MINES	178 AX1172		MAR.29,1977	UTM 11	67355361.16	606223.18	677.53	642	90	D		LS		080696M
1221	WESTERN MINES	186 AX1205		MAR.30,1977	UTM 11	6734543.39	606239.44	685.93	542	90	D		LS		080696M
1222	WESTERN MINES	192 AX1270		APR.04,1977	UTM 11	6736570.39	608628.76	684.94	558	90	D		LS		080696M
1223	WESTERN MINES	195 AX1270		APR.03,1977	UTM 11	6736711.25	608223.36	678.84	535	90	D		LS		080696M
1224	WESTERN MINES	197 AX1265		APR.10,1977	UTM 11	6735543.42	606233.98	678.84	535	90	D		LS		080696M
1225	WESTERN MINES	205 AX1172		NOV.25,1977	UTM 11	6735590.36	606373.13	680.15	605	90	D		LS		080696M
1226	WESTERN MINES	206 AX1172		NOV.29,1977	UTM 11	6735590.36	606373.13	678.84	645	90	D		LS		080696M
1227	WESTERN MINES	207 AX1172		DEC.01,1977	UTM 11	6735590.36	606373.13	678.84	645	90	D		LS		080696M
1228	WESTERN MINES	208 AX1171		DEC.06,1977	UTM 11	6735590.36	606373.13	678.84	645	90	D		LS		080696M
1229	WESTERN MINES	209 AX1171		JAN.09,1978	UTM 11	6735590.36	606373.13	678.84	645	90	D		LS		080696M
1230	WESTERN MINES	210 AX1171		NOV.26,1977	UTM 11	6735590.36	606373.13	678.84	645	90	D		LS		080696M
1231	WESTERN MINES	211 AX1171		NOV.28,1977	UTM 11	6735590.36	606373.13	678.84	645	90	D		LS		080696M
1232	WESTERN MINES	214 AX1252		DEC.06,1977	UTM 11	6736377.19	607672.70	692.06	545	90	D		LS		080696M
1233	WESTERN MINES	215 AX1252		DEC.10,1977	UTM 11	6736377.19	607672.70	692.06	545	90	D		LS		080696M
1234	WESTERN MINES	216 AX1252		DEC.12,1977	UTM 11	6736377.19	607672.70	692.06	545	90	D		LS		080696M
1235	WESTERN MINES	220 AX1280		DEC.03,1977	UTM 11	6736377.19	607672.70	692.06	545	90	D		LS		080696M
1236	WESTERN MINES	221 AX1280		DEC.08,1977	UTM 11	6736377.19	607672.70	692.06	545	90	D		LS		080696M
1237	WESTERN MINES	230 AX756		JAN.09,1978	UTM 11	6736377.19	607672.70	692.06	545	90	D		LS		080696M
1238	WESTERN MINES	232 AX717		FEB.05,1978	UTM 11	6736377.19	607672.70	692.06	545	90	D		LS		080696M
1239	WESTERN MINES	233 AX717		FEB.08,1978	UTM 11	6736377.19	607672.70	692.06	545	90	D		LS		080696M
1240	WESTERN MINES	234 AX716		FEB.14,1978	UTM 11	6736377.19	607672.70	692.06	545	90	D		LS		080696M
1241	WESTERN MINES	237 AX1016		JAN.21,1978	UTM 11	6736377.19	607672.70	692.06	545	90	D		LS		080696M
1242	WESTERN MINES	240 AX1094		JAN.16,1978	UTM 11	6736377.19	607672.70	692.06	545	90	D		LS		080696M
1243	WESTERN MINES	241 AX1134		JAN.19,1978	UTM 11	6736377.19	607672.70	692.06	545	90	D		LS		080696M
1244	WESTERN MINES	242 AX1134		JAN.21,1978	UTM 11	6736377.19	607672.70	692.06	545	90	D		LS		080696M
1245	WESTERN MINES	243 AX792		JAN.23,1978	UTM 11	6736377.19	607672.70	692.06	545	90	D		LS		080696M
1246	WESTERN MINES	244 AX792		JAN.26,1978	UTM 11	6736377.19	607672.70	692.06	545	90	D		LS		080696M
1247	WESTERN MINES	245 AX831		JAN.28,1978	UTM 11	6736377.19	607672.70	692.06	545	90	D		LS		080696M
1248	WESTERN MINES	246 AX831		JAN.30,1978	UTM 11	6736377.19	607672.70	692.06	545	90	D		LS		080696M
1249	WESTERN MINES	247 AX833		JAN.31,1978	UTM 11	6736377.19	607672.70	692.06	545	90	D		LS		080696M
1250	WESTERN MINES	248 AX833		FEB.03,1978	UTM 11	6736377.19	607672.70	692.06	545	90	D		LS		080696M

DATA COLLECTION BORBNK: TECHNICAL DATA FOR MINERAL EXPLORATION BOREHOLES AND OIL WELLS IN THE PINE POINT AREA
BY K.U.WEYER AND W.C.HORWOOD-BROWN (NHRI-ENVIRONMENT CANADA, MARCH, 1983)

NUMBER	COMPANY	HOLE	CLAIM	DATE	SYS	Z	NORTH	EAST	ELEV	LENGTH	DIP	T	RECV	LS	OREBDY	NDIAND
1251	WESTERN MINES	249	AX1203	FEB. 16, 1978	-	UTM	11	6735346.12	606405.43	682.12	575	90	D	LS	X25	080841M
1252	WESTERN MINES	250	AX1294	JAN. 26, 1978	-	UTM	11	6736299.72	609012.27	679.00	567	90	D	LS		080841M
1253	WESTERN MINES	251	AX1232	JAN. 28, 1978	-	UTM	11	673519.62	607321.36	698.69	645	90	D	LS		080841M
1254	WESTERN MINES	252	AX1265	FEB. 02, 1978	-	UTM	11	6735867.14	607220.35	699.28	595	90	D	LS		080841M
1255	WESTERN MINES	256	AX1235	FEB. 08, 1978	-	UTM	11	67356618.25	607299.66	689.31	525	90	D	LS	247	080841M
1256	WESTERN MINES	257	AX1265	FEB. 14, 1978	-	UTM	11	6735648.23	607911.47	692.09	530	90	D	LS		080841M
1257	WESTERN MINES	258	AX1252	FEB. 16, 1978	-	UTM	11	6735351.74	607721.47	691.63	203	90	D	LS		080841M
1258	WESTERN MINES	259	AX1252	FEB. 17, 1978	-	UTM	11	6735379.09	607642.55	690.19	533	90	D	LS		080841M
1259	WESTERN MINES	260	AX1016	JAN. 26, 1978	-	UTM	11	6735909.75	604784.50	658.17	466	90	D	LS		080841M
1260	WESTERN MINES	263	AX1016	JAN. 31, 1978	-	UTM	11	6735972.82	604636.05	657.94	451	90	D	LS		080841M
1261	WESTERN MINES	264	AX1016	FEB. 01, 1978	-	UTM	11	6736033.14	604608.39	657.64	465	90	D	LS	77-1	080841M
1262	WESTERN MINES	265	AX1016	FEB. 04, 1978	-	UTM	11	6736087.48	604781.23	657.45	495	90	D	LS		080841M
1263	WESTERN MINES	270	AX1016	FEB. 16, 1978	-	UTM	11	6735867.78	604756.23	658.23		90	D	LS	V46	080841M
1264	WESTERN MINES	271	AX1016	FEB. 16, 1978	-	UTM	11	6735920.85	604636.60	659.51	483	90	D	LS		080841M
1265	WESTERN MINES	272	AX1016	FEB. 17, 1978	-	UTM	11	6735346.34	603562.09	672.77	524	90	D	LS		080841M
1266	WESTERN MINES	273	AX1016	FEB. 19, 1978	-	UTM	11	6736074.15	604372.25	659.94	476	90	D	LS	V46	080841M
1267	WESTERN MINES	274	AX1016	FEB. 21, 1978	-	UTM	11	6736138.88	604672.95	658.43	496	90	D	LS	V46	080841M
1268	WESTERN MINES	275	AX1021	FEB. 22, 1978	-	UTM	11	6734369.25	603277.94	672.36	550	90	D	LS		080841M
1269	WESTERN MINES	276	AX1059	FEB. 26, 1978	-	UTM	11	6736684.13	604800.46	669.35	522	90	D	LS		080841M
1270	WESTERN MINES	277	AX1096	MAR. 31, 1978	-	UTM	11	6735346.34	603562.09	672.77	524	90	D	LS		080841M
1271	WESTERN MINES	278	AX1023	MAR. 03, 1978	-	UTM	11	6736051.99	604712.75	658.17	465	90	D	LS	V46	080841M
1272	WESTERN MINES	280	AX1023	FEB. 19, 1978	-	UTM	11	6735040.57	603582.67	672.36	550	90	D	LS		080841M
1273	WESTERN MINES	281	AX1252	FEB. 19, 1978	-	UTM	11	6736277.72	603561.77	691.86	525	90	D	LS		080841M
1274	WESTERN MINES	282	AX1132	FEB. 22, 1978	-	UTM	11	6735527.72	603277.94	672.36	550	90	D	LS		080841M
1275	WESTERN MINES	283	AX1132	FEB. 24, 1978	-	UTM	11	67355816.70	603927.57	673.85	588	90	D	LS	W19,	080841M
1276	WESTERN MINES	284	AX1280	FEB. 27, 1978	-	UTM	11	6736454.53	608803.83	680.84	555	90	D	LS	Z1-55	080841M
1277	WESTERN MINES	285	AX1294	MAR. 01, 1978	-	UTM	11	6736433.13	608884.55	679.95	555	90	D	LS		080841M
1278	WESTERN MINES	287	AX1294	MAR. 05, 1978	-	UTM	11	6737077.91	607674.01	697.34	523	90	D	LS		080841M
1279	WESTERN MINES	288	AX1253	MAR. 05, 1978	-	UTM	11	6736077.36	607421.46	691.26	600	90	D	LS		080841M
1280	WESTERN MINES	289	AX1255	MAR. 15, 1978	-	UTM	11	6735130.25	607293.00	688.35	585	90	D	LS		080841M
1281	WESTERN MINES	290	AX1016	MAR. 09, 1978	-	UTM	11	6735940.08	604767.27	658.17	480	90	D	LS	V46	080841M
1282	WESTERN MINES	291	AX1016	MAR. 13, 1978	-	UTM	11	6735974.69	604835.77	657.45	475	90	D	LS	V46	080841M
1283	WESTERN MINES	293	AX940	MAR. 18, 1978	-	UTM	11	6735786.69	603574.32	658.07	511	90	D	LS		080841M
1284	WESTERN MINES	294	AX980	MAR. 21, 1978	-	UTM	11	6734779.19	604076.49	667.72	535	90	D	LS		080841M
1285	WESTERN MINES	295	AX943	MAR. 27, 1978	-	UTM	11	6734741.12	603676.25	666.54	533	90	D	LS		080841M
1286	WESTERN MINES	296	AX944	MAR. 27, 1978	-	UTM	11	6734486.45	603818.35	667.55	525	90	D	LS		080841M
1287	WESTERN MINES	297	AX906	APR. 02, 1978	-	UTM	11	6734598.70	603292.39	673.43	585	90	D	LS		080841M
1288	WESTERN MINES	298	AX792	APR. 06, 1978	-	UTM	11	6735084.23	601697.35	658.66	413	90	D	LS		080841M
1289	WESTERN MINES	299	AX792	APR. 08, 1978	-	UTM	11	6735131.84	601810.98	660.43	525	90	D	LS		080841M
1290	WESTERN MINES	300	AX1235	MAR. 17, 1978	-	UTM	11	6734884.08	607011.32	685.11	545	90	D	LS		080841M
1291	WESTERN MINES	301	AX1132	MAR. 19, 1978	-	UTM	11	6735783.96	605868.93	674.87	530	90	D	LS	W19	080841M
1292	WESTERN MINES	302	AX1132	MAR. 22, 1978	-	UTM	11	6735799.28	605827.70	674.02	535	90	D	LS	W19	080841M
1293	WESTERN MINES	303	AX1132	MAR. 31, 1978	-	UTM	11	6735747.36	605852.07	674.90	568	90	D	LS	W19	080841M
1294	WESTERN MINES	304	AX903	APR. 03, 1978	-	UTM	11	6735130.91	603697.21	656.78	470	90	D	LS		080841M
1295	WESTERN MINES	305	AX718	NOV. 23, 1978	-	UTM	11	6734412.24	601232.85	661.78	585	90	D	LS		081032M
1296	WESTERN MINES	306	AX718	NOV. 27, 1978	-	UTM	11	6734522.84	601175.04	661.94	570	90	D	LS		081032M
1297	WESTERN MINES	307	AX718	NOV. 29, 1978	-	UTM	11	6734433.00	601130.53	660.60	300	90	D	LS		081032M
1298	WESTERN MINES	308	AX756	DEC. 01, 1978	-	UTM	11	6734494.37	601260.52	662.76	510	90	D	LS		081032M
1299	WESTERN MINES	310	AX1179	MAR. 29, 1978	-	UTM	11	6732113.97	606142.63	718.47	605	90	D	LS		080841M
1300	WESTERN MINES	311	AX1179	APR. 01, 1978	-	UTM	11	6732044.92	606140.72	719.00	565	90	D	LS		080841M

DATA COLLECTION BORBNK: TECHNICAL DATA FOR MINERAL EXPLORATION BOREHOLES AND OIL WELLS IN THE PINE POINT AREA

BY K.U.WEYER AND W.C.HORWOOD-BROWN (NHRI-ENVIRONMENT CANADA, MARCH,1983)

NUMBER	COMPANY	HOLE	CLAIM	DATE	SYS Z	NORTH	EAST	ELEV	LENGTH	DIP	T	RECV	LS	OREBDDY	NDIAND
1301	WESTERN MINES	312 AX831		APR.03.1978	UTM	11	6734587.79	602088.20	669.42	535	90	D	LS		080841M
1302	WESTERN MINES	313 AX831		APR.06.1978	UTM	11	6734587.79	601979.26	668.47	545	90	D	LS		080841M
1303	WESTERN MINES	316 AX871		NOV.24.1978	UTM	11	6733774.12	602421.57	691.01	605	90	D	LS		081032M
1304	WESTERN MINES	317 AX943		NOV.27.1978	UTM	11	6734604.91	603702.92	666.21	533	90	D	LS		081032M
1305	WESTERN MINES	318 AX943		NOV.29.1978	UTM	11	6734803.03	603646.73	666.21	538	90	D	LS		081032M
1306	WESTERN MINES	319 AX943		DEC.02.1978	UTM	11	6734766.09	603734.53	667.03	510	90	D	LS		081032M
1307	WESTERN MINES	320 AX943		DEC.04.1978	UTM	11	6734719.75	603616.27	666.01	512	90	D	LS		081032M
1308	WESTERN MINES	329 AX757		JAN.14.1979	UTM	11	6733933.20	601501.29	666.24	620	90	D	LS		081032M
1309	WESTERN MINES	330 AX916		DEC.07.1978	UTM	11	6733620.34	604363.52	679.66	615	90	D	LS		081032M
1310	WESTERN MINES	342 AX908		JAN.13.1979	UTM	11	67333783.79	603300.92	695.41	596	90	D	LS		081032M
1311	WESTERN MINES	351 AX758		JAN.19.1979	UTM	11	67333628.36	601665.35	664.66	645	90	D	LS		081032M
1312	WESTERN MINES	352 AX796		JAN.17.1979	UTM	11	6733378.74	601788.45	688.35	645	90	D	LS		081032M
1313	WESTERN MINES	353 AX796		JAN.22.1979	UTM	11	67331619.45	602299.01	711.66	565	90	D	LS		081032M
1314	WESTERN MINES	354 AX916		FEB.22.1979	UTM	11	67330344.92	603132.73	731.66	565	90	D	LS		081032M
1315	WESTERN MINES	356 AX979		FEB.24.1979	UTM	11	67335102.49	604238.87	664.24	525	90	D	LS		081032M
1316	WESTERN MINES	367 AX822		MAR.02.1979	UTM	11	6734243.85	600423.43	668.34	605	90	D	LS		081032M
1317	WESTERN MINES	368 AX904		MAR.05.1979	UTM	11	6734216.49	601800.99	670.74	605	90	D	LS		081032M
1318	WESTERN MINES	369 AX944		MAR.08.1979	UTM	11	6734409.82	601860.38	668.16	558	90	D	LS		081032M
1319	WESTERN MINES	372 AX832		FEB.11.1979	UTM	11	6734481.51	602003.78	669.46	558	90	D	LS		081032M
1320	WESTERN MINES	374 AX755		MAR.11.1979	UTM	11	6734773.26	601533.01	672.11	575	90	D	LS		081032M
1321	WESTERN MINES	376 AX831		MAR.18.1979	UTM	11	6734983.12	602211.81	670.70	515	90	D	LS		081032M
1322	WESTERN MINES	377 AX831		MAR.21.1979	UTM	11	6734716.49	602362.79	673.81	525	90	D	LS		081032M
1323	WESTERN MINES	379 AX708		MAR.26.1979	UTM	11	6735116.78	603018.03	667.81	535	90	D	LS		081032M
1324	WESTERN MINES	396 AX1018		MAR.23.1979	UTM	11	6733217.73	604848.65	664.14	546	90	D	LS		081032M
1325	WESTERN MINES	397 AX1018		MAR.25.1979	UTM	11	67335538.88	604706.30	660.99	546	90	D	LS		081032M
1326	WESTERN MINES	399 AX979		MAR.28.1979	UTM	11	6735115.78	604373.77	664.40	532	90	D	LS		081032M
1327	WESTERN MINES	400 AX979		MAR.30.1979	UTM	11	6735186.12	604256.94	664.27	546	90	D	LS		081032M
1328	WESTERN MINES	402 AX980		APR.03.1979	UTM	11	6734947.77	604009.53	667.81	546	90	D	LS		081032M
1329	WESTERN MINES	403 AX980		APR.05.1979	UTM	11	673460.16	604138.21	668.14	544	90	D	LS		081032M
1330	WESTERN MINES	404 AX871		APR.06.1979	UTM	11	6734030.98	602734.13	693.80	538	90	D	LS		081032M
1331	WESTERN MINES	411 AX871		APR.06.1979	UTM	11	6733916.70	602808.06	702.79	594	90	D	LS	R190	081032M
1332	WESTERN MINES	463 AX832		NOV.20.1979	UTM	11	6734220.71	602293.95	689.01	579	90	D	LS	R190	081248M
1333	WESTERN MINES	471 AX894		NOV.26.1979	UTM	11	6734386.80	602021.16	675.23	595	90	D	LS	R190	081248M
1334	WESTERN MINES	472 AX925		NOV.29.1979	UTM	11	6734332.11	602403.89	689.23	585	90	D	LS	R190	081248M
1335	WESTERN MINES	473 AX925		DEC.02.1979	UTM	11	6734016.29	602013.89	687.04	593	90	D	LS	R190	081248M
1336	WESTERN MINES	475 AX794		DEC.06.1979	UTM	11	6734124.12	601957.53	680.81	585	90	D	LS	R190	081248M
1337	WESTERN MINES	477 AX832		DEC.09.1979	UTM	11	6734438.74	602341.27	676.21	582	90	D	LS	R190	081248M
1338	WESTERN MINES	478 AX832		DEC.10.1979	UTM	11	6734386.50	602236.27	675.89	575	90	D	LS	R190	081248M
1339	WESTERN MINES	489 AX904		JAN.06.1980	UTM	11	6734332.11	601724.34	679.17	565	90	D	LS		081248M
1340	WESTERN MINES	491 AX907		JAN.10.1980	UTM	11	6734130.01	603503.81	679.17	565	90	D	LS		081248M
1341	WESTERN MINES	492 AX1057		JAN.11.1980	UTM	11	6735178.71	605199.10	669.98	555	90	D	LS		081248M
1342	WESTERN MINES	493 AX906		JAN.14.1980	UTM	11	6734704.94	603165.32	670.96	572	90	D	LS		081248M
1343	WESTERN MINES	494 AX906		JAN.16.1980	UTM	11	6734779.04	603191.38	669.98	568	90	D	LS		081248M
1344	WESTERN MINES	496 AX906		JAN.20.1980	UTM	11	6734670.25	603248.78	671.29	555	90	D	LS		081248M
1345	WESTERN MINES	498 AX904		JAN.24.1980	UTM	11	6733622.99	600415.15	671.95	545	90	D	LS		081248M
1346	WESTERN MINES	500 AX979		JAN.10.1980	UTM	11	6735211.63	603896.67	666.04	535	90	D	LS		081248M
1347	WESTERN MINES	501 AX979		JAN.13.1980	UTM	11	6735158.06	603808.74	666.04	545	90	D	LS		081248M
1348	WESTERN MINES	502 AX979		JAN.15.1980	UTM	11	6735233.61	603845.51	666.04	545	90	D	LS		081248M
1349	WESTERN MINES	504 GSR12		JAN.18.1980	UTM	11	67351535.19	603963.82	721.82	601	90	D	LS	79-1	081248M
1350	WESTERN MINES	505 GSR12		JAN.21.1980	UTM	11	67351535.86	603855.82	720.18	600	90	D	LS	79-1	081248M

DATA COLLECTION BORBNK: TECHNICAL DATA FOR MINERAL EXPLORATION BOREHOLES AND OIL WELLS IN THE PINE POINT AREA

BY K.U.WEYER AND W.C.HORWOOD-BROWN (NHRI-ENVIRONMENT CANADA, MARCH, 1983)

NUMBER	COMPANY	HOLE	CLAIM	DATE	SYS Z	NORTH	EAST	ELEV	LENGTH	DIP	T	RECV	LS	OREBDY	NDIAND
1351	*WESTERN MINES	506 AX951		JAN. 23, 1980	UTM 11	6731410.67	603773.65	721.16	505	90	D		LS	79-1	081248M
1352	*WESTERN MINES	507 G88		JAN. 27, 1980	UTM 11	6732111.59	603866.67	714.80	500	90	D		LS	79-2	081248M
1353	*WESTERN MINES	508 AX1068		JAN. 30, 1980	UTM 11	6730110.04	605440.10	740.85	202	90	D		LS	79-3	081248M
1354	*WESTERN MINES	509 AX1068		FEB. 03, 1980	UTM 11	6730158.76	605333.06	739.87	501	90	D		LS	79-3	081248M
1355	*WESTERN MINES	510 AX1107		FEB. 06, 1980	UTM 11	6730227.71	605529.46	739.87	504	90	D		LS	79-3	081248M
1356	*WESTERN MINES	514 AX719		FEB. 17, 1980	UTM 11	6734727.72	600947.53	668.34	595	90	D		LS		081248M
1357	*WESTERN MINES	515 AX882		FEB. 21, 1980	UTM 11	6734702.50	600811.42	660.79	603	90	D		LS		081248M
1358	*WESTERN MINES	516 AX882		FEB. 23, 1980	UTM 11	6734512.80	600310.59	662.76	603	90	D		LS		081248M
1359	*WESTERN MINES	520 AX1135		JAN. 08, 1980	UTM 11	6734919.53	605724.91	675.23	545	90	D		LS		081248M
1360	*WESTERN MINES	521 AX1096		JAN. 11, 1980	UTM 11	6735192.28	605587.89	672.93	555	90	D		LS		081248M
1361	*WESTERN MINES	522 AX1095		JAN. 14, 1980	UTM 11	6735574.30	605457.49	679.50	530	90	D		LS		081248M
1362	*WESTERN MINES	530 AX859		JAN. 27, 1980	UTM 11	6733832.54	602906.41	587.30	505	90	D		LS		081248M
1363	*WESTERN MINES	531 AX857		JAN. 29, 1980	UTM 11	6733832.54	602906.41	587.30	505	90	D		LS		081248M
1364	*WESTERN MINES	532 MR6A		JAN. 31, 1980	UTM 11	6740744.92	602936.47	574.17	585	90	D		LS		081248M
1365	*WESTERN MINES	533		FEB. 05, 1980	UTM 11	6741659.48	602903.86	561.05	530	90	D		LS		081248M
1366	*WESTERN MINES	534 AX1020		FEB. 06, 1980	UTM 11	6734506.59	604660.53	670.31	555	90	D		LS		081248M
1367	*WESTERN MINES	535 AX1019		FEB. 07, 1980	UTM 11	6734768.27	604496.92	669.00	550	90	D		LS		081248M
1368	*WESTERN MINES	536 AX1097		FEB. 08, 1980	UTM 11	6734627.01	605447.38	672.93	525	90	D		LS		081248M
1369	*WESTERN MINES	537 AX1097		FEB. 10, 1980	UTM 11	6734903.52	603322.21	672.93	525	90	D		LS		081248M
1370	*WESTERN MINES	541 AX1058		JAN. 14, 1980	UTM 11	6734913.10	605064.61	670.96	530	90	D		LS		081248M
1371	*WESTERN MINES	542 AX1057		JAN. 17, 1980	UTM 11	6735132.73	604923.70	669.32	544	90	D		LS		081248M
1372	*WESTERN MINES	544 AX1058		JAN. 21, 1980	UTM 11	6734593.35	605202.52	672.93	544	90	D		LS		081248M
1373	*WESTERN MINES	550 AX906		FEB. 03, 1980	UTM 11	6734781.37	600375.40	668.34	505	90	D		LS		081248M
1374	*WESTERN MINES	551 AX647		FEB. 05, 1980	UTM 11	6734781.37	600375.40	668.34	505	90	D		LS		081248M
1375	*WESTERN MINES	552 AX647		FEB. 07, 1980	UTM 11	6734781.37	600375.40	668.34	505	90	D		LS		081248M
1376	*WESTERN MINES	553 AX648		FEB. 10, 1980	UTM 11	6735503.42	600033.74	675.56	655	90	D		LS		081248M
1377	*WESTERN MINES	554 AX648		FEB. 12, 1980	UTM 11	6735361.65	600066.42	676.40	650	90	D		LS		081248M
1378	*WESTERN MINES	557 AX612		FEB. 18, 1980	UTM 11	6735588.19	599696.05	664.40	650	90	D		LS		081248M
1379	*WESTERN MINES	558 AX612		FEB. 20, 1980	UTM 11	6735277.10	599700.50	676.40	653	90	D		LS		081248M
1380	*WESTERN MINES	559 AX573		MAR. 02, 1980	UTM 11	6734170.81	599274.38	654.23	505	90	D		LS		081248M
1381	*WESTERN MINES	560 AX1233		JAN. 10, 1980	UTM 11	6735524.85	607094.87	690.65	557	90	D		LS		081248M
1382	*WESTERN MINES	561 AX1233		JAN. 16, 1980	UTM 11	6735799.52	606935.76	695.57	539	90	D		LS		081248M
1383	*WESTERN MINES	562 AX1201		JAN. 18, 1980	UTM 11	6736044.73	606830.84	695.57	521	90	D		LS		081248M
1384	*WESTERN MINES	563 AX1201		JAN. 21, 1980	UTM 11	6736162.84	606881.07	702.13	541	90	D		LS		081248M
1385	*WESTERN MINES	566 MR6A		FEB. 16, 1980	UTM 11	6740140.62	602966.68	584.02	455	90	D		LS		081248M
1386	*WESTERN MINES	567 MR6A		FEB. 18, 1980	UTM 11	6740045.06	592556.98	580.74	450	90	D		LS		081248M
1387	*WESTERN MINES	568 MR6A		FEB. 19, 1980	UTM 11	6741050.90	602929.23	570.89	493	90	D		LS		081248M
1388	*WESTERN MINES	569 MR6A		FEB. 16, 1980	UTM 11	6741353.71	602918.10	564.33	601	90	D		LS		081248M
1389	*WESTERN MINES	572 MR5A		FEB. 21, 1980	UTM 11	6741221.60	604567.79	567.61	603	90	D		LS		081248M
1390	*WESTERN MINES	574 MR5A		FEB. 24, 1980	UTM 11	6741828.98	604589.51	564.33	500	90	D		LS		081248M
1391	*WESTERN MINES	575 MR5A		FEB. 20, 1980	UTM 11	6742131.48	604570.39	561.05	600	90	D		LS		081248M
1392	*WESTERN MINES	576 MR5A		FEB. 26, 1980	UTM 11	6740322.43	603683.01	580.74	450	90	D		LS		081248M
1393	*WESTERN MINES	577 MR5A		FEB. 28, 1980	UTM 11	6740931.82	603654.61	570.89	455	90	D		LS		081248M
1394	*WESTERN MINES	578 MR5A		MAR. 03, 1980	UTM 11	6741235.35	603636.45	567.61	455	90	D		LS		081248M
1395	*WESTERN MINES	579 MR5A		FEB. 26, 1980	UTM 11	6741536.08	603623.41	564.33	500	90	D		LS		081248M
1396	*WESTERN MINES	580		JAN. 28, 1980	UTM 11	6733809.75	600780.27	670.96	625	90	D		LS		081248M
1397	*WESTERN MINES	581 AX721		JAN. 30, 1980	UTM 11	6733637.29	601197.36	679.82	621	90	D		LS		081248M
1398	*WESTERN MINES	582 AX684		FEB. 03, 1980	UTM 11	6733322.53	601209.97	682.41	605	90	D		LS		081248M
1399	*WESTERN MINES	586 AX684		FEB. 11, 1980	UTM 11	6733473.78	600413.24	674.90	645	90	D		LS		081248M
1400	*WESTERN MINES	587 AX685		FEB. 13, 1980	UTM 11	6733011.93	600426.73	680.81	652	90	D		LS		081248M

DATA COLLECTION BORBNK: TECHNICAL DATA FOR MINERAL EXPLORATION BOREHOLES AND OIL WELLS IN THE PINE POINT AREA

BY K.U.WEYER AND W.C.HORWOOD-BROWN (NHRI,ENVIRONMENT CANADA, MARCH,1983)

NUMBER	COMPANY	HOLE	CLAIM	DATE	SYS Z	NORTH	EAST	ELEV	LENGTH	DIP	T	RECV	LS	OREBDY	NDLAND
1401	*WESTERN MINES	588	AX719	FEB.15,1980	UTM 11	6733968.64	600774.56	667.68	615	90	D		LS		081248M
1402	*WESTERN MINES	589	AX685	FEB.17,1980	UTM 11	6733952.66	600781.39	673.20	625	90	D		LS		081248M
1403	*WESTERN MINES	591	AX685	FEB.21,1980	UTM 11	6733323.34	600480.60	677.52	600	90	D		LS		081248M
1404	*WESTERN MINES	592	AX685	FEB.23,1980	UTM 11	6733259.94	600421.80	677.52	610	90	D		LS		081248M
1405	*WESTERN MINES	598	AX684	MAR.07,1980	UTM 11	6733340.37	600353.52	675.23	610	90	D		LS		081248M
1406	*WESTERN MINES	599	MR5A	FEB.26,1980	UTM 11	6742158.70	603600.48	561.05	605	90	D		LS		081248M
1407	*WESTERN MINES	600	AX573	MAR.03,1980	UTM 11	6733866.04	599286.58	659.48	600	90	D		LS		081248M
1408	*WESTERN MINES	601	AX573	MAR.05,1980	UTM 11	6733256.30	599306.00	667.56	600	90	D		LS		081248M
1409	*WESTERN MINES	603	AX610	FEB.23,1980	UTM 11	6733886.45	599746.16	666.04	603	90	D		LS		081248M
1410	*WESTERN MINES	604	AX610	FEB.25,1980	UTM 11	6733823.05	599687.64	662.43	605	90	D		LS		081248M
1411	*WESTERN MINES	606	AX575	MAR.07,1980	UTM 11	6732936.54	599318.80	675.23	174	90	D		LS		081248M
1412	*WESTERN MINES	607	AX576	MAR.08,1980	UTM 11	6732916.58	599326.61	678.84	585	90	D		LS		081248M
1413	*WESTERN MINES	608	AX576	MAR.10,1980	UTM 11	6732483.09	598991.66	678.54	603	90	D		LS		081248M
1414	*WESTERN MINES	609	AX576	MAR.12,1980	UTM 11	6732787.63	598974.46	673.92	153	90	D		LS		081248M
1415	*WESTERN MINES	610	AX575	MAR.13,1980	UTM 11	6733102.08	598953.87	669.98	605	90	D		LS		081248M
1416	*WESTERN MINES	611	AX574	MAR.15,1980	UTM 11	6733405.89	598942.70	657.84	605	90	D		LS		081248M
1417	*WESTERN MINES	612	AX573	MAR.17,1980	UTM 11	6733733.92	598986.61	653.25	635	90	D		LS		081248M
1418	*WESTERN MINES	613	AX573	MAR.19,1980	UTM 11	6734013.92	598980.41	650.95	635	90	D		LS		081248M
1419	*WESTERN MINES	615	AX572	MAR.16,1980	UTM 11	6734480.58	599261.97	652.59	591	90	D		LS		081248M
1420	*WESTERN MINES	618	AX721	MAR.15,1980	UTM 11	6733182.38	600784.21	679.17	625	90	D		LS		081248M
1421	*WESTERN MINES	619	AX649	MAR.23,1980	UTM 11	6733062.08	600799.42	676.87	625	90	D		LS		081248M
1422	*WESTERN MINES	631	AX1008	MAR.07,1980	UTM 11	67339619.12	605564.90	597.14	500	90	D		LS		081248M
1423	*WESTERN MINES	632	AX1009	MAR.10,1980	UTM 11	6733900.62	605565.65	606.98	395	90	D		LS		081248M
1424	*WESTERN MINES	634	MR5A	MAR.04,1980	UTM 11	6741696.91	604594.88	594.37	431	90	D		LS		081248M
1425	*WESTERN MINES	635	MR5A	MAR.05,1980	UTM 11	6741696.91	604564.13	594.37	431	90	D		LS		081248M
1426	*WESTERN MINES	636	AX1006	MAR.06,1980	UTM 11	6740535.95	604566.22	580.74	505	90	D		LS		081248M
1427	*WESTERN MINES	637	AX1006	MAR.05,1980	UTM 11	6740230.62	604564.44	584.02	500	90	D		LS		081248M
1428	*WESTERN MINES	644	AX572	MAR.24,1980	UTM 11	6734322.70	599268.30	651.28	605	90	D		LS		081248M
1429	*WESTERN MINES	674	AX573	FEB.08,1981	UTM 11	6733385.67	598977.57	651.28	625	90	D		LS		081248M
1430	*WESTERN MINES	675	AX500	FEB.15,1981	UTM 11	6733702.88	599211.20	655.87	183	90	D		LS		081248M
1431	*WESTERN MINES	676	AX500	FEB.16,1981	UTM 11	6733398.82	599216.36	657.84	625	90	D		LS		081248M
1432	*WESTERN MINES	677	AX501	FEB.18,1981	UTM 11	6733100.97	599226.29	661.12	625	90	D		LS		081248M
1433	*WESTERN MINES	678	AX502	FEB.20,1981	UTM 11	6732796.04	599230.44	662.76	645	90	D		LS		081248M
1434	*WESTERN MINES	683	AX609	MAR.04,1981	UTM 11	6734252.73	599670.44	662.76	428	90	D		LS	0555	081248M
1435	*WESTERN MINES	701	MR6A	MAR.10,1981	UTM 11	6740264.01	602224.11	579.10	475	90	D		LS		081248M
1436	*WESTERN MINES	1001	WD76	NOV.27,1976	UTM 11	6732493.38	589726.36	633.23	650	90	D		LS		080038M
1437	*WESTERN MINES	1002	WD78	NOV.29,1976	UTM 11	6731775.59	589471.86	652.92	650	90	D		LS		080038M
1438	*WESTERN MINES	1003	WD82	DEC.06,1976	UTM 11	6730224.75	589433.88	698.52	669	90	D		LS		080038M
1439	*WESTERN MINES	1004	WD84	DEC.06,1976	UTM 11	6729055.86	589411.62	703.77	655	90	D		LS		080038M
1440	*WESTERN MINES	1005	WD70	DEC.09,1976	UTM 11	6735074.19	589728.90	587.20	650	90	D		LS		080038M
1441	*WESTERN MINES	1006	WD312	JAN.11,1977	UTM 11	6736636.40	589777.85	585.36	735	90	D		LS		080038M
1442	*WESTERN MINES	1007	WD312	JAN.11,1977	UTM 11	6735913.00	589401.22	625.32	655	90	D		LS		080038M
1443	*WESTERN MINES	1008	WD312	JAN.14,1977	UTM 11	6735974.64	589433.88	613.55	222	90	D		LS		080038M
1444	*WESTERN MINES	1009	WD312	JAN.16,1977	UTM 11	6734724.69	589413.82	631.59	225	90	D		LS		080038M
1445	*WESTERN MINES	1010	WD312	JAN.18,1977	UTM 11	6736363.51	589409.28	601.74	632	90	D		LS		080038M
1446	*WESTERN MINES	1011	WD312	JAN.25,1977	UTM 11	6732913.22	589445.83	670.21	685	90	D		LS		080038M
1447	*WESTERN MINES	1012	WD312	JAN.19,1977	UTM 11	6731526.73	589506.48	683.39	695	90	D		LS		080038M
1448	*WESTERN MINES	1013	WD312	JAN.21,1977	UTM 11	6729732.26	589407.58	682.71	764	90	D		LS		080038M
1449	*WESTERN MINES	1014	WD312	JAN.21,1977	UTM 11	6732963.20	589468.89	645.41	654	90	D		LS		080038M
1450	*WESTERN MINES	1015	WD312	JAN.23,1977	UTM 11	6731439.85	589468.71	668.90	665	90	D		LS		080038M

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BY K.U.WEYER AND W.C.HORWOOD-BROWN (NHRI, ENVIRONMENT CANADA, MARCH, 1983)

NUMBER	COMPANY	HOLE	CLAIM	DATE	SYS Z	NORTH	EAST	ELEV	LENGTH	DIP	I	REC V	LS	OREBDY	NDIAND
1451	WESTERN MINES	1016		JAN. 26, 1977	UTM 11	6729436.21	584586.61	717.88	685	90	D		LS		080638M
1452	WESTERN MINES	1017		JAN. 29, 1977	UTM 11	6729369.63	574285.38	666.04	825	90	D		LS		080638M
1453	WESTERN MINES	1018		FEB. 03, 1977	UTM 11	6730726.01	574148.07	657.51	900	90	D		LS		080638M
1454	WESTERN MINES	1019		FEB. 07, 1977	UTM 11	6732460.19	574168.93	646.32	895	90	D		LS		080638M
1455	WESTERN MINES	1020			UTM 11	6728016.53	569104.91	675.89	995	90	D		LS	WR 1020	080638M
1456	WESTERN MINES	1021		FEB. 03, 1977	UTM 11	6730592.23	569157.99	625.62	895	90	D		LS		080638M
1457	WESTERN MINES	1022		FEB. 06, 1977	UTM 11	6733026.91	569454.04	611.12	945	90	D		LS		080638M
1458	WESTERN MINES	1023		FEB. 10, 1977	UTM 11	6726666.74	569113.93	689.67	1050	90	D		LS		080638M
1459	WESTERN MINES	1024		FEB. 11, 1977	UTM 11	6728023.24	574274.93	673.29	900	90	D		LS		080638M
1460	WESTERN MINES	1025		FEB. 16, 1977	UTM 11	6727820.01	580802.12	708.89	550	90	D		LS		080638M
1461	WESTERN MINES	1026		FEB. 19, 1977	UTM 11	6727820.05	580802.13	709.02	170	90	D		A		080638M
1462	WESTERN MINES	1027		FEB. 23, 1977	UTM 11	6727814.48	580965.39	712.60	905	90	D		LS		080638M
1463	*WESTERN MINES	1035	WD829	JAN. 25, 1979	UTM 11	6727851.06	573599.33	669.65	1029	90	D		LS		080638M
1464	*WESTERN MINES	1036	WD828	JAN. 31, 1979	UTM 11	6728123.96	573567.44	668.24	1032	90	D		LS		080638M
1465	*WESTERN MINES	1037	WD780	FEB. 06, 1979	UTM 11	6727987.57	575030.12	678.18	1039	90	D		LS		081032M
1466	*WESTERN MINES	1038	WD781	FEB. 10, 1979	UTM 11	6728217.58	575029.95	677.30	856	90	D		LS		081032M
1467	YELLO. BASE MTL	1	AA107		UTM 11	6746619.73	620381.64	659	659	90	D		W85N		061382M
1468	YELLO. BASE MTL	2	AA106		UTM 11	6746321.04	620126.31	698	698	90	D		W85N		061382M
1469	YELLO. BASE MTL	3	AA107		UTM 11	6746392.80	620318.66	404	404	60	D		W85N		061382M
1470	YELLO. BASE MTL	4	AA91		UTM 11	6746748.16	620280.03	347	347	50	D		W85N		061382M
1471	YELLO. BASE MTL	5	AA106		UTM 11	6746665.56	620274.18	525	525	75	D		W85N		061382M
1472	YELLO. BASE MTL	6	AA106		UTM 11	6746636.33	620254.46	487	487	75	D		W85N		061382M
1473	YELLO. BASE MTL	7	AA107		UTM 11	6746616.03	620446.83	602.48	431	90	D		W85N		061382M
1474	YELLO. BASE MTL	8	AA108		UTM 11	6746361.02	620749.92	605.03	405	90	D		W85N		061382M
1475	YELLO. BASE MTL	9	AA107		UTM 11	6746361.02	620380.09			90	D		W85N		061382M
1476	YELLO. BASE MTL	10	AA108		UTM 11	6746332.64	620796.94	455	455	75	D		W85N		061382M
1477	YELLO. BASE MTL	11	AA106		UTM 11	6746428.62	620222.66	500	500	90	D		W85N		061382M
1478	YELLO. BASE MTL	11A	AA106		UTM 11	6746489.89	620229.36	650	650	90	D		W85N		061382M
1479	YELLO. BASE MTL	12	AA106		UTM 11	6746372.45	620115.10	651	651	90	D		W85N		061382M
1480	YELLO. BASE MTL	12A	AA106		UTM 11	6746309.47	620218.28			90	D		W85N		061382M
1481	YELLO. BASE MTL	13A	AA108		UTM 11	6746333.74	620748.09	648.6	648.6	90	D		W85N		061382M
1482	YELLO. BASE MTL	14	AA108		UTM 11	6746515.50	620792.67	702	702	90	D		W85N		061382M
1483	YELLO. BASE MTL	15	AA108		UTM 11	6746562.65	620979.91	273	273	90	D		W85N		061382M
1484	YELLO. BASE MTL	15A	AA103		UTM 11	6746566.30	620918.75	653	653	80	D		W85N		061382M
1485	YELLO. BASE MTL	16	AA107		UTM 11	6746476.01	620415.99	652	652	60	D		W85N		061382M
1486	YELLO. BASE MTL	17	AA107		UTM 11	6746353.02	620465.12	609.33	650	40	D		W85N		061382M
1487	YELLO. BASE MTL	18	AA106		UTM 11	6746446.39	619980.97	645	645	90	D		W85N		061382M
1488	YELLO. BASE MTL	19	AA106		UTM 11	6746495.37	620137.63	652	652	90	D		W85N		061382M
1489	YELLO. BASE MTL	20	AA108		UTM 11	6746313.05	621084.44	362	362	90	D		W85N		061382M
1490	YELLO. BASE MTL	22	AA107		UTM 11	6746363.47	620449.63	604.66	354	90	D		W85N		061382M
1491	YELLO. BASE MTL	23	AA107		UTM 11	6746335.56	620717.51	701	701	90	D		W85N		061382M
1492	YELLO. BASE MTL	24	AA107		UTM 11	6746403.79	620405.07	603.20	321	90	D		W85N		061382M
1493	YELLO. BASE MTL	25	AA107		UTM 11	6746417.33	620422.88	603.22	701	90	D		W85N		061382M
1494	YELLO. BASE MTL	26	AA108		UTM 11	6746381.50	620950.56			90	D		W85N		061382M
1495	YELLO. BASE MTL	28	AA107		UTM 11	6746336.04	620500.91	352	352	90	D		W85N		061382M
1496	YELLO. BASE MTL	29	AA64		UTM 11	6748087.85	620196.46	500	500	90	D		W85N		061382M
1497	YELLO. BASE MTL	30	AA107		UTM 11	6746409.50	620507.12	352	352	90	D		W85N		061382M
1498	YELLO. BASE MTL	31	AA107		UTM 11	6746356.66	620421.73	605.39	324	90	D		W85N		061382M
1499	YELLO. BASE MTL	32	AA107		UTM 11	6746381.24	620486.90			90	D		W85N		061382M
1500	YELLO. BASE MTL	33	AA107		UTM 11	6746320.69	620498.48	284	284	90	D		W85N		061382M

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BY K.U.WEYER AND W.C.HORWOOD-BROWN (NHRI-ENVIRONMENT CANADA, MARCH,1983)

NUMBER	COMPANY	HOLE	CLAIM	DATE	SYS	Z	NORTH	EAST	ELEV	LENGTH	DIP	T	RECV	LS	OREB	NDIAND
1501	YELLO. BASE MTL	34 AA107	UTM 11	6746333.61	620516.26	276	90	D	W85N	061382M						
1502	YELLO. BASE MTL	35 AA107	UTM 11	6746316.43	620514.40	266	90	D	W85N	061382M						
1503	YELLO. BASE MTL	36 AA107	UTM 11	6746324.82	620525.08	301	90	D	W85N	061382M						
1504	YELLO. BASE MTL	37 AA107	UTM 11	6746315.82	620525.17	348	90	D	W85N	061382M						
1505	YELLO. BASE MTL	38 AA107	UTM 11	6746312.17	620530.33	358	90	D	W85N	061382M						
1506	YELLO. BASE MTL	NP-1 ROC100	UTM 11	6746438.29	621302.14	348	90	D	W85N	018823M						
1507	YELLO. BASE MTL	NP-2 ROC100	UTM 11	6746374.21	621301.65	700	90	D	W85N	018823M						
1508	ALEXANDRA FALLS	NO.5 OIL WELL	UTM 11	6714800.00	514200.00	935	90	R	LS							
1509	ALEXANDRA FALLS	NO.1 OIL WELL	UTM 11	6704022.72	507727.70	975	90	R	LS							
1510	ALEXANDRA FALLS	NO.2 OIL WELL	UTM 11	6680081.27	523336.59	952	90	M	LS							
1511	ALEXANDRA FALLS	TEST NO.1 OIL WELL	UTM 11	6701963.38	535758.42	902	90	R	LS							
1512	ALEXANDRA FALLS	TEST NO.2 OIL WELL	UTM 11	6696541.91	535726.65	918	90	R	LS							
1513	ALEXANDRA FALLS	TEST NO.3 OIL WELL	UTM 11	6696164.43	535709.88	947	90	R	LS							
1514	ALEXANDRA FALLS	TEST NO.4 OIL WELL	UTM 11	6699070.23	535306.27	903	90	R	LS							
1515	ALEXANDRA FALLS	TEST NO.5 OIL WELL	UTM 11	6705331.13	546260.70	910	90	R	LS							
1516	ALEXANDRA FALLS	TEST NO.6 OIL WELL	UTM 11	6712913.59	546392.30	1600	90	R	LS							
1517	ALEXANDRA FALLS	TEST NO.7 OIL WELL	UTM 11	6718669.34	563872.61	2094	90	R	LS							
1518	CALF LAKE	6-16 OIL WELL	UTM 11	6757820.48	615678.60	2756	90	M	LS							
1519	CARIBOU EAST	13-11 OIL WELL	UTM 11	6757482.86	615087.80	3108	90	M	LS							
1520	CARIBOU LAKE	1-20 OIL WELL	UTM 11	6759194.74	547640.20	2770	90	M	LS							
1521	CLUB LAKE	10-15 OIL WELL	UTM 11	6758348.96	597861.29	2722	90	M	LS							
1522	DESMARIS	NO.1(G-38) OIL WELL	UTM 11	6757400.00	522000.00	529.3	90	R	LS							
1523	DESMARIS	J-48 OIL WELL	UTM 11	6757000.00	505600.00	596.4	90	R	LS							
1524	DESMARIS LAKE	K-29 OIL WELL	UTM 11	6759810.04	509006.85	558.4	90	R	LS							
1525	DESMARIS LAKE	NO.1 OIL WELL	UTM 11	6742100.00	511000.00	877.67	90	M	LS							
1526	DESMARIS POINT	E-72 OIL WELL	UTM 11	6765101.74	527295.63	1542	90	M	LS							
1527	ELIZABETH LAKE	6-34 OIL WELL	UTM 11	6755464.37	6118580.65	1405	90	M	LS							
1528	ESCARPMENT LAKE	NO.1 OIL WELL	UTM 11	6717759.24	542906.20	2085	90	M	LS							
1529	ESCARPMENT LAKE	NO.2 OIL WELL	UTM 11	6718287.90	543128.12	1532	90	M	LS							
1530	ESCARPMENT LAKE	NO.3 OIL WELL	UTM 11	6718436.43	542609.07	1550	90	M	LS							
1531	GREAT SLAVE L.	NO.1 OIL WELL	UTM 11	6754841.57	519860.75	1072	90	R	LS							
1532	GRUMBLER	F-07 OIL WELL	UTM 11	6700425.14	553968.75	2290	90	R	LS							
1533	GRUMBLER	G-63 OIL WELL	UTM 11	6674836.26	558029.71	2471	90	R	LS							
1534	GRUMBLER	I-16 OIL WELL	UTM 11	6699405.64	567047.18	2324	90	R	LS							
1535	GRUMBLER	I-72 OIL WELL	UTM 11	6692109.19	570661.66	2530	90	R	LS							
1536	GRUMBLER	J-13 OIL WELL	UTM 11	6675018.21	539103.28	2850	90	R	LS							
1537	GRUMBLER	J-22 OIL WELL	UTM 11	6692098.51	570110.02	2396	90	M	LS							
1538	GRUMBLER	L-05 OIL WELL	UTM 11	6673858.15	553951.12	2472	90	R	LS							
1539	HAY RIVER	TEST NO.1 OIL WELL	UTM 11	6730761.00	561111.00	712	90	R	LS							
1540	HAY RIVER	TEST NO.2 OIL WELL	UTM 11	6730877.00	561508.00	766	90	R	LS							
1541	HAY RIVER	TEST NO.3 OIL WELL	UTM 11	6731068.00	561807.00	781	90	R	LS							
1542	HAY RIVER	TEST NO.4 OIL WELL	UTM 11	6730309.00	561120.00	639	90	D	LS							
1543	HAY RIVER	TEST NO.5 OIL WELL	UTM 11	6730459.00	561118.00	558	90	M	LS							
1544	HAY RIVER	TEST NO.5B OIL WELL	UTM 11	6730459.00	561118.00	548	90	D	LS							
1545	HAY RIVER	TEST NO.6 OIL WELL	UTM 11	6730609.00	561114.00	579	90	D	LS							
1546	HAY RIVER	TEST NO.7 OIL WELL	UTM 11	6730451.00	560662.00	351	90	D	LS							
1547	HAY RIVER	TEST NO.8 OIL WELL	UTM 11	6730487.00	561573.00	1072	90	D	LS							
1548	HAY RIVER	TEST NO.9 OIL WELL	UTM 11	6746730.11	572194.38	2027	90	M	LS							
1549	HAY RIVER	E-30 OIL WELL	UTM 11	6743461.05	562997.30	772	90	M	LS							
1550	HAY RIVER	G-2 OIL WELL	UTM 11	6726845.96	557643.18	1097	90	M	LS							

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BY K.U.WEYER AND W.C.HORWOOD-BROWN (NHRI-ENVIRONMENT CANADA, MARCH, 1983)

NUMBER	COMPANY	HOLE	CLAIM	DATE	SYS Z	NORTH	EAST	ELEV	LENGTH	DIP	T	RECV	LS	OREBDY	NDIAND
1551	HAY RIVER	G-3 OIL WELL		FEB. 28, 1953	UTM 11	6717759.24	5429006.20	889	1461	90	M		LS		
1552	HAY RIVER	NO. 1 (1-41) OIL WELL		MAR. 02, 1967	UTM 11	6764499.47	5739222.66	513	837	90	M		LS		
1553	HEART LAKE	NO. 1 OIL WELL		FEB. 03, 1954	UTM 11	6741400.00	523200.00	796	1757	90	M		LS		
1554	HEART LAKE	NO. 2 OIL WELL		DEC. 19, 1954	UTM 11	6745469.41	520381.14	721	1648	90	M		LS		
1555	JACK LAKES	8-17 OIL WELL		FEB. 20, 1966	UTM 11	6590250.22	603585.55	1429	2638	90	M		LS		
1556	LITTLE BUFFALO	K-22 OIL WELL		JAN. 19, 1968	UTM 11	6733559.07	686583.11	555	736	90	M		LS		
1557	LITTLE RAPIDS	4-28 OIL WELL		FEB. 01, 1960	UTM 11	6570264.65	518730.60	1477	4444	90	M		LS		
1558	MID LAKE	H-33 OIL WELL		FEB. 21, 1968	UTM 11	6767097.36	548845.80	513	833	90	R		LS		
1559	PINE POINT	TEST G-1 OIL WELL		AUG. 05, 1952	UTM 11	6749745.20	640732.18	724	1181	90	D	64.2	LS		017193M
1560	PITCHIMI LAKE	16-11 OIL WELL		JAN. 28, 1961	UTM 11	6558574.88	639641.59	2291	3952	90	M		LS		
1561	REEF CREEK	G-15 OIL WELL		FEB. 10, 1966	UTM 11	6752200.00	539000.00	543	1192	90	M		LS		
1562	SULPHUR POINT	NO. 1 (0-07) OIL WELL		APR. 02, 1967	UTM 11	6758997.85	621424.54	513	440	90	M	35	LS		
1563	SULPHUR POINT	TEST G-4 OIL WELL		JUN. 20, 1953	UTM 11	6755204.99	620609.44	538.9	1350	90	D	79.7	LS		017193M
1564	TWO LAKES	10-16 OIL WELL		JAN. 17, 1961	UTM 11	6549601.99	597927.13	3054	3865	90	M		LS		
1565	WHITESANDS	12-20 OIL WELL		JAN. 23, 1961	UTM 11	6608961.57	573760.89	1774	3870	90	M		LS		
1566	WINDY POINT	NO. 1 OIL WELL		AUG. 11, 1920	UTM 11	6798383.07	580686.39	525	1806	90	R		LS		
1567	WOOD BUFFALO	14-22 OIL WELL		FEB. 22, 1960	UTM 11	6493796.79	620186.33	819	2425	90	R		LS		
1568	WOOD BUFFALO	C-03A OIL WELL		MAY 23, 1969	UTM 11	6713175.95	636262.39	836	1142	90	D	57	LS		
1569	WOOD BUFFALO	C-74 OIL WELL		APR. 06, 1969	UTM 11	6714847.12	624228.45	853	1191	90	D	98	LS		
1570	WOOD BUFFALO	L-42 OIL WELL		JUN. 21, 1969	UTM 11	6712763.07	642413.13	829	1085	90	D	63	LS		
1571	YATES RIVER	6-34 OIL WELL		FEB. 04, 1961	UTM 11	6591904.26	548427.70	1673	2910	90	M		LS		

APPENDIX 3

Hydrogeologic logs of oilwells

Iskut Little Buffalo	K-22
CDR Wood Buffalo	C-74
CRD Wood Buffalo	L-42

Logged in 1982 by K.U. Weyer at the core storage facility of the
Institute of Sedimentary and Petroleum Geology, Calgary

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ISKUT LITTLE BUFFALO K-22

Technical and geologic data from "Schedule of Wells, 1920 - 1979", p.60-50-1, published by DIAND, 1980 (correct identifier is: Little Buffalo K-22, and not N-22 as printed).

Iskut Little Buffalo N-22

D.A. 282

N-22-60-50-113-30

300N226050113300

Location: 60°41'45" 113°34'55"

Lat. 60.69583 Long. 113.58199

Classification: New Field Wildcat

Gr. 555 169.3

K.B. ?

Status: D & A

T.D. 736 224.5

Spud: 68-01-19

Completed: 68-01-23

Casing:

13 1/2 x 81, C 1 88.9 x 24.7, C .01

Size of hole:

6 1/4" 0-96 158.8 0 - 29.3

2 1/2" 96-736 63.5 29.3 - 224.5

Samples:

41-736 12.5-224.5

Logs: Nil

Cored Intervals:

41-239 12.5 - 72.9

239-519 72.9 - 158.3

519-695 158.3 - 212.0

695-712 212.0 - 217.2

712-736 217.2 - 224.5

Cores Available: Approximately 98% recovery

Tests: None run

Geologic Tops:

Little Buffalo (Keg River) 41 12.5

L Keg River 77 23.5

Chinchaga (equiv) 233 71.1

Chinchaga (anhy) 240 73.2

Cold Lake 518 158.3

Ernestina Lake 565 172.3

Basal beds 614 187.3

Prec 712 217.2

HYDROGEOLOGIC LOG ISKUT LITTLE BUFFALO K-22 (41-736 FT.)

Explanations:

- depth in feet (as in core boxes)
- porosity measurements in cm and mm
- stratigraphy based on "Report on the Drilling and Abandonment of Iskut Little Buffalo K-22" (1968), after "Schedule of Wells, 1920-1979" (1980) and own core observations.

Upper Keg Formation (UA: 41 - 63)

41	-	61.5	domomite, very vuggy, maximum: 1 * 5 cm, average: 0.5-1cm, calcite in vugs.
61.5	-	63	dolomite, vuggy, calcite in vugs.

Lower Keg Formation (LA: 63 - 240)

63	-	77	dolomite, vuggy, calcite in vugs.
78	-	103	E-shale with dolomite
117	-	126	limestone, vuggy, maximum 0.75 * 2cm, average: 0.1 * 1 cm, vugs after fossils, sulfur in vugs, calcite in vugs.
126	-	147	limestone, pin point porosity, occasional vugs
147	-	231	limestone
		179.5	vug, 0.3 * 3 cm, calcite in vugs, fracture filled, calcite in fracture
		182.5	pin point porosity, up to 1 * 2 mm
		194-195	pin point porosity
		206.5-207	vugs, 3 * 5 mm, calcite in vugs
		210-218	occasional vugs, up to 3 * 5 mm
231	-	238	dolomite
		231-233	vuggy, up to 1 * 3 cm, calcite in vugs
		233.5-234	open, vertical fractures
		234-235.5	pin point porosity
		235.5-238	vuggy
238	-	240	more pin point porosity, open, vertical fractures.

Chinchaga Formation (CH: 240 - 507)

240	-	507	anhydrite
		240-251	gypsum on fractures
		251-252.5	open fractures, gypsum on fractures, pin point porosity on fractures
		252.5-276	gypsum on fractures, horizontal discs up to 1 cm thick, vertical fractures up to 3 mm wide
		294	oblique fracture filled with gypsum
		346-348	vertical fracture zone with pin point porosity
		429-449	porous layers up to 0.5ft thick, pin point porosity
		449.5-450.5	porous, gypsum, on fractures, partly open fractures, horizontal to oblique, up to 2 mm wide.
		457.3-458	porous, open horizontal fractures, width 0.3 mm
		460-461	open fractures about horizontal, width up to 0.5mm

462.3-462.7 open horizontal fractures
 464-464.5 porous layer, open fractures up to 0.3 mm wide
 porous zones above associated with clastic layers.

Mirage Point Formation (MP: 507 - 712)

507	-	527	mudstone, vari-coloured red and green with irregular anhydrite, brecciated in part.
		519-527	salt on fractures
527	-	565	breccia, predominantly red with minor green, angular fragments up to 2.5 cm in diameter in red matrix, Cold Lake equivalent
		527-550	salt on fractures
565	-	581	anhydrite
581	-	607	dolomite, very porous, mainly core loss
		581-585	porous, pin point porosity
		585-599	poor core recovery, porous, pin point porosity
		602-608	poor core recovery
600	-	615	zone of circulation loss (from drillers record)
607	-	616.5	anhydrite
616.6	-	619	breccia, angular shale fragments in shale matrix, gypsum crystal, 3 * 3 cm, with zonation "rings"
619	-	653.6	marl, dolomitic gypsum on fractures, broken
		653-653.6	open fractures, salt on fractures
		653.4	salt on a fracture, 0.3 * 4 cm
653.6	-	658.5	anhydrite
		653.6-655	open fractures, salt on fractures, salty taste
		655-657.5	salt on fractures, salty taste, pin point porosity, up to 1 * 2 mm
658.5	-	662.5	dolomite, salt on stylolites
664	-	666	marl, reddish
666	-	666.5	breccia, angular fragments some slightly rounded, open fractures, vuggy, calcite in vugs, salty taste
666.5	-	687	marl
		675-682.5	open fractures, gypsum on fractures, dissolution structures, width of openings up to 0.3 * 3 cm, room and pillar structure, salty taste
687	-	712	sandstone
		687-697	greenish
		695-708	core recovery 5 ft. of 13 ft., according to core boxes
		697-712	weathered yellowish appearance, very porous, looks like clean friable sand (sample 2 at 709ft)

Precambrian (PC: 712 - 736)

712	-	736	coarse grained gneiss, reddish, weathered, permeable (sample 1 at 718.5ft)
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TESTING OF CORE SAMPLES

- I. Mirage Point Formation (sample 2, depth 709ft, Box 96)
 1. General description of sample: granite wash, weathered yellowish appearance, very porous, looks like clean sand, starts crumbling when washed.
 2. Description of thinsection (H. Geldsetzer, ISPG, K.U. Weyer, NHRI; preparation of thinsection by O. McEwan, ISPG):
 Quartz grains with siliceous cement, (no gypsiferous or carbonaceous cement), slightly brownish in normal transmitted light, grains rounded and fractured, fractures clean; under gypsum plate no ghost structures seen which would indicate old boundaries within the grains, some second generation quartz grains; in 50% of the grains extinction under nichols is suddenly (probably derived from igneous source rock); in 50% extinction is wavy (probably metamorphic source rock)
 3. Permeameter testing for vertical intergranular permeability to air: 4020 m Darcy (Core Laboratories - Canada Ltd., Calgary, December 9, 1981).
- II. Precambrian (sample 1, 718.5ft, Box 98)
 1. General description of sample: gneiss, coarse-grained, weathered.
 2. Description of thinsection (H. Geldsetzer, ISPG, K.U. Weyer, NHRI; preparation of thinsection by O. McEwan, ISPG):
 gneiss, strongly weathered, small metamorphic quartz grains, intergrown, many feldspars and quartz grains have strain shadows, fragmented, subrounded, cryptocrystalline pyrite, good porosity, porosity holes with halos, organic material may be present.
 3. Investigation for organic material (W. Kalkreuth, ISPG, sample preparation, K. Pratt, ISPG).
 - a. polished thinsection without glass cover:
 investigation in transmitted and incident light under photometer microscope indicated the presence of organic material.
 - b. polished block mould of gneiss sample in epoxy: (W. Kalkreuth, K. Pratt):
 incident light under photometer microscope measured a reflection of 10-11% in oil, 546 um; organic material present would probably be graphite.
 - c. organic carbon determination with Leco analyser (L. Snowden, ISPG)
 4. Permeameter testing for vertical intergranular permeability to air: 0.98 m Darcy (Core Laboratories - Canada Ltd., Calgary; Dec. 9, 1982).

CDR WOOD BUFFALO C-74

Technical and geologic data from "Schedule of Wells, 1920-1979" p. 60-40-1, published by DIAND, 1980.

CDR Wood Buffalo C-74

D.A. 369

C-74-60-40-114-30

300C746040114300

Location: 60°33'07.79" 114°44'05.02"

Lat. 60.55216 Long. 114.73472

Classification: New Field Wildcat

Gr. 863 263.0

K.B. 863 263.0

Status: D & A

T.D. 1,191 363.0

Spud: 69-04-06

Completed: 69-05-06

Casing:

2 7/8 x 152, C 4 73.0 x 46.3, C .04

Size of hole:

2 7/8" 0-152 73.0 0 - 46.3

1 3/4" 152-1191 44.5 46.3 - 363.0

Samples:

None--well cored continuously

Logs: Nil

Cored Intervals:

80-1191 24.4 - 363.0

Cores Available: All

Tests: None run

Geologic Tops:

Hay River 80 24.4

Slave Point 85 25.9

Fort Vermillion Mbr 232 70.7

Watt Mt 317 96.6

Sulphur Point 328 100.0

Pine Point (dol) 377 114.9

Muskeg 431 131.4

Keg River 850 259.1

L Keg River (dol) 935 285.0

Lonely Bay (lms, dol) 1031 314.2

Chinchaga (dol) 1145 349.0

Chinchaga (anhy, dol) 1170 356.6

HYDROGEOLOGIC LOG - CDR WOOD BUFFALO C74 (80-1191 FT.)

Explanations: - depth is in feet (as in core boxes)
 - porosity measurements in cm and mm
 - stratigraphy based on "Well History Record on the Drilling and Abandonment of CDR Wood Buffalo C-74" (1969), "Schedule of Wells, 1920-1979" (1980), a stratigraphic log by D.H. Adams, Cominco Ltd. (1982, personal communication) and own core observations.

Hay River Formation (HR: 80-85)

80.0 - 85.0 shale, fractured

Slave Point Formation (SPF: 85 - 285)

85.0 - 90.0 shale

89.5 - 90.0 green shale and limestone fragments infilling
 a

fracture, 3 cm wide
 90.0 - 232 limestone
 124.6, 129.3, 130.6 calcite in fractures, fossils
 134.2, 143, 176.4 calcite in fractures, fossils
 164 - 220 bedding, about 80-85° to core axis
 198 gypsum crystals in small fractures
 199 gypsum crystals
 203 pin point porosity, up to 0.3 mm diameter
 203.5 gypsum crystals, open hairline fractures
 204 pin point porosity in fractures filled with carbonate
 204.1 gypsum
 205.4-205.6 pin point, up to 0.5 mm diameter
 208 fractures filled with calcite
 211.5-212 pin point porosity, up to 3mm diameter
 sample 211-211.6 (No.2)
 216.7-227.5 pin point porosity
 227.5-228 vugs up to 1 cm diameter, pin point porosity
 228.2-228.7 pin point porosity, up to 2 mm diameter
 232 - 275 Fort Vermillion member, interbedding of anhydrate, gypsum, dolomite, shale
 232-233 fractures filled with gypsum, up to 0.5 cm wide.
 233-234.2 gypsum in fractures, 1-2 mm wide
 234.2-236.7 gypsum in fractures, 0.5 cm wide
 238.2-238.4 gypsum in fractures, up to 3 cm wide
 239-243 gypsum in fractures, up to 4 cm wide
 243-243.5 gypsum in fractures, 0.5 cm wide
 243.5-247 fractures, filled with gypsum, partly open, horizontal opening: 2 cm x 0.5 mm
 247.5-248.6 fractures filled with gypsum, up to 4mm wide
 248.6-249.5 vuggy, up to 3 mm diameter, horizontal fractures filled with gypsum, partly open, opening 1.5 cm x 0.5mm
 249.5-254.5 horizontal fractures filled with gypsum, up to 0.5 cm wide
 254.5-256.3 core loss
 257-257.5 core loss, cuttings contain white gypsum 3 cm wide
 254.5-257.5 highly permeable zone (?)

257.5-259.5	fractures and cavities filled with gypsum, up to 1 cm.
259.5-261.0	pin point porosity, horizontal pipes up to 0.5 mm diameter
272-275	pin point porosity, about 0.2 mm diameter
275 - 285	Amco - equivalent, dolomite
275-277	cuttings only, core loss
278-279	cuttings only, core loss
283	horizontal fracture filled with gypsum, 2 cm wide
284	vug with sphalerite (?), 1.5 * 1 cm
284.7-285.5	vugs filled with gypsum

Watt Mountain Formation (WM: 285-327.5)

285 - 327.5	dolomite, mudstone, green clay
285-286	vertical fractures filled with gypsum, up to 1 mm wide
286.5-290.5	vertical fractures filled with gypsum, up to 1 cm wide <u>sample 288.7-289</u> (No.3), vertical fracture, filled with gypsum
290.5-292.4	vertical fracture, filled with gypsum, up to 1 mm wide
294	4 cm of horizontal cavities, 4 mm * 0.5 mm gypsum in horizontal fractures
294.2-303	gypsum in horizontal fractures
303-304.5	open vugs within fractures filled with gypsum
305.8	fine vertical fractures filled with gypsum
309-309.5	fractures filled with gypsum, 1 cm wide
313-315	pin point porosity, horizontal "pipes", about 0.5 mm diameter, fractures filled with gypsum, 4 mm wide.
315-317.5	pin point porosity, 1 mm diameter, horizontal fractures filled with gypsum, 4 mm wide.
323-327.5	fractures filled with calcite and green waxy clay.

Pine Point Group (PPG: 327.5-965)

Sulphur Point Formation (327.5 - 377)

327.5 - 377	limestone
327.5-330	fractures filled with green clay
331	fractures filled with calcite, 2 cm wide
335.5-343	pin point porosity, oil stain
341.4-350.5	fractures filled with calcite, some pin point porosity
344-347	stylolithes
350.5-355	collapse breccia
350.5-361	pin point to vuggy porosity, oil stain
355	lost circulation zone
361-365	pin point porosity, 0.5 mm diameter, fractures filled with elemental sulfur, 0.1 mm wide
372	fracture filled with elemental sulphur, 0.1 mm wide

- 374.6 open fracture filled with elemental sulphur and calcite crystals, 1 cm wide
 374.8-375.1 cavity filled with rock pieces, elemental sulphur and calcite
 375-377 vugs and fractures filled with elemental sulphur and calcite crystals

Pine Point Formation (377-431.5)

- 377 - 431.5 dolomite and limestone
 377-382.2 vugs filled with elemental sulphur and calcite crystals
 377-390 bedding about 80-85° to core axis
 377.3 fractures, partially open, filled with elemental sulphur and calcite, 2 cm wide
 390-392 bedding 45° to core axis
 383-392 vugs and fractures filled with calcite, pin point porosity, 0.5 mm diameter
 394 oblique fracture filled with calcite
 404 fracture with gypsum, 3 cm wide
 424.8 fracture with gypsum, 3 cm wide
 428-428.5 vugs and fractures filled with gypsum
 430-431.5 bedding about 80° to core axis, contact with underlying muskeg is abrupt and at an angle of 45°, exhibiting a jagged surface, pin point porosity

Muskeg Formation (431.5 - 849.5)

- 431.5 - 849 interbedding of anhydrite, gypsum, shale and dolomite (facies: J₁, J₂, J₃, J₅)
 431.5-474 anhydrite
 438.2 horizontal fracture filled with gypsum, 4 mm wide
 446.3 oblique fracture filled with gypsum, 0.4 cm wide
 457.3 oblique fracture filled with gypsum, 2 mm wide
 466.8 vug filled with gypsum and a light brown crystal
 469.1-470 gypsum crystals with growth zonation imbedded in anhydrite
 473.6 horizontal fracture filled with gypsum, 1 mm wide
 474 - 504 dolomite with some anhydrite, some sections broken and rehealed.
 474-505 pin point porosity, fine
 479-480 sigmoidal vugs, open, 1.5 cm * 2 mm.
 480.5 vug filled with gypsum, 5 mm diameter
 488-5.491 vugs and fractures filled with gypsum
 497 vug filled with gypsum
 502 vug open, 1 cm * 1 mm
 505 - 561 anhydrite and dolomite interbedded, broken and rehealed
 504.5 4 cm of open vuggy layer in anhydrite
 508.5-509 fractures and vugs filled with gypsum, fracture width 1 cm.
 521.5 vugs filled with gypsum

525-530	horizontal fractures filled with gypsum, up to 1.5 cm wide
531-531.6	vugs filled with gypsum
531.6-537.6	pin point porosity, 0.3 mm diameter
543,545.6	horizontal fractures filled with gypsum
552-561	many small fractures filled with gypsum
561 - 604	anhydrite, sections broken and rehealed
576.2	horizontal fracture filled with gypsum, 2 mm wide
582-582.5	horizontal fractures filled with gypsum, 1.5 mm wide.
587-587.5	horizontal fractures filled with gypsum, 1.5 mm wide.
603.6	8 cm gypsum
604-675	interbedded dolomite, shale, anhydrite and gypsum, sections broken and rehealed
606-608.6	some horizontal pin point porosity, samples 607.2 (No.1) and 607.35 (No.4)
607-608.5	some core loss
613	oblique fracture filled with gypsum, 3 mm wide
614.8	oblique fracture filled with gypsum, 4 mm wide
618	oblique fracture filled with gypsum, 1 cm wide
619.2	0.5 cm "fault zone", horizontal fracture with 3mm gypsum
631.2	horizontal fracture filled with gypsum, 5 cm wide
631.5	horizontal fracture filled with gypsum, 0.5 cm wide
635.5	horizontal fracture filled with gypsum, 0.5 cm wide
659.3	horizontal fracture filled with gypsum, 0.5 cm wide
660-660.5	"fault zone" with gypsum in fractures
661-662	"fault zone" with gypsum in fractures
663.8	"fault zone" with gypsum in fractures
667-668	gypsum in fractures up to 0.5 cm wide
671-674.5	many horizontal fractures filled with gypsum, up to 4 mm wide.
675 - 691	dolomite
676.7-679.7	vugs, filled with gypsum up to 1 cm diameter, some open vugs, pin point
687-690.2	vugs, filled with gypsum up to 1 cm diameter, some open vugs, pin point
691 - 734.5	anhydrite, gypsum, dolomite and shale interbedded, some sections broken and rehealed with gypsum
691.7-694.5	anhydrite with many fractures filled with gypsum
695	"fault zone", one horizontal fracture filled with gypsum, 2 mm wide
704-705.5	dolomite (J_2 - facies) bedding 80-85° to core axis
705-706	vertical fracture filled with gypsum, 3 mm wide
709.6	oblique fracture filled with gypsum, 3 mm wide, partially open, openings: 0.7 cm * 0.5 mm and 3mm * 0.4 mm.
709-715	gypsum crystals with growth zonation imbedded in anhydrite
730.3	8 cm "fault zone" in anhydrite, horizontal fractures filled with gypsum, up to 1 cm wide

745.5	-	749	dolomite
734-735.6			fine fractures filled with gypsum
737-745			pin point porosity, "pipe" openings 0.3 mm diameter
745-749			fractures filled with gypsum
749	-	849.5	anhydrite and dolomite, interbedded, sections broken and rehealed, collapse structures, well site geologist reported salt crystals to have formed on core.
750-755.8			gypsum crystals with growth zonation imbedded in anhydrite
750.2			horizontal fracture filled with gypsum, 3 mm wide
750.7			horizontal fracture filled with gypsum, 4 mm wide
755-755.5			dolomite (J_2 - facies), bedding 60-80° to core axis.
767-768			vugs and fractures in dolomite filled with gypsum
770-774.3			gypsum crystals with concentric rings imbedded in anhydrite, sample 773.2-773.4
778.5-779.2			vugs filled with gypsum, concentric rings
788.2			horizontal fracture filled with gypsum, 3 mm wide
788.2-789.7			irregular fractures with gypsum infilling
789-789.5			dolomite (J_2 - facies) bedding 45-90° to core axis
793-795			vugs and fractures filled with gypsum
797			horizontal fracture filled with gypsum, 1.5 cm wide
801-802.6			vugs filled with gypsum
802.8			horizontal fracture with gypsum infilling, 2 mm wide
803.2			horizontal fracture with gypsum infilling, 2 mm wide
803.2-804.5			"fault zone" in anhydrite finely fractured, gypsum in fractures
808.7			horizontal fracture with gypsum, 2 mm wide
806-815			gypsum crystals with concentric rings imbedded in anhydrite
815.3			horizontal fracture, 2 mm gypsum
816.5-819			vugs filled with concentric rings of gypsum
822	-	823	"fault zone" in anhydrite
822.5			horizontal fracture, 2 mm gypsum
829.8	-	837	gypsum in fractures and vugs, up to 4 cm
836.7			horizontal fracture with 0.5 cm gypsum
837-839			"fault zone"
840.3-844			vugs and fractures filled with gypsum
847-848.5			"fault zone" in anhydrite with gypsum on fractures
848.5-849.5			dolomite (J_2 - facies), contorted bedding, 75-80° to core axis
848.6			oblique fracture with gypsum infilling, 1 mm wide
848.8			oblique fracture with gypsum infilling, 5 mm wide
848.9			oblique fracture with gypsum infilling, 0.3 mm wide

Upper Keg River Formation (UA: 849.5 - 965)

849 - 965	dolomite, section broken and rehealed with gypsum.
850-870	vugs and fractures filled with gypsum, vugs up to 2 cm diameter, small open vugs, pin point porosity, <u>samples: 850.4 (No.6), 854.1 (No.7)</u>
861-870	some open vugs, up to 1 cm * 4 mm
870-887	fractures filled with gypsum, vugs filled with gypsum, up to 2 * 1 cm, open vugs up to 1 * 0.5 cm, pin point porosity.
871.5	4 cm layer of vugs, up to 6 * 6 mm
874.5	galena crystals
887-902	vugs, filled with gypsum crystals, some open, diameter of vugs up to 0.75 cm
902-931	<u>samples: 893-893.2 (No.8), 893.4 (No.9),</u> vugs open up to 2 * 1 cm and open fractures <u>samples: 908.5 (No. 10), 930.1</u>
916.5-921.5	core loss
925.3, 927.9	sphalerite in vugs and fractures
931 - 965	vugs with crystal linings, diameter up to 3 * 2 cm, spongy in parts; <u>samples: 930.1, 959.6 (No. 5), 959.8 (No. 1,2,3).</u>
933.3-935.3	core loss
941.3-942.6	core loss
946.6-948.4	core loss

Lower Keg River Formation (LA 965-1169.6)

965 - 1169.5	dolomite with some argillaceous mudstone, sandstone
965-1000	and wackestone, E-shale 1022.5-1026.5 vugs with crystal linings, diameter up to 2 cm and bigger, spongy in parts, vertical fractures, partially open; <u>sample: 971.6</u>
967.3-968.1	core loss
989-989.9	core loss
1000-1013.5	occasional vug, gypsum in oblique and vertical fractures partially open, some fractures filled with dolomite
1014	marcasite
1018-1021	"fault zone" fractures partially open, partially filled with gypsum
1018.7-1019.5	gypsum
1021-1035	some fractures filled with calcite, and also gypsum, up to 4 mm wide
1035-1057	a few fractures filled with calcite, pyrite dissiminated in rock
1058, 1061, 1062, 1063.5	white dolospar, pulled apart and healed again with gypsum
1068.5, 1072.7, 1088	white dolospar, pulled and healed again with gypsum
1091.2, 1092.1	white dolospar, pulled and healed again with gypsum
1093.5-1100	pin point porosity, vugs up to 1 cm * 3 mm, fractures filled with dolospar

1133-1168 occasional small vugs open, salty taste
 samples: 1133 (No.12), 1138.8 (No. 13), 1166
 (No. 11)
1164-1166 vugs filled with gypsum

Chinchaga Formation (CH: 1169.5 - 1191)

1169.5 - 1191 anhydrite with some dolomite (1169.5-1172.5,
 1182-1183.5)
 1169.5-1171.5 fine fractures in dolomite filled with gypsum
 1172.1 fracture filled with gypsum, 1 cm wide.

TESTING OF CORE SAMPLES

I. Description of samples (D. Adams, Cominco Ltd., Calgary; modified and extended by K.U. Weyer, NHRI; carbonate classification after Embry III and Klován, 1971, Fig. 2).

1. Slave Point Formation

- a. sample at depth 211.6 ft. (permeameter test number 2)
lime-mudstone to wackestone, light-medium brown, horizontal pin point porosity after leached fossils (?), intraclastic, some wavy bedding.

2. Watt Mountain Formation

- a. sample at depth 288.7 ft (permeameter test number 3)
dolostone light-grey brown, microcrystalline to very fine crystalline, earthy, blotchy bedded (marcasite dissiminations), cut by near vertical gypsum cemented fractures.

3. Pine Point Group.

A. Muskeg Formation

- a. sample at depth 607.2 ft (permeameter test number 1).
mudstone to wackestone, tan (light brown), intraclastic and dolomitized, micro to very fine crystalline, common shell fragments (brachiopods?) and minor amphipora; some pin-point porosity after leached shells and intraclast fragments; some porosity plugging with clear gypsum, J₅-subfacies.
- b. sample at depth 607.35 ft. (permeameter number 4).
description same as sample 607.2 ft.
- c. sample at depth 773.4 ft.
anhydrite, medium blue-grey, massive bedded; scattered small blebs of gypsum with concentric banding; also scattered minor small blebs of white gypsum.

B. Upper Keg River Formation

- a. sample at depth 850.4 ft. (permeameter test number 6).
dolostone, light brown, fine to very fine crystalline, clean massive bedded, J₃ to E like appearance, pin point porosity (interstitial ?) minor small to medium sized vugs (up to 6 * 9 mm openings) gypsum plugging in part (appears dissolved).
- b. sample at depth 854.1 (permeameter test number 7).
dolostone, light to medium brown, fine to very fine crystalline, fairly clean massive, trace argillaceous wisps, fine interstitial porosity, J₃ to E to B - offreef like appearance.

- c. sample at depth 893 ft. (permeameter test number 8). dolostone, light grey brown, micro to very fine crystalline, slightly argillaceous - wispy bedding, intraclastic, pin point porosity, small and medium sized vugs (up to 3 * 3 mm diameter) after leached fossils (?) and/or intraclasts, B-offreef like appearance.
- d. sample at depth 893.4 ft. (permeameter test number 9; flow through vugs also tested).
description same as sample 893 ft.; one vug system penetrates core horizontally; inlet: 5 * 4 mm; outlet: 2 * 0.4 cm.
- e. sample at depth 908.5 ft. (permeameter test number 10). dolostone, light grey known, micro to very fine crystalline, slightly argillaceous to wispy bedding (mainly leached or bleached appearance), scattered fossils (amphipora, euryamphipora, wispy stromatoporoids and syringopora coral hash), pin point porosity, plus some skeletal porosity, B-offreef like.
- f. sample of depth 959.6 ft. (permeameter test number 5; flow through vugs also tested).
dolostone, medium brown, very fine crystalline, slightly argillaceous, very fossiliferous - floatstone of thamnapora, euryamphipora and small fossil hash, pin point to small and medium vug porosity after leached fossils (?), spongy (vug sizes measured: 1.5 * 1 cm, 0.5 * 0.5 cm, 1.5 * 0.8 cm), equivalent to spongy horizon at Pine Point.

4. Lower Keg River Formation

- a. sample at depth 1133 ft. (permeameter test number 12) wackestone, medium to dark brown, argillaceous, crinoidal, dolomitized (only slightly limy), minor pin point porosity, some after leached fossil hash, trace of gypsum plugging porosity.
- b. sample at depth 1138.8 ft. (permeameter test number 13). description same as sample 1133; in addition: well defined nodular bedding (sedimentary bonding), gypsum plugging fracture (?), minor pin point porosity in fracture.

- c. sample at depth 1166 ft. (permeameter test number 11)
dolostone, light grey brown, very fine crystalline, massive
to slightly laminated with argillaceous wisps, some
interstitial porosity, J₃ texture, transition zone to
Chinchaga Formation.

II. Permeameter tests for vertical intergranular permeability in core samples.

- 1. Slave Point Formation: sample 211.6
- 2. Watt Mountain Formation: sample 288.7 (gypsum filled fracture)
- 3. Pine Point Group:
 - Musket Formation - samples 607.2 (two samples)
 - Upper Key River Formation
 - samples 850.4, 854.1, 893, 893.4, 908.5, 959.6
- 4. Lower Key River: samples 1133, 1138.8, 1166

III. Flow testing of vugs penetrating cores horizontally

- 1. Upper Keg River Formation:
samples 896.6, 930.1, 959.8, (1, 2, 3)
- 2. Lower Keg River Formation:
samples 971.6 (1, 2)

CDR WOOD BUFFALO L-42

Technical and geologic data from "Schedule of Wells, 1920 - 1979"
p. 60-40-1, published by DIAND, 1980.

CDR Wood Buffalo L-42			
D.A. 367			
L-42-60-40-114-15			
300L426040114150			
Location: 60°31'38.96" 114°24'18.25"			
Lat. 60.52749 Long. 114.40507			
Classification: New Field Wildcat			
Gr. 829		252.7	
K.B. 829		252.7	
Status: D & A			
T.D. 1,085		330.7	
Spud: 69-06-21			
Completed: 69-07-06			
Casing:			
2 1/4 x 160, C 5		57.2 x 48.8, C .05	
Size of hole:			
2 1/4"	0-160	57.2	0 - 48.8
1 3/4"	160-1085	44.5	48.8 - 330.7
Samples:			
None--well cored continuously			
Logs: Nil			
Cored Intervals:			
75-1085		22.9 - 330.7	
Cores Available: All			
Tests: None run			
Geologic Tops:			
Slave Point	74		22.6
Watt Mt	102		31.1
Sulphur Point	110		33.5
Pine Point	147		44.8
Muskeg	193		58.8
Keg River	716		218.2
Crinoidal Dol	786		239.6
Lonely Bay	904		275.5
Chinchaga (anhy)	1033		314.9

HYDROGEOLOGIC LOG CDR WOOD BUFFALO L-42 (74-1085 ft.)

Explanations: - depth is in feet (as in core boxes)
 - porosity measurements in cm and mm
 - geology modified after "Schedule of Wells" and "Well History Record on the Drilling and Abandonment of CDR Wood Buffalo L-42"

Slave Point Formation (SPF: 74-102)

74.0	-	81.1	pin point porosity, up to 1.2 mm diameter
77.0	-	80.0	no core
81.1	-	81.8	pin point porosity, up to 3 mm diameter
81.8	-	85.0	no core
85.0	-	87.0	pin point porosity up to 1/4 mm diameter, gypsum/anhydrite as fracture filling (2 samples WEY 86)
87.0	-	89.0	no core
89.0	-	90.2	slightly vuggy, up to 5 mm * 2 mm
90.2	-	93.6	no core
93.6	-	97.0	gypsum, anhydrite in many fractures, up to 2 cm discs, vuggy porosity in some layers, up to 2 cm diameter
97.0	-	102.0	gypsum/anhydrite as fracture filling

Watt Mountain Formation (WM: 102-110)

102.0	-	103.0	gypsum/anhydrite as fracture filling
102.6	-	103.0	elemental sulphur in fractures up to 2 mm thick
103.0	-	104.0	no core
104.0	-	104.4	elemental sulphur in fractures, up to 2 mm thick
109.4	-	109.6	elemental sulphur thinly in fractures

Pine Point Group (PPG: 110 - 806)Sulphur Point Formation (110 - 147)

114.6	-	115.0	no core
117.5	-	120.6	occasional pin point porosity, up to 2 mm diameter
122.8	-	125.5	no core
125.5	-	126.5	occasional pin point porosity, up to 2 mm diameter
135.6	-	145.7	pin point porosity to vuggy porosity, up to 8 mm diameter, some layers with spongy appearance
145.7	-	146.7	no core

Pine Point Formation (147 - 193)

150.5	-	152.5	pin point porosity, up to 1 mm diameter
155.1	-	157.6	no core
157.6	-	164.9	pin point porosity, some layers appear spongy
159.9	-	160.0	vuggy layer with crystals, up to 6 x 3 mm, cavities
164.9	-	165.6	cave

165.6	-	167.6	pin point porosity, up to 1/2 mm diameter
167.6	-	169.3	pin point porosity, up to 2 mm diameter
169.3	-	174.1	cave
174.1	-	175.0	pin point porosity, up to 1 mm diameter
175.0	-	177.3	cave
177.3	-	178.0	pin point porosity, up to 1/4 mm diameter
178.0	-	179.8	cave
179.8	-	182.0	pin point porosity, up to 1 mm diameter, 2 vuggy layers, 2 cm each, up to 5 * 3 mm
182.0	-	182.4	cave
182.4	-	185.9	pin point porosity, up to 1 mm diameter, several vuggy layers, up to 5 mm diameter
185.9	-	190.5	no core, ground to soft to core
190.5	-	193.0	pin point porosity, up to 1 mm diameter, fractures filled with gypsum, up to 2 mm thick

Muskeg Formation (MK: 193 - 716)

193.0	-	204.6	gypsum/anhydrite on many fractures in strongly fractured anhydrite, dense appearance
204.6	-	205.1	cave
205.1	-	213.5	occasional pin point porosity, up to 1 mm diameter
207.0	-	207.2	vuggy layer, 6 * 2 mm
213.5	-	214.5	no core
218.3	-	220.3	no core
229.5	-	244.8	no core
246.5	-	247.0	vertical fracture with gypsum, 2 mm thick
248.2	-	255.3	no core
260.2	-	267.5	no core
274.8	-	275.2	cavities filled with gypsum, up to 1.5 cm * 1 cm
286.5	-	287.0	highly fractured and broken
288.0	-	288.5	cavities filled with gypsum, 8 mm * 4 mm
288.5	-	291.0	no core, cave
296.6	-	297.6	no core, cave
297.6	-	298.8	occasional pin point porosity, up to 1/2 mm diameter
298.8	-	300.2	no core, cave
301.0	-	301.5	fractures filled with gypsum discs, up to 1 cm thick
301.7	-	302.5	no core, cave
304.0	-	304.5	fractures filled with gypsum discs, up to 2 cm thick
309.8	-	311.5	vertical tension fractures filled with gypsum-anhydrite
314.7	-	315.3	s-formed tension fractures filled with gypsum/anhydrite, up to 7 mm thick
320.2	-	321.0	lost core, grinding
324.4			cavity, 5 mm * 3 mm filled with concentric gypsum rings, birds eye
339.6	-	340.1	cavities filled with gypsum, up to 3 * 2 cm
340.6	-	340.9	oblique fracture, filled with gypsum, 3 mm thick
341.9	-	356.8	many horizontal and oblique fractures filled with gypsum and dark anhydrite, anhydrite up to 2.5 cm thick, gypsum up to 2 mm thick

348.4	-	348.9	vertical fracture with gypsum, 2 mm thick
357.0	-	358.0	cavities filled with gypsum, up to 3 * 2.5 cm
358.0	-	358.6	vertical fractures filled with gypsum, up to 3 mm thick
358.6	-	362.2	pin point porosity, up to 1/2 mm diameter
362.2	-	382.0	fractures filled with gypsum and anhydrite (dark)
382.0	-	382.8	cavities in dissolved anhydrite fracture filling, 3 cm * 1 mm openings
382.8	-	385.7	fracture filled with gypsum up to 1 cm and anhydrite up to 3 cm
		385.7	anhydrite disque, partly dissolved (sample)
388.2	-	390.2	fractures with dark anhydrite, dissolved openings in fractures, up to 1 cm * 2 mm openings, some to see through (4 samples WEY 389.7; core analysed for fracture flow)
404.7	-	407.0	fractures filled with dark anhydrite, dissolved openings in fractures up to 2 cm * 1/2 mm
408.1	-	412.3	occasional pin point porosity
414.6	-	415.9	fractures with dark anhydrite, dissolved openings in fractures, up to 2 cm * 1 mm
443.2	-	448.0	fractures with dark anhydrite, dissolved openings in fractures, up to 2 cm * 1 mm
452.0	-	453.0	occasional pin point porosity, up to 1/2 mm diameter
459.0			fracture filled with anhydrite, dissolved opening 1/2 cm * 1/2 mm
460.7	-	462.2	no core, grinding
469.5	-	472.8	fractures filled with dark anhydrite, partly dissolved in spongy structure
484.5	-	485.5	openings filled with gypsum, up to 3 * 1 cm
500.0	-	505.0	vuggy cavities filled with gypsum, up to 4 * 2 cm
505.0	-	506.5	white gypsum
506.7	-	512.0	no core
512.0	-	525.8	vuggy cavities filled with gypsum, up to 10 cm large
531.5	-	534.0	fractures filled with gypsum and anhydrite; round cavities (up to 4 mm diam.) filled with gypsum
534.0	-	535.8	no core
535.8	-	538.4	fracture filled with anhydrite; round cavities up 5 mm diameter filled with gypsum
539.6	-	541.1	cavities filled with gypsum, up to 1.5 cm large
583.0	-	585.4	pin point porosity, up to 1 mm diameter
585.4	-	586.4	vuggy porosity, up to 1 * 0.5 cm
586.0	-	592.6	no core
592.6	-	594.9	pin point porosity, up to 2 mm diameter, 2 fractures filled with gypsum, 3 mm thick
594.9	-	596.2	no core
606.2			small solution cavities in anhydrite parallel to bedding, up to 3 mm * 1 mm openings
609.5			horizontal fractures in anhydrite, filled with gypsum, up to 3 mm thick between some crystals (2 * 1 mm)
622.8			pin point porosity, up to 2 mm diameter
641.0	-	642.0	cave within dolomite

649.7		fractures in dolomite with gypsum, up to 2 mm thick
658	- 661.0	solution openings in dolomite along horizontal bedding and vertical "fractures" up to 5 cm * 3 mm
664.0	- 668.6	no core (grinding, core missing)
670.6	- 671.3	opening on inclined fractures in anhydrite, up to 3 * 1 mm
686.6	- 694.5	no core (impossible to core, very soft)
697.0		0.1 ft. of pin point porosity in a dolomite layer
697.2	- 702.6	no core
702.6	- 704.0	some vugs in dolomite (up to 1/2 cm diameter) and pin point porosity, up to 1 mm diameter
704.0	- 712.0	no core

Upper Keg River Formation (UA: 716 - 806)

716.1	- 717.6	vuggy dolomite, up to 2 cm * 1 cm
716.6	- 721.6	no core (core missing)
721.6	- 722.1	vuggy cavities in dolomite some filled with gypsum, size of filled cavities, 2 * 1 cm some open, 1 * 0.5 cm
722.1	- 723.2	no core (core missing)
724.8	- 736.0	dolomite with open vugs, up to 2 * 2 cm, some vugs filled with gypsum
725.0		vug with calcite crystals, according to HCl-test
736.0	- 738.5	no core (too soft to core)
738.5	- 741.0	dolomite, occasional open vugs, 1 * 1 cm, pin point porosity, up to 1.5 mm diameter
741.0	- 748.0	no core, (too soft to core)
748.4	- 761.5	vuggy dolomite, up to 1 * 1 cm
761.5	- 764.0	no core (too soft to core)
765.0	- 773.5	no core
773.5	- 777.0	vuggy dolomite, up to 0.75 cm diameter
777.0	- 786.6	no core (too soft to core)
786.6	- 789.5	vuggy dolomite, up to 1 * 1 cm
789.5	- 806.0	no core (too soft to core)

Lower Key River Formation (LA: 806 - 1034)

(E-shale estimated at 890)

806.0	- 810.5	dolomite, pin point porosity, up to 1.5 mm diameter, occasional vug, 1 * 0.5 cm
810.5	- 811.9	no core
811.9	- 813.6	dolomite, pin point porosity, up to 2 mm diameter
813.6	- 821.3	no core (too soft to core)
821.3	- 824.5	dolomite, vuggy, up to 3 * 2 cm, fine crystal-lining in some vugs (calcite crystals)
824.5	- 828.3	no core (too soft to core)
828.3	- 834.0	dolomite, with vugs, up to 3 * 2 cm, fine crystal lining (calcite crystals present according to HCl-test, no gypsum)
834.0	- 838.2	no core (too soft to core)
838.2	- 838.7	dolomite, some vugs, up to 1 * 0.3 cm, fine crystal-lining (calcite - crystals)

838.7	-	839.8	no core (too soft to core)
839.8	-	840.4	dolomite
840.4	-	842.1	no core (too soft to core)
842.1	-	842.5	dolomite
842.5	-	851.5	no core (too soft to core)
851.5	-	852.2	dolomite
852.2	-	855.0	no core (too soft to core)
855.0	-	859.0	dolomite, some vugs, up to 2 * 0.8 cm, fine crystal-lining (calcite - crystals, according to HCl-test)
859.0	-	869.8	no core (too soft to core)
869.8	-	872.0	dolomite, pin point porosity, up to 1 mm diameter, occasional vugs, 5 mm * 2 mm with crystal lining (calcite - crystals, no gypsum)
872.0	-	875.0	no core (too soft to core)
875.0	-	876.0	dolomite
876.0	-	885.0	no core (too soft to core)
885.0	-	887.5	dolomite, pin point porosity, up to 1 mm diameter, oblique fractures filled with white calcite (HCl-test)
887.5	-	900.0	no core (too soft to core)
900.0	-	903.0	dolomite, some vuggy porosity, up to 3 * 1 mm, with calcite - crystal-lining
903.5	-	906.0	no core
906.0	-	907.6	dolomite
907.6	-	911.0	no core (too soft to core)
911.0	-	911.1	dolomite
911.1	-	911.9	no core
911.9	-	912.0	dolomite
912.0	-	918.0	no core (too soft to core)
918.0	-	919.8	dolomite, dense
919.8	-	925.5	no core (too soft to core)
925.5	-	929.0	dolomite, dense
929.0	-	936.0	no core
936.0	-	937.5	dolomite, dense
937.5	-	945.0	no core (very blocky, ground does not core)
945.0	-	946.0	dolomite, dense
946.0	-	956.0	no core
956.0	-	956.6	dolomite, dense
956.6	-	963.6	no core
963.6	-	965.6	dolomite, dense, some layers with pin point porosity up to 1/2 diameter, some layers with openings along horizontal bedding, up to 5 * 1 mm
965.6	-	968.2	no core (too soft to core)
968.2	-	968.6	dolomite, dense
968.6	-	972.8	no core (too soft to core)
972.8	-	974.2	dolomite, dense
974.2	-	981.5	no core (too soft to core)
981.5	-	987.3	dolomite, dense
987.3	-	992.9	no core (too soft to core)
992.9	-	995.3	dolomite, some vugs along fossil shells 3 cm * 1 mm with calcite - crystals

995.3 -	1006.0	no core (too soft to core)
1006.0 -	1010.9	dolomite, pin point porosity, up to 1 mm diameter
1010.9 -	1024.4	no core (ground did not core)
1024.4 -	1025.4	dolomite, pin point porosity, some vugs (up to 2 cm * 3 mm) with calcite - crystals
1025.4 -	1032.6	no core (no core retrieved)
1032.6 -	1033.5	dolomite, small vugs (3 * 2 mm) with calcite - crystals

Chinchaga Formation (CH: 1034 - 1085)

1038.6 -	1050.1	no core (no core retrieved)
1050.1 -	1052.1	anhydrite
1052.6 -	1053.0	anhydrite, salty taste (sample 1052.7-9)
1053.0 -	1057.5	no core (too soft to core)
1057.5 -	1058.1	gypsum, salty taste (sample WEY 1057.7)
1058.1 -	1060.0	laminated anhydrite, dolomite
1060.0 -	1064.0	no core (too soft to core)
1065.0 -	1083.0	anhydrite
1069.0 -	1070.0	vertical fracture with white gypsum, up to 1 cm thick
1083.0 -	1085.0	only partial core recovery, some soft material, sample WEY 1084

TESTING OF CORE SAMPLESI. X-ray diffraction analysis

A. Description of samples:

1. Wey 86 fracture filling "anhydrite"
(Slave Point Formation)
2. Wey 86 fracture filling, whitish constituent,
gypsum?
(Slave Point Formation)
3. Wey 389.7 #1 original material (rock) anhydrite?
(Muskeg Formation)
4. Wey 389.7 #1 filling of horizontal fracture
(Muskeg Formation)
5. Wey 389.7 #1 fracture filling near opening
(Muskeg Formation)
6. Wey 389.7 #2 fracture filling near opening
(Muskeg Formation)
7. Wey 1052.7-9 salt/anhydrite?
(Chinchaga Formation)
8. Wey 1057.7 salt?
(Chinchaga Formation)
9. Wey 1084 soft material
(Chinchaga Formation)

B. Results of x-ray diffraction analyses (T. Wong, Clay Mineralogy Laboratory, ISPG, Calgary, April 7, 1982; M.L.C. - mixed layer clay).

1. Wey 86: gypsum - 89%, M.L.C. - 11%
2. Wey 86: gypsum - 36%, M.L.C. - 10%, anhydrite - 54%
3. Wey 389.7 #1: gypsum - 14% , anhydrite - 86%
4. Wey 389.7 #1: gypsum - 46% , M.L.C. - 7%, anhydrite - 47%
5. Wey 389.7 #1: gypsum - 52% , M.L.C. - 8%, anhydrite - 40%
6. Wey 389.7 #2: gypsum - 48% , M.L.C. - 6%, anhydrite - 37%,
quartz - trace.
7. Wey 1052.7 - 9: gypsum - 78%, M.L.C. - 19%, quartz - 3%
8. Wey 1057.7: gypsum - 92%, M.L.C. - 8%
9. Wey 1084: illite - 11%, M.L.C. - 18%, chlorite - 6%,
bassanite - 10%, quartz - 18%, dolomite -
30%, huntite - 7% (sample was dried at 100°C
for 1 hour).

II. Infrared spectrometric analysis (G.P. Michael, ISPG, January, 1983)

Muskeg Formation: sample 534 ft.

The occurrence of gypsum crystals with concentric growth rings imbedded in anhydrite was confirmed.

III. Fracture flow tests

Muskeg Formation: samples 389.7 (1,2).

Appendix 4

K. U. Weyer and W. C. Horwood-Brown, 1982. Data report
for microbiological study at Pine Point, N.W.T.

Data report for microbiological study
at Pine Point, N.W.T.

by

K. U. Weyer & W. C. Horwood-Brown

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March, 1982.

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2. List of sampling locations
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Introduction

Groundwater in the Pine Point region contains significant amounts of H_2S . The occurrence of H_2S poses a safety threat to the drilling of boreholes and the operation of underground mines.

The sulfur and possibly carbon chemistry of the water-rock system is affected by the occurrence of H_2S . Sulfur isotope fractionation studies by Weyer et al. (1979) indicated that microbiological activity was prominently involved in the generation of H_2S .

In consequence a special microbiological study was conducted together with J. B. Bell, Microbiology Laboratories, EPS, Edmonton. The result of the field investigation and laboratory analyses are presented in this report. It forms the basis for a publication in a microbiological journal. It will also become part of the final Pine Point report.

2. List of sampling locations.

SAMPLE NAME	MBIO NUMBER	DATE	UTM COORDINATES		SURF. GEOL.	TITLE
			Z	EASTING NORTHING		
465C	1	SEPT. 17, 1980	11 628 935	6 740 935	MDSUP	S65, WELL NO.1
466C	2	SEPT. 17, 1980	11 628 783	6 740 799	MDSUP	S65, WELL NO.3
467C	3	SEPT. 17, 1980	11 628 837	6 740 558	MDSUP	S65, WELL NO.4
468C	4	SEPT. 17, 1980	11 628 715	6 740 684	MDSUP	S65, WELL NO.2
468.1C		SEPT. 17, 1980	11 638 715	6 740 684	MDSUP	S65, WELL NO.2
469C	5	SEPT. 17, 1980	11 630 790	6 742 013	MDSUP	R61, WELL NO.6
470C	6	SEPT. 17, 1980	11 630 712	6 741 932	MDSUP	R61, WELL NO.5
471C	7	SEPT. 17, 1980	11 630 691	6 741 836	MDSUP	R61, WELL NO.10
472C	8	SEPT. 17, 1980	11 630 654	6 741 725	MDSUP	R61, WELL NO.9
473C	9	SEPT. 17, 1980	11 630 662	6 741 637	MDSUP	R61, WELL NO.8
474C	10	SEPT. 17, 1980	11 630 654	6 741 541	MDSUP	R61, WELL NO.13
475C	11	SEPT. 17, 1980	11 630 742	6 741 542	MDSUP	R61, WELL NO.4
476C	12	SEPT. 17, 1980	11 630 790	6 741 461	MDSUP	R61, WELL NO.14
477C	13	SEPT. 17, 1980	11 630 853	6 741 543	MDSUP	R61, WELL NO.7
478C	14,	SEPT. 17, 1980	11 630 970	6 741 575	MDSUP	R61, WELL NO.3
479C	15	SEPT. 17, 1980	11 630 981	6 742 008	MDSUP	R61, WELL NO.1
480C	16	SEPT. 17, 1980	11 626 048	6 747 794	MDSUP	A70, WELL NO.3
481C	17	SEPT. 17, 1980	11 626 035	6 747 887	MDSUP	A70, WELL NO.4
482C	18	SEPT. 17, 1980	11 626 083	6 747 950	MDSUP	A70, WELL NO.27
483C	19	SEPT. 17, 1980	11 626 104	6 748 044	MDSUP	A70, WELL NO.18
484C	20	SEPT. 17, 1980	11 626 285	6 747 981	MDSUP	A70, WELL NO.22A+32
484.1C		SEPT. 17, 1980	11 626 285	6 747 981	MDSUP	A70, WELL NO.22A+32
485C	21	SEPT. 17, 1980	11 626 180	6 748 085	MDSUP	A70, WELL NO.6
486C	22	SEPT. 17, 1980	11 626 094	6 748 113	MDSUP	A70, WELL NO.30
486.1C		SEPT. 17, 1980	11 626 094	6 748 113	MDSUP	A70, WELL NO.30
487C	23	SEPT. 17, 1980	11 626 257	6 748 161	MDSUP	A70, WELL NO.29
488C	24	SEPT. 17, 1980	11 626 281	6 748 060	MDSUP	A70, WELL NO.26
489C	25	SEPT. 17, 1980	11 626 449	6 747 922	MDSUP	A70, WELL NO.25+31
489.1C		SEPT. 17, 1980	11 626 449	6 747 922	MDSUP	A70, WELL NO.25+31
490C	26	SEPT. 17, 1980	11 626 584	6 748 097	MDSUP	A70, WELL NO.8
491C	27	SEPT. 17, 1980	11 626 457	6 748 049	MDSUP	A70, WELL NO.9
492C	28	SEPT. 17, 1980	11 626 537	6 747 964	MDSUP	A70, WELL NO.10
493C	29	SEPT. 17, 1980	11 626 524	6 747 900	MDSUP	A70, WELL NO.28
493.1C		SEPT. 17, 1980	11 626 524	6 747 900	MDSUP	A70, WELL NO.28
494C	30	SEPT. 17, 1980	11 626 614	6 747 870	MDSUP	A70, WELL NO.11
495C	31	SEPT. 17, 1980	11 626 387	6 747 659	MDSUP	A70, WELL NO.16
496C	32	SEPT. 17, 1980	11 626 429	6 747 663	MDSUP	A70, WELL NO.15
497C	33	SEPT. 17, 1980	11 626 479	6 747 697	MDSUP	A70, WELL NO.14
498C	34	SEPT. 17, 1980	11 626 527	6 747 757	MDSUP	A70, WELL NO.13
499C	35	SEPT. 17, 1980	12 353 300	6 757 000	QAL	HANBURY CREEK
500C	36	SEPT. 17, 1980	12 369 700	6 730 300	QAL	NYARLING RIVER, AT RAPIDS

SAMPLE NAME	MBIO NUMBER	DATE	Z	UTM COORDINATES		SURF. GEOL.	TITLE
501C	37	SEPT. 17, 1980	12 369 900	6 730 600	QAL		LITTLE BUFFALO RIVER, UPSTREAM OF NYARLING RIVER
502C	38	SEPT. 17, 1980	11 613 100	6 717 400	UDHR		BUFFALO RIVER, AT SAMPLE SITE 166
503C	39	SEPT. 17, 1980	11 617 600	6 720 900	MDSP		BUFFALO RIVER, AT SAMPLE SITE 168
504C	40	SEPT. 17, 1980	11 611 800	6 738 600	MDSP		BUFFALO RIVER, AT MELLOR RAPIDS
505C	41	SEPT. 17, 1980	11 612 100	6 738 400	MDSP		BOREHOLE NEAR MELLOR RAPIDS
506C	42	SEPT. 18, 1980	12 350 300	6 765 000	QAL		LITTLE BUFFALO RIVER, AT RESOLUTION HIGHWAY
507C	43	SEPT. 18, 1980	11 614 400	6 732 400	MDSP		BUFFALO RIVER, AT BRIDGE
508C	44	SEPT. 19, 1980	11 633 558	6 751 799	MDP		A55, WELL NO. 9
509C	45	SEPT. 19, 1980	11 633 487	6 751 855	MDP		A55, WELL NO. 10
510C	46	SEPT. 19, 1980	11 633 386	6 751 903	MDP		A55, WELL NO. 8
511C	47	SEPT. 19, 1980	11 633 278	6 751 907	MDP		A55, WELL NO. 11
511.1C		SEPT. 19, 1980	11 633 278	6 751 907	MDP		A55, WELL NO. 11
512C	48	SEPT. 19, 1980	11 633 172	6 751 909	MDP		A55, WELL NO. 7
513C	49	SEPT. 19, 1980	11 632 906	6 751 584	MDP		A55, WELL NO. 6
514C	50	SEPT. 19, 1980	11 632 911	6 751 462	MDP		A55, WELL NO. 15
515C	51	SEPT. 19, 1980	11 632 968	6 751 369	MDP		A55, WELL NO. 5
516C	52	SEPT. 19, 1980	11 633 010	6 751 275	MDP		A55, WELL NO. 19
517C	53	SEPT. 19, 1980	11 633 112	6 751 227	MDP		A55, WELL NO. 4
518C	54	SEPT. 19, 1980	11 633 160	6 751 190	MDP		A55, WELL NO. 18
519C	55	SEPT. 19, 1980	11 633 380	6 751 333	MDP		A55, WELL NO. 2
520C	56	SEPT. 19, 1980	11 633 296	6 751 236	MDP		A55, WELL NO. 3
521C	57	SEPT. 19, 1980	11 626 126	6 747 806	MDSUP		A70, WELL NO. 24
522C	58	SEPT. 19, 1980	11 626 173	6 747 769	MDSUP		A70, WELL NO. 21
523C	59	SEPT. 19, 1980	11 626 286	6 747 722	MDSUP		A70, WELL NO. 20
524C	60	SEPT. 19, 1980	11 626 184	6 747 682	MDSUP		A70, WELL NO. 1
525C	61	SEPT. 19, 1980	11 626 277	6 747 619	MDSUP		A70, WELL NO. 17
526C	62	SEPT. 19, 1980	11 626 786	6 747 370	MDSUP		DISCHARGE CHANNEL R61+S65, AT A70 HAUL ROAD
527C	63	SEPT. 19, 1980	11 628 775	6 741 782	MDSUP		DISCHARGE CHANNEL R61, AT HIGHWAY
528C	64	SEPT. 20, 1980	12 362 200	6 736 500	QAL		BADWATER CREEK
528.1		SEPT. 20, 1980	12 362 200	6 736 500	QAL		BADWATER CREEK, DOWNSTREAM OF CREEK
530C	65	SEPT. 20, 1980	11 646 300	6 723 000	MDNY		HALFWAY SPRING, AT SPRING DOWNSTREAM OF RECORDER
531C	66	SEPT. 20, 1980	11 612 800	6 746 600	MDSP		BOREHOLE, AT SAMPLE SITE 361
532C	67	SEPT. 20, 1980	11 606 400	6 750 700	MDSP		BUFFALO RIVER, CLOSE TO MOUTH
533C	68	SEPT. 20, 1980	11 600 000	6 748 800	MDSP		BOREHOLE NEAR GSL, AT SAMPLE SITE 178
534C	69	SEPT. 20, 1980	11 600 900	6 748 800	MDSP		SPRING CLOSE TO GSL, AT SAMPLE SITE 179
535C	70	SEPT. 20, 1980	11 596 600	6 739 000	UDHR		BOREHOLE, AT SAMPLE SITE 176
536C	71	SEPT. 20, 1980	11 591 000	6 737 300	UDHR		BOREHOLE, AT SAMPLE SITE 175
537C	72	SEPT. 20, 1980	11 629 076	6 741 002	MDSUP		DISCHARGE CHANNEL S65, WITH BLACK PRECIPITATE
538C	73	SEPT. 20, 1980	11 629 166	6 741 006	MDSUP		DISCHARGE CHANNEL S65, WITH YELLOW-GREEN PRECIPITATE
539C	74	SEPT. 20, 1980	11 628 704	6 741 744	MDSUP		DISCHARGE CHANNEL S65, AT HIGHWAY
540C	75	SEPT. 20, 1980	11 633 189	6 752 092	MDP		DISCHARGE CHANNEL A55, AT WOODEN BRIDGE

SAMPLE NAME	MBIO NUMBER	DATE	UTM COORDINATES			SURF. GEOL.	TITLE
			Z	EASTING	NORTHING		
549C		OCT.04,1980	11	623	682	6 741 956	MDSUP K77 PUMPTEST (T:12.30)
550C		OCT.04,1980	11	623	682	6 741 956	MDSUP K77 PUMPTEST (T:16.50-16.55)
551C		OCT.04,1980	11	623	682	6 741 956	MDSUP K77 PUMPTEST (T:21.15-21.40)
553C		OCT.05,1980	11	623	682	6 741 956	MDSUP K77 PUMPTEST (T:15.00-15.30)
555C		OCT.05,1980	11	623	682	6 741 956	MDSUP K77 PUMPTEST (22.20-22.40)
557C		OCT.06,1980	11	623	682	6 741 956	MDSUP K77 PUMPTEST (T:18.20-18.50)
558C		OCT.07,1980	11	623	682	6 741 956	MDSUP K77 PUMPTEST (T:17.15-7.30)

3. Microbiological data

Pine Point Mine Survey - Sept. 17 - Oct. 7, 1980

Sulphur bacteria data summary.

Sample Location	Organic Sulphur Reducers MPN ¹ /100 ml	Thiobacilli MPN/100 ml	Desulfovibrio MPN/100 ml	T/F ferrooxidans MPN/100 ml
465	<20	470	<20	<20
466	<20	3,500	<20	<20
467	<20	<20	<20	<20
468	80	330	<20	<20
469	<20	1,300	20	<20
470	40	1,100	<20	<20
471	20	170	<20	<20
472	<20	3,500	<20	<20
473	<20	130	<20	<20
474	<20	<20	<20	<20
475	<20	20	<20	<20
476	<20	230	<20	<20
477	20	70	<20	<20
478	20	220	<20	<20
479	<20	110	<20	<20
480	<20	<20	<20	<20
481	<20	<20	<20	<20
482	<20	<20	<20	<20
483	<20	<20	<20	<20
484	<20	<20	<20	<20
485	20	20	<20	<20
486	50	1,700	<20	<20
487	<20	110	<20	<20
488	<20	60	<20	<20
489	<20	110,000	<20	<20
490	<20	240,000	<20	<20
491	<20	50	<20	<20
492	<20	<20	<20	<20
493	<20	790	<20	<20
494	<20	310	<20	<20
495	<20	20	<20	<20
496	20	460	<20	<20
497	20	230	<20	<20
498	<20	110	<20	<20
499	5,400	1,700	60	<20
500	13,000	3,500	120	<20
501	13,000	7,900	140	<20
502	13,000	490	790	<20
503	23,000	270	<20	<20
504	2,300	200	130	<20
505	20	20	<20	<20
506	23,000	23,000	340	<20
507	290	230	70	<20
508	<20	80	<20	<20
509	50	20	<20	<20
510	<20	120	<20	<20

Pine Point Mine Survey - Sept. 17 - Oct. 7, 1980

Sulphur bacteria data summary continued

Sample Location	Organic Sulphur Reducers MPN ¹⁾ /100 ml	Thiobacilli MPN/100 ml	Desulfovibrio MPN/100 ml	T/F ferrooxidans MPN/100 ml
511	20	2,300	20	<20
512	80	410	80	<20
513	<20	17,000	<20	<20
514	<20	170	<20	<20
515	<20	490	<20	<20
516	20	1,300	<20	<20
517	<20	20	<20	<20
518	<20	170	<20	<20
519	<20	1,100	<20	<20
520	<20	3,300	<20	<20
521	<20	1,300	<20	<20
522	<20	230	<20	<20
523	20	20	<20	<20
524	20	170	<20	<20
525	80	23,000	<20	<20
526	2,200	79,000	<20	50
527	300	33,000	<20	130
528	23,000	7,900	<20	<20
530	290	49,000	<20	790
531	130,000	18,000	<20	<20
532	7,900	13,000	<20	<20
533	230	3,300	70	40
534	<20	230	<20	<20
535	<20	230	<20	<20
536	<20	<20	<20	<20
537	330	7,000	50	<20
538	230	7,900	<20	<20
539	330	170	<20	<20
540	2,300	13,000	<20	1,300
549	<20	1,000	<20	<20
550	<20	380	<20	<20
551	20	140	<20	<20
553	130	700	<20	<20
555	20	70	<20	<20
557	20	110	<20	<20
558	20	70	<20	<20

1) MPN = Most probable number

4. Chemical and isotope data

Explanation of acronyms used in table

POINTR - pointer to sample taken at same location

CLASS - classification
 B - Borehole
 C - Creek
 D - Discharge channel or sump pump
 H - Sinkhole
 L - lake
 P - pool, spring-lake
 S - Spring

RDU - R - Recharge
 D - Discharge
 U - Unclassified

ELEV - Surface elevation (feet)

SGEOL - Surface Geology
 MDNY - Nyarling Formation
 MDP - Presqu'ile Formation
 MDSP - Slave Point Formation
 MDSUP - Sulphur Point Formation
 QAL - Quaternary
 UDHR - Hay River Formation

BELEV - elevation at bottom of borehole (feet)

F-TEMP - field temperature (°C)

F-COND - field conductivity (µmho/cm)

L-COND - lab conductivity (µmho/cm)

DENS - density (g/cm³)

F-PH - field pH

L-PH - lab pH

EHMC - Eh, measured in field with calomel electrode (volts)

M-TDS - Total dissolved solids, measured in lab (mg/l)

C-TDS - Total dissolved solids, calculated from analysed chemical constituents (mg/l)

EPMCAT - sum of cations Ca, Mg, Na, K (epm)

EPMAN - sum of anions - Cl, SO₄, HCO₃ (epm)

CAT/AN - EPMCAT/EPMAN

BLDIF% - Balance difference in %

$$\frac{| \text{EPMAN} - \text{EPMCAT} |}{\text{EPMAN} + \text{EPMCAT}} * 100$$

DELD δD (°/‰ SMOW)

DELSO4 $\delta^{34}S_{SO_4}$ (°/‰)

DELHS $\delta^{34}S_{H_2S}$ (°/‰)

Note: Additional trace metal analyses (identified by sample XXX.1) were conducted with unfiltered and acidified water. Normal analyses procedure for trace metals is on water filtered with 0.45 micron filter and acidified.

SAMPLES COLLECTED FROM PINE POINT AREA, SEPT.17-OCT.7,1980

CHEMICAL CONSTITUENTS IN MG/L

	465C	466C	467C	468C	468.1C	469C	470C
POINTR	429C					62	63
CLASS	B	B	B	B	B	B	B
RDU	D	D	D	D	D	D	D
ELEV	772	775	774	772	772	772	772
SGEOL	MDSUP	MDSUP	MDSUP	MDSUP	MDSUP	MDSUP	MDSUP
BELEV	322	320	354	422	422	303	311
F-TEMP	4.40	3.85	3.70	4.40	4.40	5.25	5.20
F-COND	2400.	2350.	2250.	2400.	2400.	2425.	2500.
L-COND	2557.	2613.	2390.	2446.		2613.	2613.
DENS							
F-PH	7.0	6.9	6.99	7.20	7.20		
L-PH	6.97	6.94	6.99	6.88		6.88	7.04
EHMC	-0.205	-0.205	-0.200	-0.220	-0.220		
M-TDS	1903.	2073.	1947.	2173.		2083.	2190.
C-TDS	1921.	2120.	1993.	2119.		2136.	2204.
EPMCAT	33.38	31.50	31.21	33.23		34.56	35.52
EPMAN	28.44	33.43	30.69	32.49		32.73	33.72
CAT/AN	1.17	0.94	1.02	1.02		1.06	1.05
BLDIF%	7.99	2.97	0.84	1.12		2.72	2.60
CA	442.	428.	428.	452.		424.	450.
MG	125.	113.	111.	118.		148.	144.
NA	22.5	18.0	15.5	20.8		26.5	26.8
K	2.5	2.6	2.1	2.5		3.1	2.2
CL	22.0	17.0	20.0	21.5		26.5	27.5
SO4	1100.	1300.	1200.	1300.		1300.	1350.
HCO3	300.	359.	314.	294.		300.	295.
SIO2	10.0	10.0	10.0	10.5		10.5	10.0
TIC	51.5	56.5	56.5	54.5		55.0	51.5
TOC	4.8	4.8	4.8	4.5		3.8	4.0
H2S	16.5	15.9	18.1	16.2		17.5	16.5
AL	0.12	0.12	0.12	0.18	0.12		
AS	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002		
CD							
CU							
FE	0.10	0.06	0.02	0.51	0.60		
MN	0.009	< 0.001	< 0.001	< 0.001	0.008		
NI							
PB	0.004	0.003	0.006	< 0.002	0.003		
ZN	0.002	< 0.001	< 0.001	< 0.001	< 0.001		
DELD							
DELSO4	19.9	20.1	20.0	19.9		19.6	19.9
DELHS	-23.5	-22.0	-21.7	-22.3		-25.0	-23.6

SAMPLES COLLECTED FROM PINE POINT AREA, SEPT.17-OCT.7,1980

CHEMICAL CONSTITUENTS IN MG/L

	471C	472C	473C	474C	475C	476C	477C
POINTR	64	65	57	58	66	55	56
CLASS	B	B	B	B	B	B	B
RDU	D	D	D	D	D	D	D
ELEV	770	773	773	773	775	774	775
SGEOL	MDSUP	MDSUP	MDSUP	MDSUP	MDSUP	MDSUP	MDSUP
BELEV	320	308	321	273	314	274	323
F-TEMP	4.75	5.20	5.05	4.75	5.00	4.50	4.80
F-COND	2575.	2500.	2425.	2400.	2425.	2250.	2450.
L-COND	2613.	2557.	2613.	2446.	2446.	2279.	2502.
DENS							
F-PH							
L-PH	7.02	6.95	7.08	7.13	7.02	6.95	7.02
EHMC							
M-TDS	2270.	2241.	2236.	2034.	2274.	2117.	2046.
C-TDS	2304.	2403.	2256.	2083.	2287.	2143.	2081.
EPMCAT	35.48	35.80	35.36	33.63	34.23	32.22	34.17
EPMAN	35.71	37.58	34.65	31.60	35.58	33.32	31.45
CAT/AN	0.99	0.95	1.02	1.06	0.96	0.97	1.09
BLDIF%	0.32	2.42	1.00	3.11	1.93	1.68	4.15
CA	455.	465.	465.	460.	460.	440.	446.
MG	141.	139.	135.	120.	126.	116.	133.
NA	25.8	25.5	22.8	17.3	19.8	15.3	21.0
K	2.4	2.4	2.3	2.1	2.2	2.2	2.4
CL	25.5	25.0	21.5	21.0	18.0	11.0	18.5
SO4	1450.	1550.	1400.	1250.	1450.	1350.	1250.
HCO3	293.	281.	299.	304.	298.	299.	299.
SIO2	9.5	9.5	9.5	9.5	10.0	10.0	10.0
TIC	51.0	49.0	55.0	58.0	53.5	54.5	53.0
TOC	3.8	4.0	4.3	5.0	4.5	6.3	4.0
H2S	19.1	17.5	20.5	20.7	21.8	19.1	20.5
AL							
AS							
CD							
CU							
FE							
MN							
NI							
PB							
ZN							
DELD							
DELSO4	19.9	19.6	19.9	19.8	19.7	19.9	19.7
DELHS	-23.8	-23.0	-22.6	-20.7	-21.3	-20.0	-21.7

SAMPLES COLLECTED FROM PINE POINT AREA, SEPT.17-OCT.7,1980

CHEMICAL CONSTITUENTS IN MG/L

	478C	479C	480C	481C	482C	483C	484C
POINTR	67	54	423C	422C		421C	
CLASS	B	B	B	B	B	B	B
RDU	D	D	D	D	D	D	D
ELEV	775	773	605	607	603	610	552
SGEOL	MDSUP	MDSUP	MDSUP	MDSUP	MDSUP	MDSUP	MDSUP
BELEV	314	312	96	107	295	160	125
F-TEMP	4.30	5.20	3.45	4.0	3.2	3.6	3.0
F-COND		2450.	2580.	4000.	3450.	4000.	3100.
L-COND	2335.	2557.	2780.	4114.	3669.	4114.	3224.
DENS				1.003		1.003	
F-PH					6.91		6.9
L-PH	7.01	6.98	7.05	7.09	7.11	7.11	7.28
EHMC					-0.225		-0.250
M-TDS	2043.	2106.	2397.	3320.	2773.	3173.	2569.
C-TDS	2085.	2127.	2450.	3366.	2837.	3242.	2636.
EPMCAT	31.51	34.81	37.11	53.02	46.40	52.95	42.64
EPMAN	32.64	32.50	38.22	53.27	44.37	50.57	41.04
CAT/AN	0.97	1.07	0.97	1.00	1.05	1.05	1.04
BLDIF%	1.77	3.43	1.47	0.24	2.24	2.30	1.91
CA	398.	423.	416.	453.	422.	435.	411.
MG	130.	152.	174.	199.	194.	201.	200.
NA	20.5	26.0	45.	324.	213.	339.	128.
K	2.7	2.7	3.5	5.2	5.0	6.0	4.6
CL	13.0	24.0	55.	476.	300.	446.	175.
SO4	1300.	1300.	1500.	1655.	1450.	1555.	1450.
HCO3	318.	290.	332.	338.	349.	352.	361.
SIO2	10.5	10.0	9.5	10.5	10.0	10.0	9.0
TIC	58.5	53.5	62.0	62.2	63.5	65.2	68.5
TOC	4.8	4.0	3.8	4.0	4.3	4.9	3.3
H2S	19.7	15.4	47.8	40.0	33.5	38.4	41.5
AL					0.18		0.12
AS					< 0.0002		< 0.0002
CD							
CU							
FE					0.04		0.34
MN					< 0.001		< 0.001
NI							
PB					0.003		0.003
ZN					< 0.001		< 0.001
DELD							
DEL SO4		19.6	20.0	21.3	21.5	22.2	22.7
DEL HS		-25.7	-26.4	-28.8	-27.6	-32.3	-31.5

SAMPLES COLLECTED FROM PINE POINT AREA, SEPT.17-OCT.7,1980

CHEMICAL CONSTITUENTS IN MG/L

	484.1C	485C	486C	486.1C	487C	488C	489C
POINTR		420C					
CLASS	B	B	B	B	B	B	B
RDU	D	D	D	D	D	D	D
ELEV	552	601	601	601	600	601	497
SGEOL	MDSUP	MDSUP	MDSUP	MDSUP	MDSUP	MDSUP	MDSUP
BELEV	125	101	96	96	43	176	152
F-TEMP	3.0	3.05	3.9	3.9	3.15	3.6	3.5
F-COND	3100.	3600.	3700.	3700.	3700.	6500.	2790.
L-COND		3669.	3780.		3780.	6338.	2835.
DENS						1.004	
F-PH	6.9		6.99	6.99	6.90	6.90	6.99
L-PH		7.11	7.05		7.05	7.00	7.10
EHMC	-0.250		-0.240	-0.240	-0.270	-0.260	-0.270
M-TDS		2918.	2999.		2909.	4277.	2537.
C-TDS		2987.	3063.		2976.	4301.	2575.
EPMCAT		48.58	49.92		49.16	74.06	39.15
EPMAN		46.90	47.66		46.53	68.69	40.75
CAT/AN		1.04	1.05		1.06	1.08	0.96
BLDIF%		1.77	2.31		2.75	3.76	2.01
CA		422.	428.		416.	457.	398.
MG		207.	200.		215.	237.	192.
NA		238.	275.		243.	733.	78.
K		6.0	6.2		6.1	8.0	4.1
CL		310.	350.		335.	1205.	95.
SO4		1550.	1550.		1500.	1406.	1550.
HCO3		359.	337.		357.	349.	354.
SIO2		9.2	9.2		9.0	10.0	9.0
TIC		65.5	59.0		65.0	62.7	64.0
TOC		3.5	3.5		3.0	3.5	3.3
H2S		29.2	41.5		37.2	36.2	34.3
AL	0.12		0.12	0.12	0.12	0.18	0.12
AS	< 0.0002		< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002
CD							
CU							
FE	0.41		1.18	1.32	0.03	0.02	1.90
MN	0.022		0.029	0.029	< 0.001	< 0.001	0.022
NI							
PB	0.003		< 0.002	0.002	0.002	0.004	< 0.002
ZN	< 0.001		< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
DELD					-169.3	-171.4	-170.5
DELSO4		22.4	22.6		23.1	22.4	22.1
DELHS		-33.1	-33.8		-32.5	-32.6	-29.1

SAMPLES COLLECTED FROM PINE POINT AREA, SEPT.17-OCT.7,1980

CHEMICAL CONSTITUENTS IN MG/L

	489.1C	490C	491C	492C	493C	493.1C	494C
POINTR		419C	418C	417C			415C
CLASS	B	B	B	B	B	B	B
RDU	D	D	D	D	D	D	D
ELEV	497	603	603	605	607	607	611
SGEOL	MDSUP	MDSUP	MDSUP	MDSUP	MDSUP	MDSUP	MDSUP
BELEV	152	130	153	106	149	149	159
F-TEMP	3.5	2.80	2.80	3.80	2.8	2.8	2.8
F-COND	2790.	3200.	2790.	3100.	2600.	2600.	2590.
L-COND		3336.	2891.	3224.	2668.		2668.
DENS							
F-PH	6.99				6.90	6.90	
L-PH		7.05	7.09	7.18	7.06		7.16
EHMC	-0.270				-0.250	-0.250	
M-TDS		2580.	2339.	2506.	2298.		2176.
C-TDS		2649.	2521.	2565.	2343.		2208.
EPMCAT		43.18	43.65	41.62	37.41		36.06
EPMAN		41.25	37.22	39.84	36.37		34.00
CAT/AN		1.05	1.17	1.04	1.03		1.06
BLDIF%		2.29	7.95	2.19	1.41		2.94
CA		416.	402.	411.	395.		390.
MG		213.	202.	185.	185.		178.
NA		110.	158.	133.	55.		43.
K		4.9	4.1	4.4	3.6		3.5
CL		180.	70.	175.	55.		40.0
SO4		1450.	1400.	1400.	1400.		1300.
HCO3		365.	372.	351.	346.		354.
SIO2		9.0	8.5	10.0	9.0		9.0
TIC		67.5	68.0	62.0	61.0		62.0
TOC		3.3	2.5	2.8	2.8		2.8
H2S		46.8	53.2	36.1	31.9		31.9
AL	0.06				0.30	0.30	
AS	< 0.0002				< 0.0002	< 0.0002	
CD							
CU							
FE	2.16				0.80	0.99	
MN	0.041				< 0.001	0.007	
NI							
PB	< 0.002				0.002	< 0.002	
ZN	< 0.001				< 0.001	< 0.001	
DELD		-163.1	-168.1	-169.9	-170.2		-169.3
DELSO4		23.3	23.2	21.7	22.9		22.1
DELHS		-33.4	-32.7	-26.2	-26.2		-26.6

SAMPLES COLLECTED FROM PINE POINT AREA, SEPT.17-OCT.7,1980

CHEMICAL CONSTITUENTS IN MG/L

	495C	496C	497C	498C	499C	500C	501C
POINTR		384C	385C	416C		529C	137
CLASS	B	B	B	B	C	R	R
RDU	D	D	D	D	D	D	D
ELEV	611	611	611	611	518	544	539
SGEOL	MDSUP	MDSUP	MDSUP	MDSUP	QAL	QAL	QAL
BELEV	159	161	161	159			
F-TEMP	3.6	2.9	2.9	2.7	7.0	7.5	11.0
F-COND	2600.	2570.	2500.	2520.	960.	5300.	7000.
L-COND	2780.	2502.	2613.	2557.	956.	5337.	6449.
DENS						1.003	1.004
F-PH	6.90						
L-PH	7.00	7.16	6.92	7.08	7.67	8.01	8.00
EHMC	-0.270						
M-TDS	2269.	2170.	2179.	2173.	683.	3783.	4266.
C-TDS	2317.	2219.	2230.	2241.	719.	3780.	4299.
EPMCAT	37.39	36.01	35.61	35.61	12.25	59.83	68.22
EPMAN	35.77	34.15	34.28	34.76	11.68	61.18	69.86
CAT/AN	1.05	1.05	1.04	1.02	1.05	0.98	0.98
BLDIF%	2.22	2.66	1.91	1.20	2.37	1.12	1.13
CA	416.	405.	410.	398.	129.	539.	570.
MG	180.	175.	167.	173.	51.0	110.	61.2
NA	40.	30.5	30.8	33.	34.0	552.	803.
K	3.5	3.3	3.2	3.3	5.3	2.8	3.0
CL	40.0	30.0	30.0	32.0	9.0	953.	1355.
SO4	1400.	1350.	1350.	1350.	270.	1505.	1406.
HCO3	335.	317.	325.	351.	354.	194.	162.
SIO2	9.5	9.2	9.2	9.0	7.8	3.5	3.0
TIC	60.5	60.0	58.5	62.5	66.0	30.1	24.1
TOC	3.3	3.0	3.3	3.0	29.8	11.8	12.3
H2S	26.4	25.8	34.5	31.9		< 0.1	< 0.1
AL	0.24						
AS	< 0.0002						
CD							
CU							
FE	0.03						
MN	0.007						
NI							
PB	0.002						
ZN	< 0.001						
DELD	-166.5	-171.7	-157.5	-166.1	-135.1	-152.8	-148.0
DEL SO4	21.2	20.7	20.9	21.1	27.4	20.2	19.3
DELHS	-26.0	-22.9	-22.1	-23.3			

SAMPLES COLLECTED FROM PINE POINT AREA, SEPT.17-OCT.7,1980

CHEMICAL CONSTITUENTS IN MG/L

	502C	503C	504C	505C	506C	507C	508C
POINTR	166	25	173	79	554C	37	
CLASS	R	R	R	B	R	R	B
RDU	R	R	D	D	D	R	D
ELEV	805	708	605	620	513	690	612
SGEOL	UDHR	MDSP	MDSP	MDSP	QAL	MDSP	MDP
BELEV							112
F-TEMP	8.5		8.0	5.5	8.5	9.6	2.5
F-COND	280.	295.		3100.	6500.	315.	2200.
L-COND	272.	266.	294.	3071.	6033.	279.	2468.
DENS					1.004		
F-PH					7.7	8.2	7.0
L-PH	7.85	7.96	7.95	7.29	7.71	8.21	6.96
EHMC					0.170	0.175	-0.190
M-TDS	163.	164.	173.	2806.	3946.	179.	1779.
C-TDS	172.	173.	185.	2873.	3951.	177.	1755.
EPMCAT	2.89	2.86	3.20	42.31	65.34	3.02	29.54
EPMAN	2.92	2.95	3.10	45.11	61.63	3.00	27.15
CAT/AN	0.99	0.97	1.03	0.94	1.06	1.01	1.09
BLDIF%	0.45	1.53	1.62	3.20	2.92	0.29	4.22
CA	34.5	34.0	39.0	545.	542.	35.0	290.
MG	9.8	9.6	10.5	155.	80.3	9.9	142.
NA	7.8	8.0	8.3	53.	733.	9.8	75.
K	1.1	1.2	1.2	2.4	2.9	1.3	5.0
CL	4.5	4.5	4.5	60.	1004.	4.5	70.
SO4	35.	35.	42.	1750.	1506.	35.	950.
HCO3	126.	128.	128.	426.	135.	131.	329.
SIO2	3.4	3.4	3.0	10.0	2.0	3.0	10.5
TIC	18.5	18.0	18.0	77.5	19.6	18.0	62.0
TOC	15.3	15.0	15.5	3.5	11.3	15.8	2.3
H2S	< 0.1	< 0.1	< 0.1	41.5	< 0.1	< 0.1	15.2
AL							0.30
AS							< 0.0002
CD							
CU							
FE							< 0.01
MN							< 0.001
NI							
PB							0.005
ZN							< 0.001
DELD	-127.2	-128.2	-129.6	-170.2	-149.5	-129.1	-172.9
DELSO4	-7.3	-9.8	-7.4	26.5	20.7	-9.3	18.6
DELHS				-11.2			-24.4

SAMPLES COLLECTED FROM PINE POINT AREA, SEPT.17-OCT.7,1980

CHEMICAL CONSTITUENTS IN MG/L

	509C	510C	511C	511.1C	512C	513C	514C
POINTR							
CLASS	B	B	B	B	B	B	B
RDU	D	D	D	D	D	D	D
ELEV	612	604	609	609	604	606	613
SGEOL	MDP	MDP	MDP	MDP	MDP	MDP	MDP
BELEV	112	104	109	109	104	106	113
F-TEMP	3.1	3.1	3.1	3.1	3.1	2.7	2.2
F-COND	2400.	2620.	3600.	3600.	2620.	2450.	2450.
L-COND	2413.	2523.	3620.		2687.	2523.	2411.
DENS							
F-PH	7.0	7.0	7.10	7.10	7.05	7.00	6.93
L-PH	6.93	6.98	6.98		7.11	6.98	7.01
EHMC	-0.200	-0.200	-0.250	-0.250	-0.245	-0.210	-0.180
M-TDS	1950.	1963.	2813.		2288.	2240.	2000.
C-TDS	1945.	1965.	2868.		2358.	2280.	2030.
EPMCAT	31.81	32.35	44.17		34.33	33.30	33.10
EPMAN	30.58	31.32	46.66		38.03	36.81	31.69
CAT/AN	1.04	1.03	0.95		0.90	0.90	1.04
BLDIF%	1.97	1.62	2.74		5.11	5.01	2.17
CA	302.	258.	320.		295.	328.	332.
MG	150.	132.	178.		161.	170.	166.
NA	98.	195.	308.		143.	65.	63.
K	5.7	5.6	6.8		5.9	5.1	5.4
CL	125.	255.	435.		180.	60.	60.
SO4	1050.	900.	1400.		1300.	1450.	1200.
HCO3	317.	329.	320.		359.	301.	306.
SIO2	10.5	10.5	10.0		10.0	9.7	9.7
TIC	59.5	64.5	59.5		67.0	55.5	57.5
TOC	2.5	2.1	2.3		2.3	2.0	1.8
H2S	13.6	10.9	16.3		47.8	11.7	10.4
AL	0.36	0.36	0.24	0.30	0.24	0.24	0.24
AS	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002
CD							
CU							
FE	0.13	0.07	1.20	1.36	0.04	0.02	0.03
MN	< 0.001	< 0.001	0.022	0.029	0.007	0.008	< 0.001
NI							
PB	< 0.002	0.003	< 0.002	< 0.002	0.003	0.002	< 0.002
ZN	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
DELD	-170.1	-170.6	-169.0		-174.9	-171.5	-172.2
DEL SO4	18.9	21.5	21.5		22.9	21.3	20.9
DELHS	-22.1	-27.4	-23.4		-21.3	-31.8	-31.4

SAMPLES COLLECTED FROM PINE POINT AREA, SEPT.17-OCT.7,1980

CHEMICAL CONSTITUENTS IN MG/L

	515C	516C	517C	518C	519C	520C	521C
POINTR							
CLASS	B	B	B	B	B	B	I
RDU	D	D	D	D	D	D	I
ELEV	614	615	615	615	617	618	607
SGEOL	MDP	MDP	MDP	MDP	MDP	MDP	MDSUI
BELEV	294	115	108	115	187	111	127
F-TEMP	2.6	2.5	2.7	2.5	2.55	3.0	4.0
F-COND	2450.	2450.	2450.	2300.	2220.	2190.	2850.
L-COND	2523.	2413.	2301.	2139.	2139.	2194.	2907.
DENS							
F-PH	6.98	7.0	7.15	7.0	7.0	7.1	6.95
L-PH	7.01	7.01	6.98	7.04	7.04	7.02	7.00
EHMC	-0.180	-0.198	-0.170	-0.170	-0.170	-0.165	-0.260
M-TDS	1993.	1918.	1980.	1791.	1746.	1721.	2377.
C-TDS	2019.	1955.	2008.	1814.	1763.	1738.	2424.
EPMCAT	32.72	32.30	32.47	30.17	29.11	27.95	38.49
EPMAN	31.58	30.34	31.42	28.30	27.65	27.52	37.89
CAT/AN	1.04	1.06	1.03	1.07	1.05	1.02	1.02
BLDIF%	1.77	3.14	1.65	3.19	2.57	0.76	0.78
CA	327.	330.	330.	302.	291.	288.	420.
MG	166.	163.	164.	154.	145.	137.	176.
NA	60.	53.	55.	53.	58.	50.	68.
K	5.4	4.9	5.0	5.0	5.4	5.2	3.9
CL	60.	50.	55.	50.	55.	50.	120.
SO4	1200.	1150.	1200.	1050.	1000.	1000.	1400.
HCO3	299.	304.	298.	307.	322.	323.	327.
SIO2	9.7	9.0	9.7	10.0	10.3	10.5	10.3
TIC	56.5	56.5	56.5	55.0	59.0	59.5	58.5
TOC	2.0	2.3	2.0	1.5	1.3	1.3	2.5
H2S	10.9	12.0	10.1	5.1	4.3	3.3	29.2
AL	0.24	0.30	0.18	0.24	0.36	0.24	0.30
AS	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002
CD							
CU							
FE	0.02	0.03	0.02	0.02	< 0.01	0.01	0.01
MN	< 0.001	0.008	< 0.001	< 0.001	0.016	< 0.001	0.007
NI							
PB	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	0.003
ZN	< 0.001	< 0.001	< 0.001	0.004	< 0.001	< 0.001	< 0.001
DELD	-166.3	-176.4	-173.6	-155.3	-163.0	-169.2	-165.1
DELSO4	21.9	21.3	21.7	21.5	21.7	21.3	20.9
DELHS	-28.6	-29.5	-28.7	-28.5	-30.4	-30.3	-25.2

SAMPLES COLLECTED FROM PINE POINT AREA, SEPT.17-OCT.7,1980

CHEMICAL CONSTITUENTS IN MG/L

	522C	523C	524C	525C	526C	527C	528C
POINTR	435C	434C	424C	426C			13
CLASS	B	B	B	B	D	D	
RDU	D	D	D	D	D	D	
ELEV	610	609	608	610	600	765	55
SGEOL	MDSUP	MDSUP	MDSUP	MDSUP	MDSUP	MDSUP	QA
BELEV	160	159	178	160			
F-TEMP	4.05	3.8	3.9	3.7	6.1		4.7
F-COND	2700.	2750.	2700.	2650.	2650.		11000
L-COND	2632.	2742.	2687.	2523.	2413.	2413.	10970
DENS							1.000
F-PH							
L-PH	7.01	7.05	7.06	6.97	7.64	7.24	7.9
EHMC							
M-TDS	2230.	2275.	2290.	2284.	2140.	2344.	7060.
C-TDS	2275.	2306.	2378.	2342.	2158.	2404.	7104.
EPMCAT	36.98	37.20	36.42	36.51	34.02	34.56	117.10
EPMAN	35.02	35.70	37.41	36.50	33.47	37.54	112.2
CAT/AN	1.06	1.04	0.97	1.00	1.02	0.92	1.04
BLDIF%	2.73	2.06	1.35	0.02	0.82	4.13	2.11
CA	420.	410.	417.	420.	446.	450.	509.
MG	170.	176.	166.	168.	130.	134.	254.
NA	45.	50.	43.	38.	23.3	23.5	1589.
K	3.5	3.6	3.4	3.3	2.5	2.4	96.
CL	55.	75.	65.	40.	20.	20.	2049.
SO4	1350.	1350.	1450.	1450.	1350.	1550.	2465.
HCO3	327.	334.	329.	316.	293.	287.	234.
SIO2	10.3	10.3	10.0	10.0	10.3	10.3	2.0
TIC	59.5	58.5	61.0	57.0	51.5	49.5	37.2
TOC	2.5	2.3	2.8	2.8	3.8	3.0	9.6
H2S	25.0	30.3	25.8	22.6	< 0.1	41.5	< 0.1
AL							
AS							
CD							
CU							
FE							
MN							
NI							
PB							
ZN							
DELD	-163.0	-168.1	-167.4	-169.3	-166.1	-168.4	-167.4
DEL SO4	21.2	21.4	20.6	21.2	19.0	19.6	20.3
DEL HS	-24.3	-24.5	-22.9	-25.2		-19.6	

SAMPLES COLLECTED FROM PINE POINT AREA, SEPT.17-OCT.7,1980

CHEMICAL CONSTITUENTS IN MG/L

	528.1	530C	531C	532C	533C	534C	535C
POINTR	139	577C	361C	28	178	179	176
CLASS	C	P	B	R	B	B	B
RDU	D	D	D	D	D	D	D
ELEV	553	730	590	515	525	525	580
SGEOL	QAL	MDNY	MDSP	MDSP	MDSP	MDSP	UDHR
BELEV							
F-TEMP	4.75	3.5	6.7	7.2	12.1	4.0	6.0
F-COND	11000.	2320.		420.	12000.	14000.	3750.
L-COND	10970.	2523.	6252.	427.	12067.	14809.	3400.
DENS	1.006		1.003		1.010	1.011	1.002
F-PH							
L-PH	7.87	7.01	7.07	8.01	6.81	6.76	6.90
EHMC							
M-TDS	7193.	2291.	4610.	249.	8493.	9850.	3191.
C-TDS	7227.	2321.	4621.	255.	8748.	10168.	3430.
EPMCAT	118.67	34.18	71.94	4.41	132.44	164.31	48.45
EPMAN	114.51	35.92	75.37	4.19	144.90	163.86	52.69
CAT/AN	1.04	0.95	0.95	1.05	0.91	1.00	0.92
BLDIF%	1.78	2.48	2.33	2.55	4.49	0.14	4.19
CA	513.	542.	461.	41.1	697.	754.	516.
MG	260.	73.0	225.	12.5	267.	287.	212.
NA	1610.	24.8	702.	29.8	1768.	2406.	120.
K	96.	1.9	5.2	1.5	8.2	9.7	4.0
CL	2091.	20.	1053.	30.	3131.	3741.	170.
SO4	2515.	1450.	1956.	60.	2374.	2477.	1904.
HCO3	235.	315.	316.	128.	527.	525.	510.
SIO2	1.7	9.5	10.0	3.0	10.4	10.4	9.5
TIC	37.2	59.0	50.2	18.0	89.9	91.0	89.2
TOC	9.9	4.0	5.0	12.8	3.0	2.8	4.0
H2S		10.9	19.2	0.1	178.	168.	187.
AL							
AS							
CD							
CU							
FE							
MN							
NI							
PB							
ZN							
DELD		-159.6	-155.1	-122.5	-165.0	-166.2	-168.8
DELSO4		20.4	26.5	32.4	30.5	32.2	31.5
DELHS		-25.7	-27.1		-22.8	-23.6	-23.3

SAMPLES COLLECTED FROM PINE POINT AREA, SEPT.17-OCT.7,1980

CHEMICAL CONSTITUENTS IN MG/L

	536C	537C	538C	539C	540C	549C	550C
POINTR	175					550C	551C
CLASS	B	D	D	D	D	B	B
RDU	D	D	D	D	D	D	D
ELEV	570	768	768	765	600	686	686
SGEOL	UDHR	MDSUP	MDSUP	MDSUP	MDP	MDSUP	MDSUP
BELEV						296	296
F-TEMP	6.3	3.9	3.8	4.0	2.8	3.8	3.8
F-COND	3600.	2350.	2325.	2400.	2400.	1224.	1334.
L-COND	3510.	2358.	2358.	2413.	2413.	1420.	1410.
DENS	1.002						
F-PH						6.99	6.85
L-PH	6.84	7.07	7.08	7.24	7.57	7.36	7.66
EHMC						-0.230	-0.240
M-TDS	3188.	2216.	2222.	2227.	2063.	960.	1001.
C-TDS	3404.	2240.	2270.	2279.	2097.	1034.	1065.
EPMCAT	48.24	32.26	32.76	32.61	31.64	16.51	16.68
EPMAN	53.37	35.45	35.92	36.00	33.89	16.41	17.01
CAT/AN	0.90	0.91	0.91	0.91	0.93	1.01	0.98
BLDIF%	5.05	4.70	4.60	4.95	3.43	0.30	1.00
CA	497.	440.	445.	445.	302.	173.	180.
MG	198.	114.	116.	115.	156.	90.0	86.0
NA	163.	20.0	21.8	20.3	83.	9.8	13.0
K	4.5	2.4	2.5	2.4	5.2	1.8	2.2
CL	301.	15.	30.	30.	90.	6.3	5.9
SO4	1754.	1450.	1450.	1450.	1250.	408.	440.
HCO3	518.	295.	298.	303.	325.	472.	469.
SIO2	10.0	10.5	10.7	9.0	10.3	12.7	12.1
TIC	88.2	56.0	54.0	55.0	58.0	79.5	79.5
TOC	3.8	4.5	4.0	4.5	1.8	2.3	3.3
H2S	166.	10.9	15.4	25.0	5.8	49.4	44.1
AL						0.11	< 0.01
AS						< 0.0002	< 0.0002
CD						< 0.001	0.001
CU						< 0.001	< 0.001
FE						0.01	< 0.01
MN						0.008	0.018
NI						0.003	< 0.001
PB						< 0.002	< 0.002
ZN						< 0.001	0.002
DELD	-144.2	-166.1	-167.8	-165.1	-169.3	-164.6	-151.8
DEL SO4	33.0	20.0	20.2	20.5	18.8	23.0	23.5
DEL HS	-24.8	-23.3	-27.6	-18.9	-25.7	-10.3	-9.6

SAMPLES COLLECTED FROM PINE POINT AREA, SEPT.17-OCT.7,1980

CHEMICAL CONSTITUENTS IN MG/L

	551C	553C	555C	557C	558C
POINTR	552C	555C	556C	558C	561C
CLASS	B	B	B	B	B
RDU	D	D	D	D	D
ELEV	686	686	686	686	686
SGEOL	MDSUP	MDSUP	MDSUP	MDSUP	MDSUP
BELEV	296	296	296	296	296
F-TEMP	3.6	3.7	3.6	3.8	3.6
F-COND	1306.	1258.	1334.	1272.	1272.
L-COND	1410.	1460.	1490.	1500.	1550.
DENS					
F-PH	6.99	6.81	6.72	6.85	
L-PH	7.62	7.43	7.43	7.42	7.41
EHMC	-0.230	-0.240	-0.240	-0.255	
M-TDS	1048.	1048.	1106.	1131.	1129.
C-TDS	1125.	1112.	1183.	1201.	1207.
EPMCAT	17.82	18.09	18.07	19.42	19.63
EPMAN	17.98	17.64	18.97	18.81	18.78
CAT/AN	0.99	1.03	0.95	1.03	1.05
BLDIF%	0.44	1.27	2.42	1.59	2.22
CA	183.	188.	185.	212.	216.
MG	99.0	100.	99.0	100.	100.
NA	11.3	10.0	14.8	12.8	13.0
K	2.1	2.1	2.2	2.3	2.3
CL	6.1	7.1	8.0	9.0	12.2
SO4	486.	470.	535.	530.	520.
HCO3	469.	467.	464.	459.	464.
SIO2	12.2	12.5	12.0	12.3	12.7
TIC	78.5	77.5	79.0	78.0	78.5
TOC	2.5	2.5	2.3	2.0	1.8
H2S	44.4	42.5	48.4	46.8	52.1
AL					
AS					
CD					
CU					
FE					
MN					
NI					
PB					
ZN					
DELD	-151.7	-159.8	-160.3	-156.2	-160.3
DEL SO4	23.6	23.4	23.4	23.4	23.1
DELHS	-11.2	-10.1	-9.2	-10.3	-10.5

5. Reference

Weyer, K. U., Krouse, H. R. and Horwood, W. C. 1979. Investigation of regional geohydrology south of Great Slave Lake, Canada, utilizing natural sulphur and hydrogen isotope variations. Isotope Hydrology 1978. Vol. I, p. 251-264, International Atomic Energy Agency, Vienna, 1979.