090315 2 of 2

Volume Two

CARMACKS SOUTH COAL PROJECT
REPORT ON 1979 AND 1980 FIELD WORK

Whitehorse Mining District
Yukon Territory

N.T.S. 115-I-1

Lat. 62° 05' N
Long. 136° 15' W

By:
T.J. Adamson
Cyprus Anvil Mining Corporation

October 1980

FILE COPY

VOLUME TWO

CARMACKS SOUTH COAL PROJECT

REPORT ON 1979 and 1980 FIELD WORK

Whitehorse Mining District

Yukon Territory

N.T.S. 115-I-1

Lat. 62° 05' N

Long. 136° 15' W

By:

T.J. Adamson

CYPRUS ANVIL MINING CORPORATION

October 1980

APPENDIX IV

Electrolog - CS-79-3
CS-79-4
CS-79-15
CS-79-16
CS-79-17
CS-79-20
CS-79-22
CS-79-24
CS-79-28
CS-79-29
CS-79-32

ELECTROLOG - CS-79-3 (4 of 4 logs)

NEUTRON-NEUTRON LOG

BOREHOLE C79-3

CLIENT Cyprus Anvil

AREA Carmacks Y.T.

COUNTRY Canada

DATE LOGGED 29/9/79

DEPTH SCALE 1:100

3 OF 4 LOGS

BOREHOLE DATA	REFER TO Lithology LOG
OPERATION DATA	REFER TO Lithology LOG

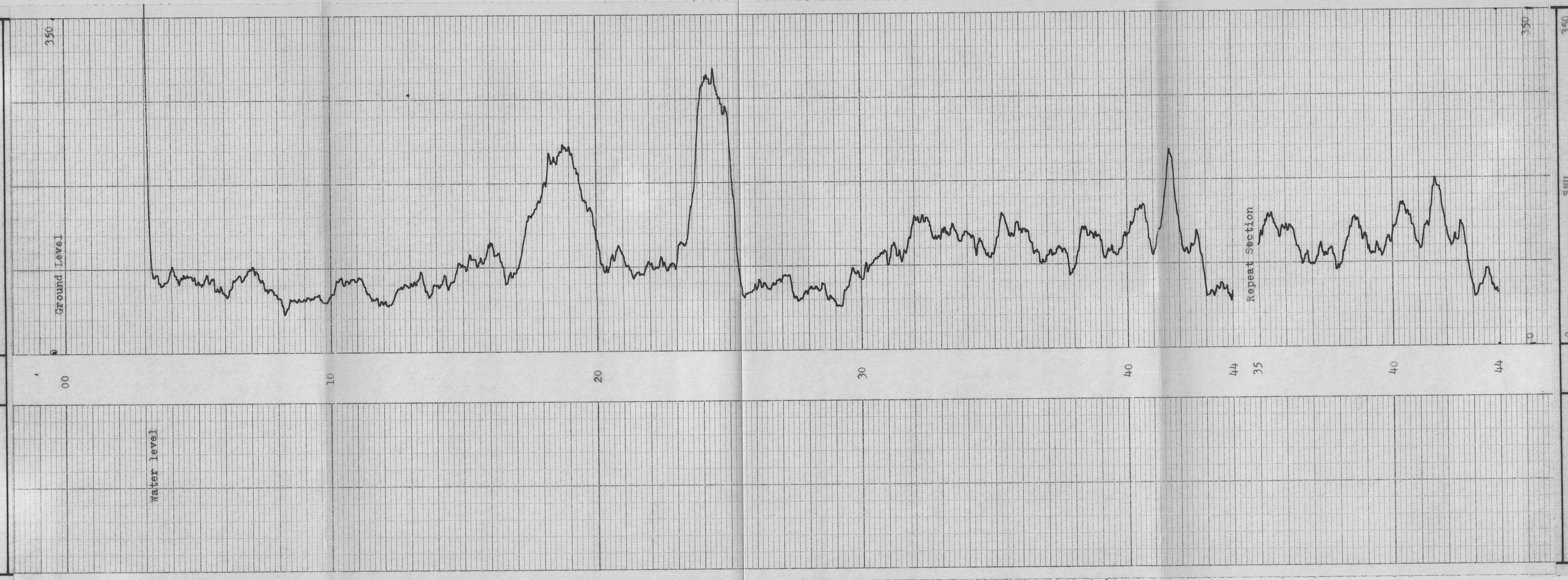
EQUIPMENT AND RECORDING DATA

LOG	TAPING			PANEL			CAL COEFF
	LOG TAPED	RECORD SPEED	DIRECT or REPLAY	SPEED	T C SECS	NORM	
N-N	Y	9	D	9	1	.66	
		SONDE NO	18	SOURCE NO	247		

REMARKS

NEUTRON-NEUTRON 350 SNU 0

DEPTH



AREA Carmacks Y.T.

COUNTRY Canada

BOREHOLE C79-3

CLIENT Cyprus Anvil

BOREHOLE C79-3

CLIENT Cyprus Anvil

AREA Carmacks Y.T.

COUNTRY Canada

DATE LOGGED 29/9/79

DEPTH SCALE 1:20

2 OF 4 LOGS

COAL QUALITY LOG

BOREHOLE DATA	REFER TO LITHOLOGY LOG
OPERATION DATA	REFER TO LITHOLOGY LOG

EQUIPMENT AND RECORDING DATA

COAL COMBINATION SONDE

SIDEWALL POSITION

LOG	TAPING: LOG TAPED	TAPING: RECORD SPEED	TAPING: DIRECT or REPLAY	PANEL: SPEED	PANEL: T.C. SECS	PANEL: NORM	CAL COEFF
GAMMA RAY	Y	2	R	2	2	1.54	
L.S. DENSITY	Y	2	R	2	1	7.30	

SOURCE: SONDE AND CALIBRATION

REFER TO LITHOLOGY LOG

SONDE TYPE: COAL COMBINATION SONDE

LOG SUITE: GAMMA RAY L.S. DENSITY

COAL QUALITY LOG INTERVALS

FROM	18
TO	10
INTERVAL	8
FROM	
TO	
INTERVAL	

INTERVAL TOTAL 8m

REMARKS

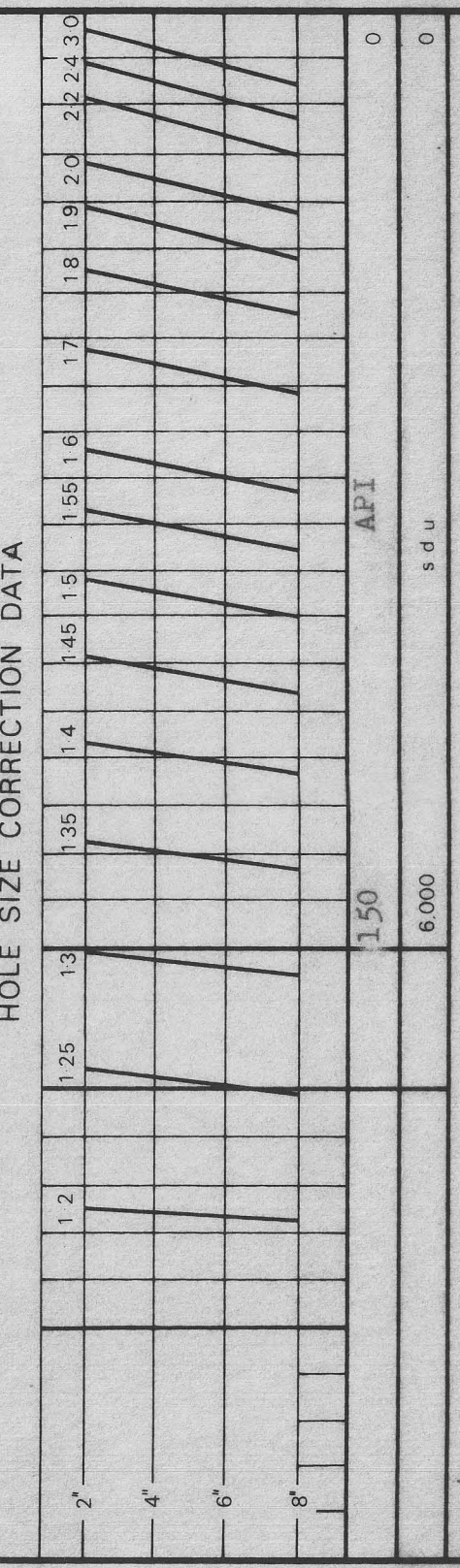
BPB COAL QUALITY LOG

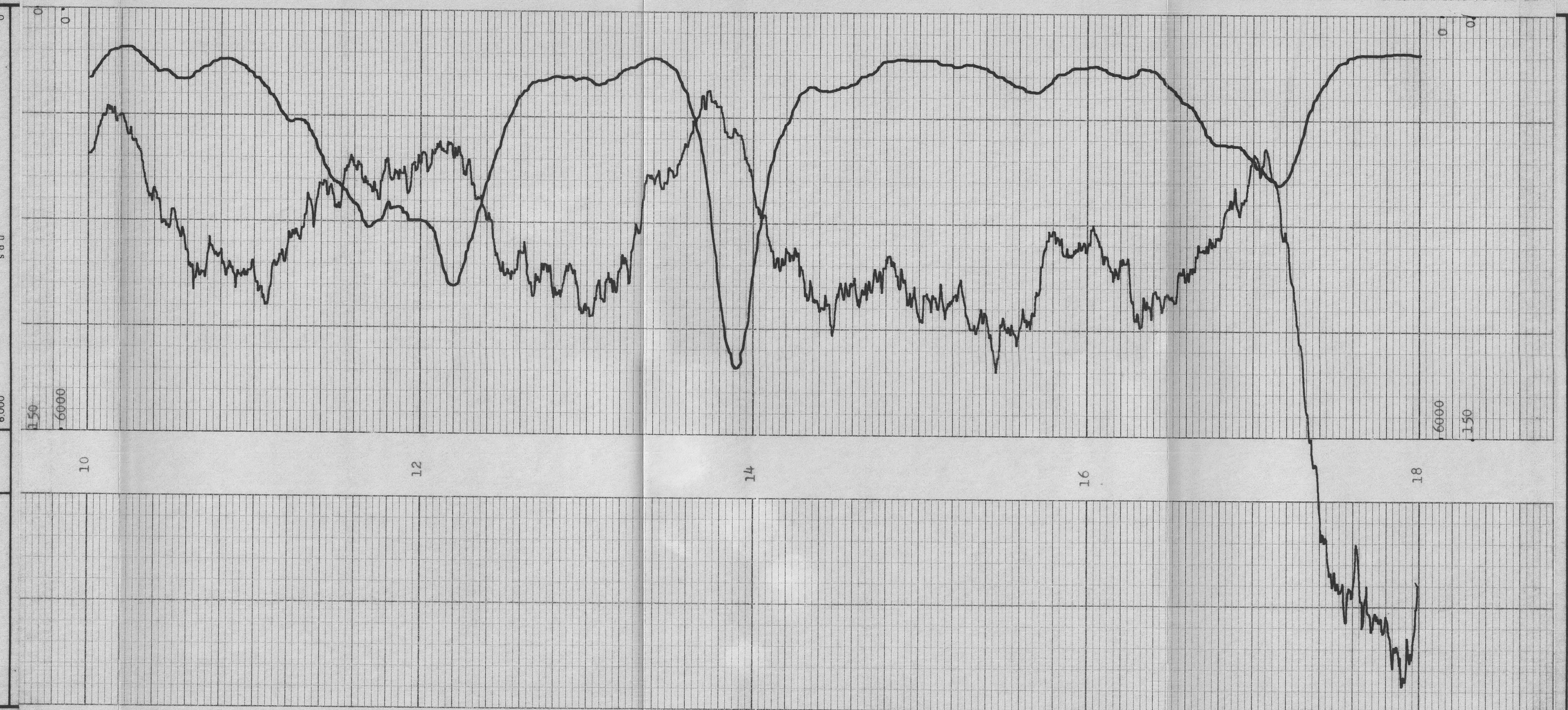
GAMMA RAY

COAL BULK DENSITY g/cm³

DEPTH

HOLE SIZE CORRECTION DATA





COAL BULK DENSITY g/cm³

GAMMA RAY

DEPTH

AREA Carmacks Y.T.

COUNTRY Canada

BOREHOLE C79-3

CLIENT Cyprus Anvil

COAL QUALITY LOG

MY 88002 R

BOREHOLE C79-3
CLIENT Cyprus Anvil
AREA Carmack Y.T.
COUNTRY Canada
DATE LOGGED 29/9/79
DEPTH SCALE 1:100
1 OF 4 LOGS

COAL LITHOLOGY LOG

COAL

SONDE TYPE
COAL COMBINATION SONDE

LOG SUITE
GAMMA RAY
L.S. DENSITY
CALIPER

BOREHOLE DATA

PERMANENT DATUM	Ground Level	
ELEVATION OF P D		
	BPB	DRILLER
MEASUREMENTS FROM	G.L.	G.L.
DEPTH REACHED	44m	
CASING SHOE		

BIT SIZES	1	5½	TO TD	2	TO
	3		TO	4	TO
CASING SIZES	1		TO	2	TO

FLUID DATA

NATURE	Water
S.G.	
LEVEL	
VISCOSITY	
Rm at meas. temp.	
B.H.T.	

OPERATION DATA

FIRST READING	23.2m
LAST READING	0
INTERVAL LOGGED	23.20m
UNIT-TRUCK No.	RV21
ENGINEER	RJB/KN/DR
WITNESS	T.Adamson

EQUIPMENT AND RECORDING DATA

COAL COMBINATION SONDE

LOG	EQUIPMENT			TAPING			PANEL			CAL COEFF	DEPTHS			SEAM LOG RUN
	SONDE	SOURCE	CALIBRATOR	LOG TAPED	RECORD SPEED	DIRECT or REPLAY	SPEED	T.C. SECS	NORM		FROM	TO	INTERVAL	
GAMMA RAY	119			Y	9	D	9	1	1.54		22	0	22	Y
L.S DENSITY				Y	9	D	9	1/3	7.30		23	1	22	Y
CALIPER	SIDEWALL POSITION			Y	9	D	9	1/3	-		23	1	22	Y

COAL QUALITY/SEAM THICKNESS LOG INTERVALS (Refer to relevant log)

FROM	18	INTERVAL TOTAL
TO	10	
INTERVAL	8	= 8m

ADDITIONAL SONDES RUN

SONDE	LOG	GENERAL SCALE LOG	DETAIL SCALE LOG
18	N-N	1:100	
104	DIP		

REFER TO ADDITIONAL HEADINGS

REMARKS

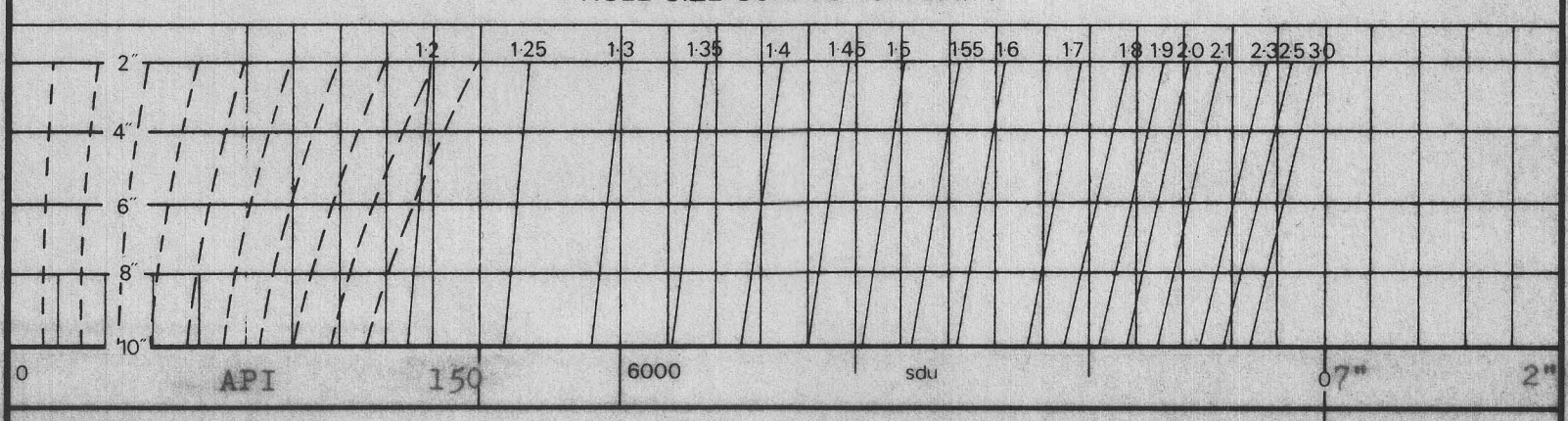
BPB COAL LITHOLOGY LOG

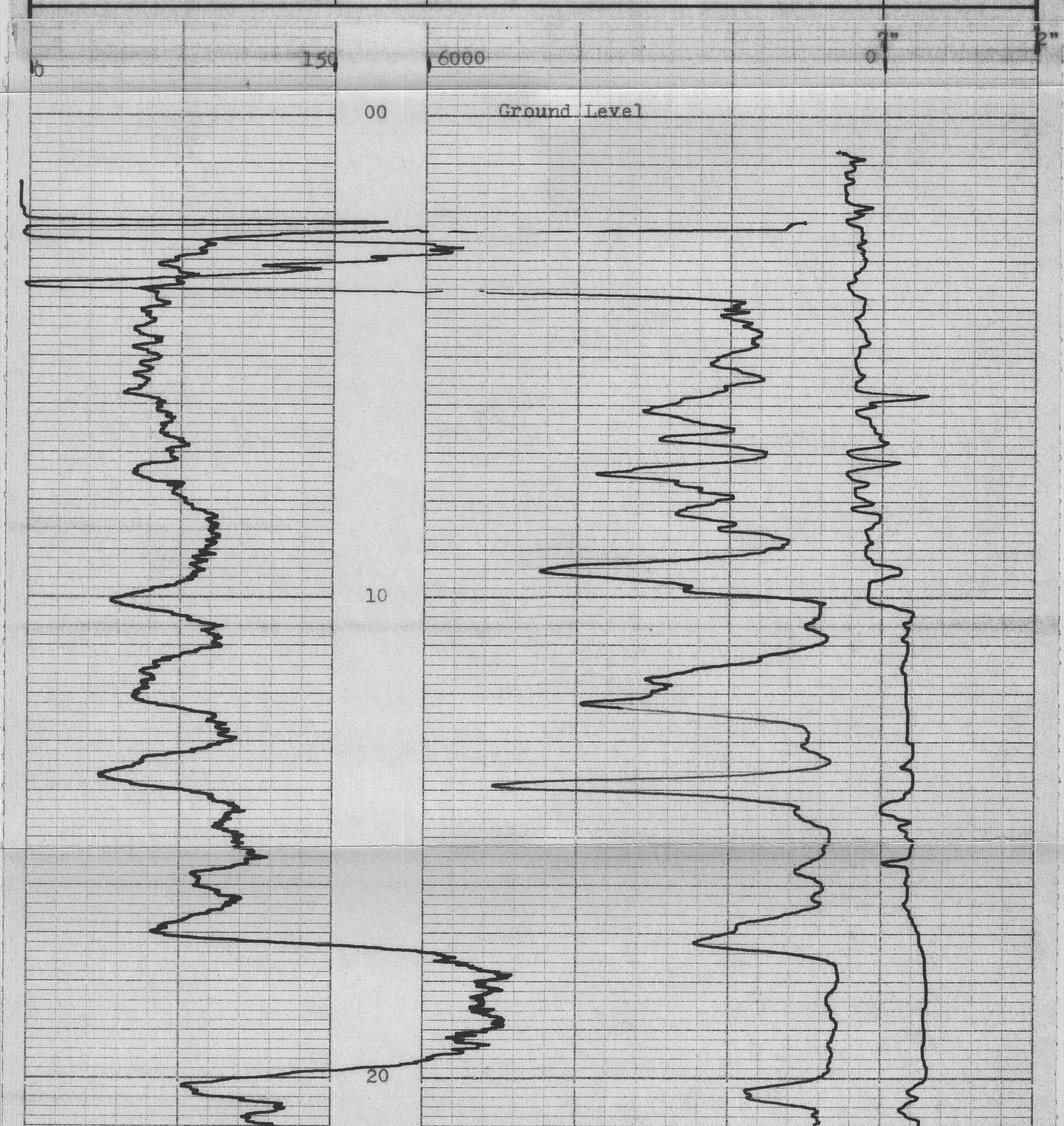
CALIBRATION DATA

JIG No. VALUE 292 @ 2" DIAM
JIG MARK SHOWN AT ABOVE VALUE X.3
JIG CAL DATE 25/9/79 JIG VALUE 3750 SDU @ g/cm³
JIG No SPAN 6000 NORM SDU/CPS = 7.30
7 ins 895 cps
2 ins 460 cps

GAMMA RAY	DEPTH	BULK DENSITY g/cm³	CALIPER INCHES

HOLE SIZE CORRECTION DATA





GAMMA RAY	DEPTH	BULK DENSITY g/cm³	CALIPER INCHES
0 API 150		6000 sdu	0 7" 2"

BOREHOLE C79-3
CLIENT Cyprus Anvil
AREA Carmacks Y.T.
COUNTRY Canada

COAL LITHOLOGY LOG

MY A50261 R

BOREHOLE C79-3
CLIENT Cyprus Anvil

AREA Carmacks Y.T.
COUNTRY Canada
DATE LOGGED 29/9/79

DEPTH SCALE 1:20

4 OF 4 LOGS

SEAM THICKNESS LOG

BOREHOLE DATA — REFER TO LITHOLOGY LOG
OPERATION DATA — REFER TO LITHOLOGY LOG
EQUIPMENT AND RECORDING DATA

COAL COMBINATION SONDE:

LOG	TAPING		SIDEWALL POSITION		
	LOG TAPED	RECORD SPEED	DIRECT or REPLAY	SPEED	T.C. SECS	PANEL NORM	CAL COEFF
CALIPER	Y	2	R	2	1	-	
B.R.DENSITY	Y	2	R	2	1	.66	

SOURCE. SONDE AND CALIBRATION
REFER TO LITHOLOGY LOG

SONDE TYPE:
COAL
COMBINATION
SONDE

LOG SUITE:
CALIPER
B.R. DENSITY

SEAM THICKNESS LOG INTERVALS

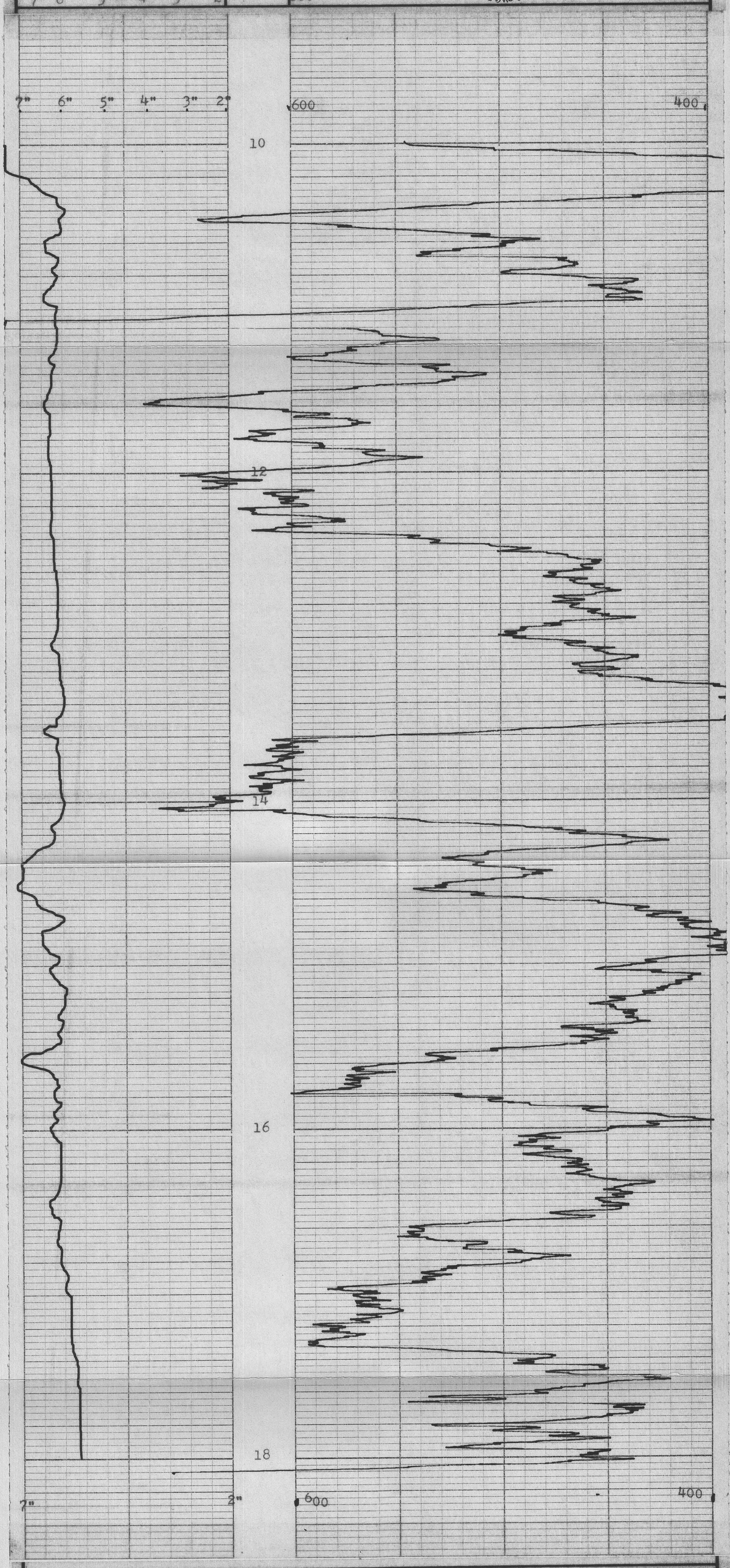
FROM	18
TO	10
INTERVAL	8
FROM	
TO	
INTERVAL	

INTERVAL TOTAL ≠ 8m

REMARKS

B P B SEAM THICKNESS LOG

CALIPER INCHES	DEPTH	BED RESOLUTION DENSITY
7" 6" 5" dia 4" 3" 2"		600 SBRDU 400



CALIPER INCHES	DEPTH	BED RESOLUTION DENSITY
7" 6" 5" dia 4" 3" 2"		600 SBRDU 400

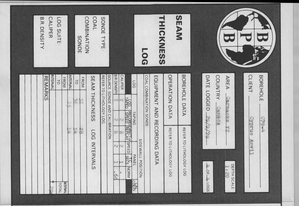
BOREHOLE C79-3
CLIENT Cyprus Anvil

AREA Carmacks Y.T.
COUNTRY Canada

SEAM THICKNESS LOG

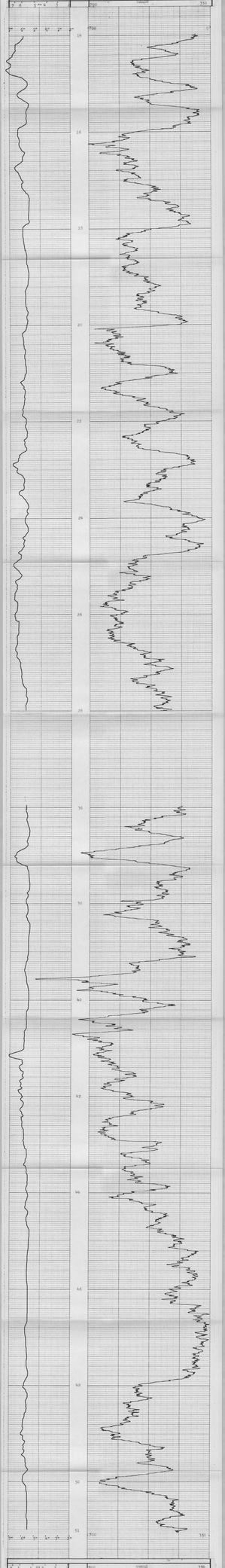
MY 88002 R

ELECTROLOG - CS-79-4 (4 of 4 logs)



B P B SEAM THICKNESS LOG

CALIPER | DEPTH | BED RESOLUTION DENSITY



CALIPER | DEPTH | BED RESOLUTION DENSITY

BOREHOLE ZN-6 | AREA Jeanette FT
CLIENT Optima Anvil | COUNTRY Canada

SEAM THICKNESS LOG

BPB

COAL QUALITY LOG

BOREHOLE	099-4
CLIENT	Cypress Anvil
AREA	Carmacks T.T.
COUNTRY	Canada
DATE LOGGED	29/6/79
LOGGED BY	L. de Jong
OPERATIONAL	1180

BOREHOLE DATA	REF. TO LIMBOUGH LOG
OPERATION DATA	REF. TO LIMBOUGH LOG
EQUIPMENT AND RECORDING DATA	COAL QUALITY LOG
COMMENTS	

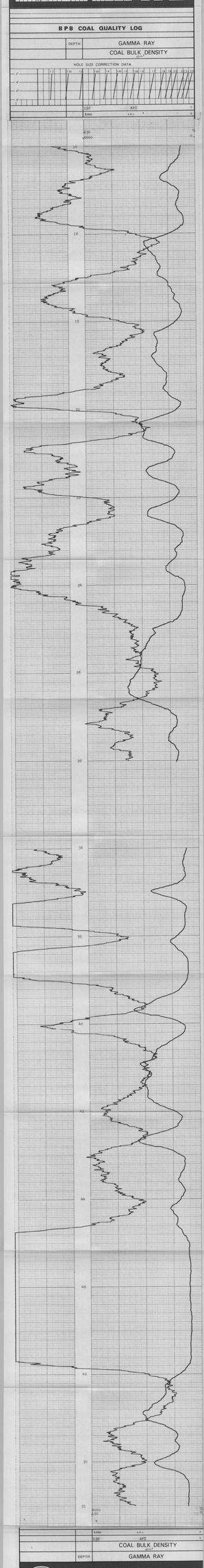
SONDE TYPE	COAL QUALITY LOG INTERVALS
COAL	
COMBINATION	
SONDE	
LOG SUITE	
GAMMA RAY	
L.S. DENSITY	

REMARKS	

BPB COAL QUALITY LOG

DEPTH	GAMMA RAY
	COAL BULK DENSITY

HOLE SIZE CORRECTION DATA



DEPTH	GAMMA RAY
	COAL BULK DENSITY

BPB

BOREHOLE	099-4
CLIENT	Cypress Anvil
AREA	Carmacks T.T.
COUNTRY	Canada

COAL QUALITY LOG

BPB

COAL LITHOLOGY LOG

LOG SUITE: GAMMA RAY, L.S. DENSITY, CALIPER

SONDE TYPE COMBINATION SONDE

BOREHOLE 079-4
CLIENT Cyprus Anvil
AREA Carmacks Y.T.
COUNTRY Canada
DATE LOGGED 25/9/79
RUN No. 1
DEPTH DRILLER 1354.74m
DEPTH LOGGER 1354.74m

BOREHOLE DATA

	BIT	CASING	FLUID LEVEL
DIAMETER	6"	6"	
FROM	0	0	
TO	1354.74m	135.74m	

PERMANENT DATUM: GROUND LEVEL
LOG MEASURED FROM: DRILLING FLOOR
DRILLER: 1354.74m
LOGGER: 1354.74m

FLUID DATA: WATER

OPERATION DATA

	RECORDED	OPERATING RIG
RUN No.	1	
BIT SIZE	6"	
CASING SIZE		
FROM	0	
TO	135.74m	
FLUID LEVEL		
FLUID TYPE	WATER	
FLUID DENSITY		
VISCOSITY		
PH & FLUID LOSS		
SOURCE OF SAMPLE		
RM @ MEAS. TEMP.		
RMF @ MEAS. TEMP.		
RMC @ MEAS. TEMP.		
SOURCE OF RMF & RMC		
RM @ BHT		
TIME SINCE CIRC.		
MAX. REC. TEMP.		
EQUIP. LOCATION		
RECORDED BY		
WITNESSED BY		

EQUIPMENT AND RECORDING DATA

COAL COMBINATION SONDE

LOG	EQUIPMENT: SONDE	SOURCE	CALIBRATOR	TAPING: LOG TAPED	RECORD SPEED	DIRECTION REPLAY	PANEL: SPEED	TC SECS	NORM	CAL LOG: FROM	CAL LOG: TO	DEPTHS: FROM	DEPTHS: TO	SEAM LOG RUN
GAMMA RAY	119			Y	9	D	9	1	1.5K	60	0	60		Y
DENSITY				Y	9	D	9	1/3	7.30	61	1	60		Y
CALIPER	SIDEWALL POSITION			Y	9	D	9	1/3	-	61	1	60		Y

COAL QUALITY/SEAM THICKNESS LOG INTERVALS (Refer to relevant log)

FROM	51	28
TO	36	14
INTERVAL	15	14

INTERVAL TOTAL 29m

ADDITIONAL SONDES RUN

SONDE	LOG	GENERAL SCALE	DETAIL SCALE
18	R-M	1:100	
104	DIP		

REFER TO ADDITIONAL HEADINGS

REMARKS

BPB COAL LITHOLOGY LOG

CALIBRATION DATA

JIG No VALUE 50 @ 2 DIAM
JIG MARK SHOWN AT ABOVE VALUE 2.3

JIG CAL DATE 25/9/79 JIG VALUE 250 SDU ① g/cm³ 2 in. 805 cps
JIG No SPAN 6000 NORM 7.30 2 in. 460 cps

GAMMA RAY | DEPTH | BULK DENSITY g/cm³ | CALIPER INCHES

HOLE SIZE CORRECTION DATA



GAMMA RAY | DEPTH | BULK DENSITY g/cm³ | CALIPER INCHES

BPB
BOREHOLE 079-4 AREA Carmacks Y.T.
CLIENT Cyprus Anvil COUNTRY Canada
COAL LITHOLOGY LOG

MT A 10361 K

NEUTRON-NEUTRON LOG

BOREHOLE C79-4
CLIENT Cyprus Anvil

AREA Carmacks Y.T.
COUNTRY Canada
DATE LOGGED 29/9/79

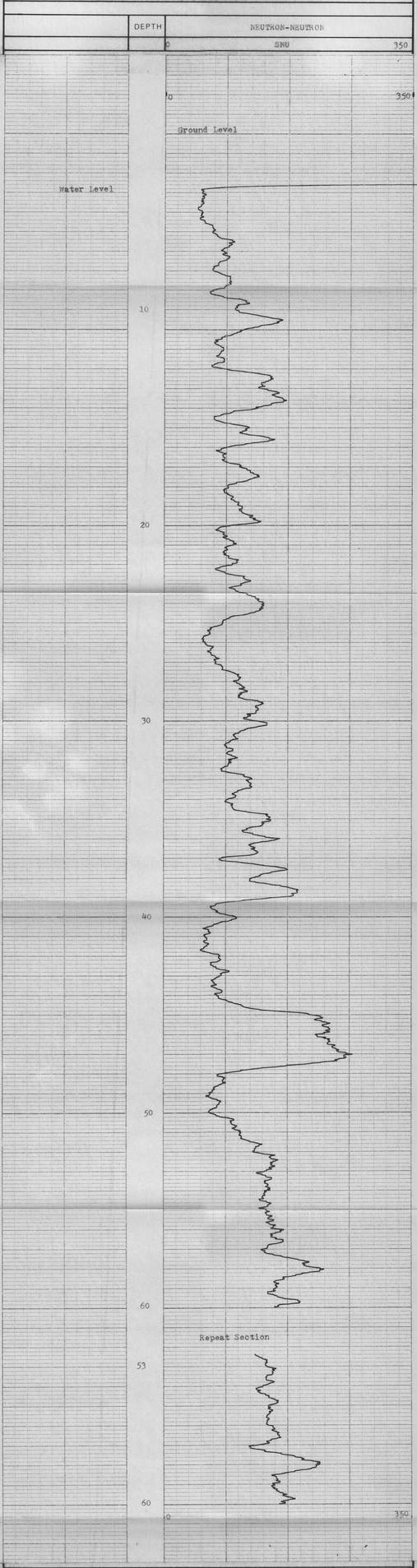
DEPTH SCALE 1:100
3 OF 4 LOGS

BOREHOLE DATA — REFER TO Lithology LOG
OPERATION DATA — REFER TO Lithology LOG

EQUIPMENT AND RECORDING DATA

LOG	TAPING			PANEL			CAL. COEFF.
	LOG. LIMITED	RECORDING SPEED	DIRECTION REPLAY	SPEED	T.C. SECS.	NORM	
N-N	Y	9	D	9	1	.68	
		SONDE NO	18	GEOSET NO	2479		

REMARKS



BOREHOLE C79-4
CLIENT Cyprus Anvil
AREA Carmacks Y.T.
COUNTRY Canada

MY 95160 R

ELECTROLOG - CS-79-15

NEUTRON-NEUTRON LOG

BOREHOLE C79-15
CLIENT Cyprus Anvil
AREA Carmacks Y.T.
COUNTRY Canada
DATE LOGGED 30/9/79

DEPTH SCALE 1:100

1 OF 1 LOGS

BOREHOLE DATA

PERMANENT DATUM	Ground Level		
ELEVATION OF P.D.		B.P.B.	DRILLER
MEASUREMENTS FROM	G.L.	G.L.	
DEPTH REACHED	23.80m	122.80m	
CASING SHOE			
BIT SIZES 1	5½	TO TD	2 TO
3		TO	4 TO
CASING SIZES 1		TO	2 TO

FLUID DATA

NATURE	Water
S.G.	
LEVEL	
VISCOSITY	
Rm at meas temp	
B H T	

OPERATION DATA

FIRST READING	23m
LAST READING	0
INTERVAL LOGGED	23m
UNIT-TRUCK No.	RV21
ENGINEER	RJB/KN/DR
WITNESS	T.Adamson

EQUIPMENT AND RECORDING DATA

LOG	EQUIPMENT			TAPING			PANEL			CAL. COEFF.	DEPTHS			
	SONDE	SOURCE	CALIBRATOR	LOG TAPED	RECORD SPEED	DIRECTor REPLAY	SPEED	T.C. SECS	NORM.		FROM	TO	INTERVAL	
N-N	18	2479	-	Y	9	D	9	1	.68		23	0	23	

ADDITIONAL SONDES RUN

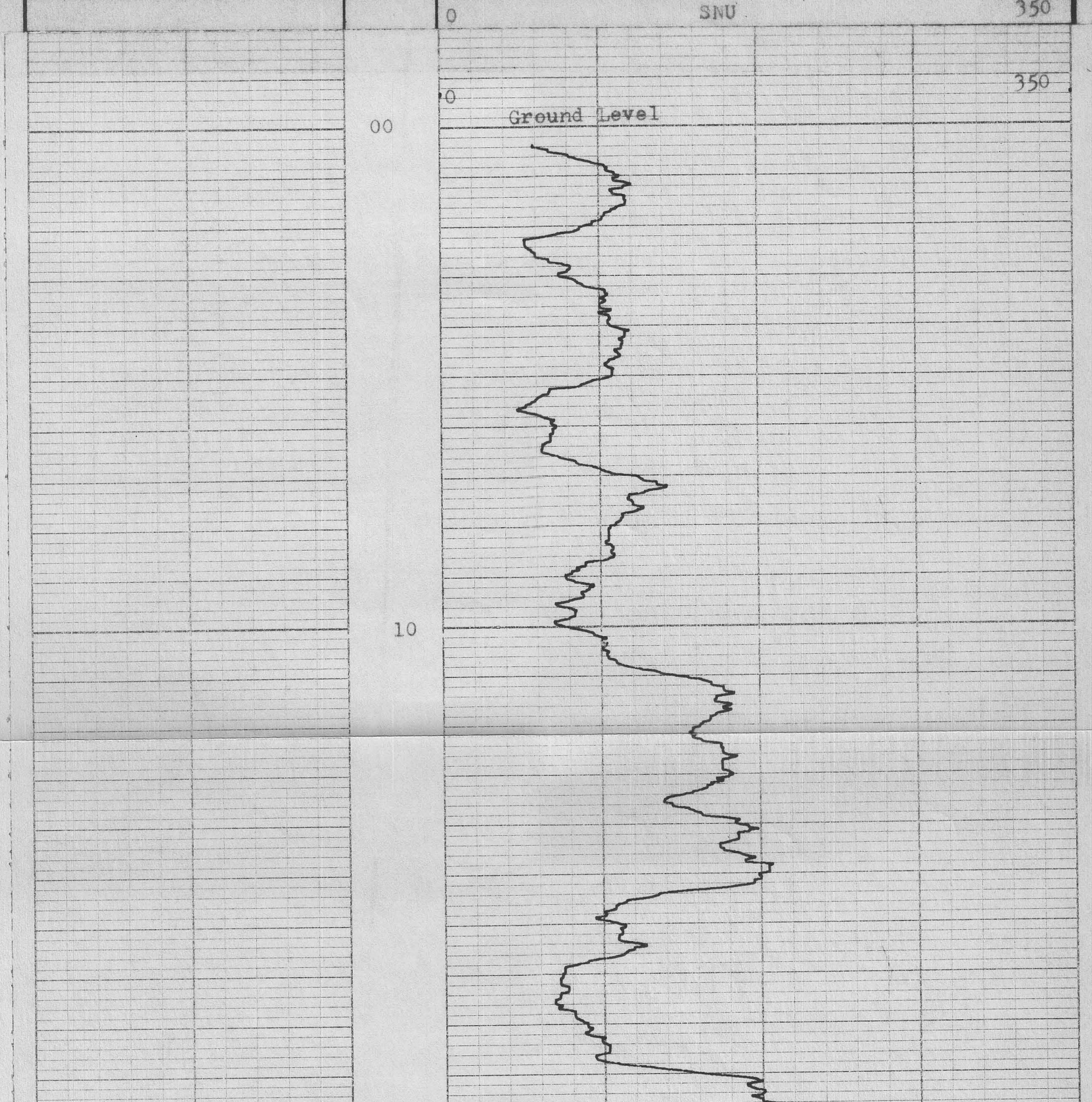
SONDE	LOG	GENERAL SCALE LOG	DETAIL SCALE LOG

REFER TO ADDITIONAL HEADINGS

REMARKS

Due to bad condition of the hole CCS and Dip Meter could not be run.

	DEPTH	NEUTRON-NEUTRON
		0 SNU 350

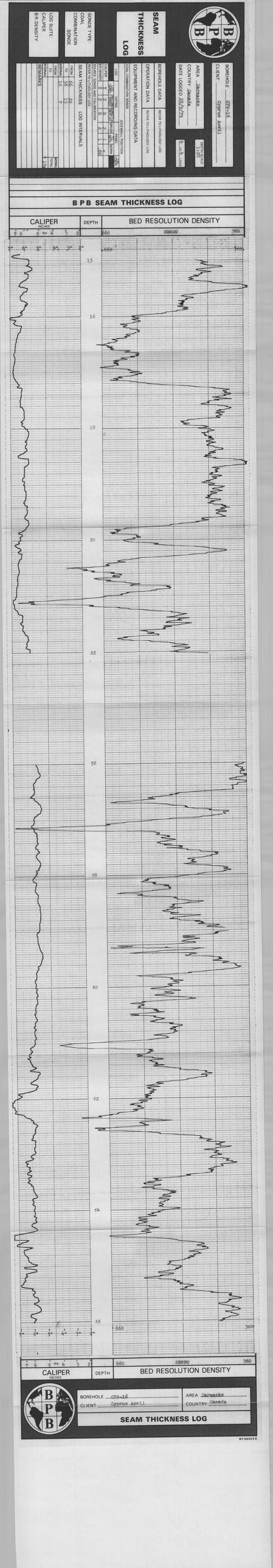


	DEPTH	0 SNU 350
		NEUTRON-NEUTRON

BOREHOLE C79-15
CLIENT Cyprus Anvil
AREA Carmacks Y.T.
COUNTRY Canada

MY 95160 R

ELECTROLOG - CS-79-16 (4 of 4 logs)


SEAM THICKNESS LOG
BPB
BOREHOLE G79-16
CLIENT Cyprus Anvil
AREA Carnacks
COUNTRY Canada
DATE LOGGED 28/9/79
SONDE TYPE
COAL COMBINATION SONDE
LOG SUITE
CALIPER
B.R. DENSITY
BOREHOLE DATA
REFER TO LITHOLOGY LOG
OPERATION DATA
EQUIPMENT AND RECORDING DATA
SEAM THICKNESS LOG INTERVALS
REMARKS
B P B SEAM THICKNESS LOG
CALIPER
INCHES
DEPTH
BED RESOLUTION DENSITY
SHARU
660
360
15
16
18
20
22
56
58
60
62
64
66
BOREHOLE G79-16
CLIENT Cyprus Anvil
AREA Carnacks
COUNTRY Canada
SEAM THICKNESS LOG

BOREHOLE CG79-16
CLIENT Cyprus Anvil
AREA Carmacks
COUNTRY Canada
DATE LOGGED 28/8/79
DEPTH SCALE 1:20
2 OF 4 (0005)

COAL QUALITY LOG

SONDE TYPE: COAL COMBINATION SONDE

LOG SUITE: GAMMA RAY L.S. DENSITY

BOREHOLE DATA — REFER TO LITHOLOGY LOG

OPERATION DATA — REFER TO LITHOLOGY LOG

EQUIPMENT AND RECORDING DATA

COAL COMBINATION SONDE

	SIDEWALL POSITION				
LOG	FAILED				
GAMMA RAY	1	1	1	1	1
L.S. DENSITY	2	2	2	2	2
COAL COMBINATION SONDE	3	3	3	3	3
	4	4	4	4	4
	5	5	5	5	5
	6	6	6	6	6
	7	7	7	7	7
	8	8	8	8	8
	9	9	9	9	9
	10	10	10	10	10

	SAFING				
LOG	FAILED				
GAMMA RAY	1	1	1	1	1
L.S. DENSITY	2	2	2	2	2
COAL COMBINATION SONDE	3	3	3	3	3
	4	4	4	4	4
	5	5	5	5	5
	6	6	6	6	6
	7	7	7	7	7
	8	8	8	8	8
	9	9	9	9	9
	10	10	10	10	10

LOG	1	2	3	4	5
GAMMA RAY	1.1	1.1	1.1	1.1	1.1
L.S. DENSITY	1.1	1.1	1.1	1.1	1.1
COAL COMBINATION SONDE	1.1	1.1	1.1	1.1	1.1
	7.4	7.4	7.4	7.4	7.4

LOG	6	7	8	9	10
GAMMA RAY	1.1	1.1	1.1	1.1	1.1
L.S. DENSITY	1.1	1.1	1.1	1.1	1.1
COAL COMBINATION SONDE	1.1	1.1	1.1	1.1	1.1
	7.4	7.4	7.4	7.4	7.4

LOG	11	12	13	14	15
GAMMA RAY	1.1	1.1	1.1	1.1	1.1
L.S. DENSITY	1.1	1.1	1.1	1.1	1.1
COAL COMBINATION SONDE	1.1	1.1	1.1	1.1	1.1
	7.4	7.4	7.4	7.4	7.4

LOG	16	17	18	19	20
GAMMA RAY	1.1	1.1	1.1	1.1	1.1
L.S. DENSITY	1.1	1.1	1.1	1.1	1.1
COAL COMBINATION SONDE	1.1	1.1	1.1	1.1	1.1
	7.4	7.4	7.4	7.4	7.4

LOG	21	22	23	24	25
GAMMA RAY	1.1	1.1	1.1	1.1	1.1
L.S. DENSITY	1.1	1.1	1.1	1.1	1.1
COAL COMBINATION SONDE	1.1	1.1	1.1	1.1	1.1
	7.4	7.4	7.4	7.4	7.4

LOG	26	27	28	29	30
GAMMA RAY	1.1	1.1	1.1	1.1	1.1
L.S. DENSITY	1.1	1.1	1.1	1.1	1.1
COAL COMBINATION SONDE	1.1	1.1	1.1	1.1	1.1
	7.4	7.4	7.4	7.4	7.4

LOG	31	32	33	34	35
GAMMA RAY	1.1	1.1	1.1	1.1	1.1
L.S. DENSITY	1.1	1.1	1.1	1.1	1.1
COAL COMBINATION SONDE	1.1	1.1	1.1	1.1	1.1
	7.4	7.4	7.4	7.4	7.4

LOG	36	37	38	39	40
GAMMA RAY	1.1	1.1	1.1	1.1	1.1
L.S. DENSITY	1.1	1.1	1.1	1.1	1.1
COAL COMBINATION SONDE	1.1	1.1	1.1	1.1	1.1
	7.4	7.4	7.4	7.4	7.4

LOG	41	42	43	44	45
GAMMA RAY	1.1	1.1	1.1	1.1	1.1
L.S. DENSITY	1.1	1.1	1.1	1.1	1.1
COAL COMBINATION SONDE	1.1	1.1	1.1	1.1	1.1
	7.4	7.4	7.4	7.4	7.4

LOG	46	47	48	49	50
GAMMA RAY	1.1	1.1	1.1	1.1	1.1
L.S. DENSITY	1.1	1.1	1.1	1.1	1.1
COAL COMBINATION SONDE	1.1	1.1	1.1	1.1	1.1
	7.4	7.4	7.4	7.4	7.4

LOG	51	52	53	54	55
GAMMA RAY	1.1	1.1	1.1	1.1	1.1
L.S. DENSITY	1.1	1.1	1.1	1.1	1.1
COAL COMBINATION SONDE	1.1	1.1	1.1	1.1	1.1
	7.4	7.4	7.4	7.4	7.4

LOG	56	57	58	59	60
GAMMA RAY	1.1	1.1	1.1	1.1	1.1
L.S. DENSITY	1.1	1.1	1.1	1.1	1.1
COAL COMBINATION SONDE	1.1	1.1	1.1	1.1	1.1
	7.4	7.4	7.4	7.4	7.4

LOG	61	62	63	64	65
GAMMA RAY	1.1	1.1	1.1	1.1	1.1
L.S. DENSITY	1.1	1.1	1.1	1.1	1.1
COAL COMBINATION SONDE	1.1	1.1	1.1	1.1	1.1
	7.4	7.4	7.4	7.4	7.4

LOG	66	67	68	69	70
GAMMA RAY	1.1	1.1	1.1	1.1	1.1
L.S. DENSITY	1.1	1.1	1.1	1.1	1.1
COAL COMBINATION SONDE	1.1	1.1	1.1	1.1	1.1
	7.4	7.4	7.4	7.4	7.4

LOG	71	72	73	74	75
GAMMA RAY	1.1	1.1	1.1	1.1	1.1
L.S. DENSITY	1.1	1.1	1.1	1.1	1.1
COAL COMBINATION SONDE	1.1	1.1	1.1	1.1	1.1
	7.4	7.4	7.4	7.4	7.4

LOG	76	77	78	79	80
GAMMA RAY	1.1	1.1	1.1	1.1	1.1
L.S. DENSITY	1.1	1.1	1.1	1.1	1.1
COAL COMBINATION SONDE	1.1	1.1	1.1	1.1	1.1
	7.4	7.4	7.4	7.4	7.4

LOG	81	82	83	84	85
GAMMA RAY	1.1	1.1	1.1	1.1	1.1
L.S. DENSITY	1.1	1.1	1.1	1.1	1.1
COAL COMBINATION SONDE	1.1	1.1	1.1	1.1	1.1
	7.4	7.4	7.4	7.4	7.4

LOG	86	87	88	89	90
GAMMA RAY	1.1	1.1	1.1	1.1	1.1
L.S. DENSITY	1.1	1.1	1.1	1.1	1.1
COAL COMBINATION SONDE	1.1	1.1	1.1	1.1	1.1
	7.4	7.4	7.4	7.4	7.4

LOG	91	92	93	94	95
GAMMA RAY	1.1	1.1	1.1	1.1	1.1
L.S. DENSITY	1.1	1.1	1.1	1.1	1.1
COAL COMBINATION SONDE	1.1	1.1	1.1	1.1	1.1
	7.4	7.4	7.4	7.4	7.4

LOG	96	97	98	99	100
GAMMA RAY	1.1	1.1	1.1	1.1	1.1
L.S. DENSITY	1.1	1.1	1.1	1.1	1.1
COAL COMBINATION SONDE	1.1	1.1	1.1	1.1	1.1
	7.4	7.4	7.4	7.4	7.4

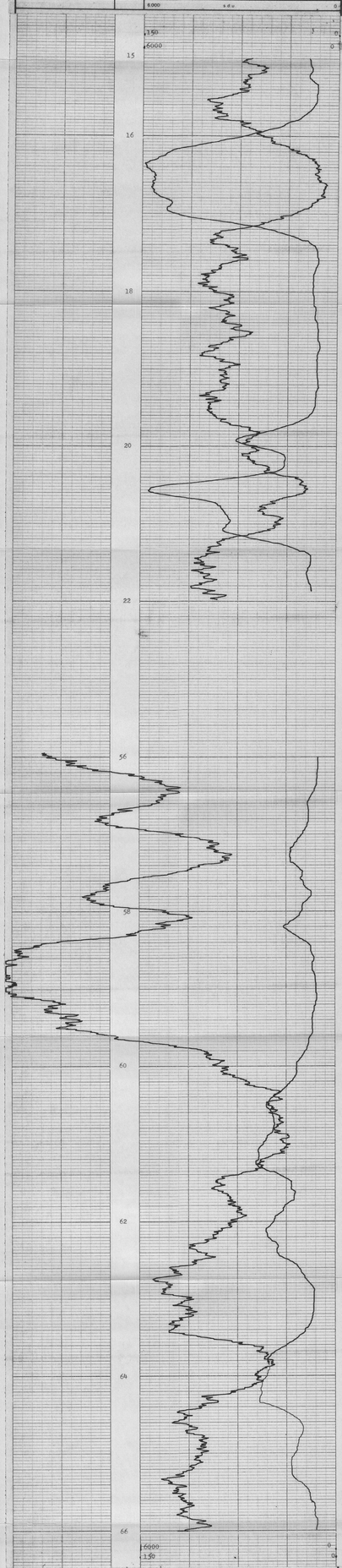
COAL QUALITY LOG INTERVALS

FROM	56	125
TO	66	10
NATURAL GAMMA	1.2	7
RETEST NATURAL GAMMA	1.2	7.4
REMARKS		

BPB COAL QUALITY LOG

DEPTH	GAMMA RAY
	COAL BULK DENSITY g/cm³

HOLE SIZE CORRECTION DATA



	6000 s d w 0
	150 API 0
	COAL BULK DENSITY g/cm³
DEPTH	GAMMA RAY

BOREHOLE CG79-16
CLIENT Cyprus Anvil
AREA Carmacks
COUNTRY Canada

COAL QUALITY LOG

COAL LITHOLOGY LOG

BPB

BOREHOLE 079-16 AREA Carmacks
CLIENT Cyprus Anvil COUNTRY Canada

LOG SUITE: GAMMA RAY / L.S. DENSITY / CALIPER

SONDE TYPE: COMBINATION SONDE

SONDE No. COMBINATION

PROBE No. 1

DETECTOR No. 1

DETECTOR TYPE: SCINTILLATION

CRYSTAL SIZE: 1" x 2"

CRYSTAL No. 1

MATERIAL LOGGED: Coal

DRILLER: Ryan

LOGGER: Ryan

DATE LOGGED: 28 Sept '79

AREA: Carmacks

COUNTRY: Canada

DEPTH SCALE: 1:100

CLIENT: Cyprus Anvil

BOREHOLE: 079-16

OPERATION DATA

	RUN 1	RUN 2	RUN 3
RECORD No.	1		
DEPTH DRILLER	66		
DEPTH LOGGER	66		
BOTTOM LOGGED INTERVAL	66		
CASING DEPTH	66		
CASING SIZE	5"		
CASING WEIGHT	15		
BIT SIZE	5"		
FLUID LEVEL	Dry		
FLUID TYPE	Air		
FLUID DENSITY			
FLUID VISCOSITY			
MAX. TEMP. DEG. C			
TIME SINCE CIRC.			
MAX. REC. TEMP. DEG. C			
EQUIP. LOCATION	Whitehorse		
RECORDED BY	S. Adamson		
WITNESSED BY			

BOREHOLE DATA

PERMANENT DATUM: GROUND LEVEL

ELEVATION P.D.: 3750'

LOG MEASURED FROM: GROUND LEVEL

DRILLING MEASURED FROM: GROUND LEVEL

EQUIPMENT AND RECORDING DATA

COAL COMBINATION SONDE

LOG	EQUIPMENT: SONDE	SOURCE	CALIBRATOR	TAPING: LOG TAPED	RECORD SPEED	DIRECTN REPL AT	PANEL: SPEED	TC SECS	NORM	CAL LOGS	DEPTHS: FROM	TO	SEAM LOG RUN
GAMMA RAY	119			Y	9	D	9	1	1.5		66	0	66 Y
DENSITY				Y	9	D	9	1/3	7.40		67	1	66 Y
CALIPER	HORIZ WALL POSITION			Y	9	D	9	1/3	-		67	1	66 Y

COAL QUALITY/SEAM THICKNESS LOG INTERVALS (Refer to relevant log)

		INTERVAL TOTAL
FROM	66 22	
TO	66 15	
INTERVAL	10 7	17ft

ADDITIONAL SONDES RUN

SONDE	LOG	GENERAL SCALE	DETAIL LOG
18	N-M	1:100	
104	Dip		

REFER TO ADDITIONAL HEADINGS

REMARKS

LSD repeat section without the normaliser in.

BPB COAL LITHOLOGY LOG

CALIBRATION DATA

JIG No. VALUE 2900 Z DIAM

JIG CAL DATE 25/8/79 JIG VALUE 7750 SDU/@ g/cm³ 7 ins 895 cps

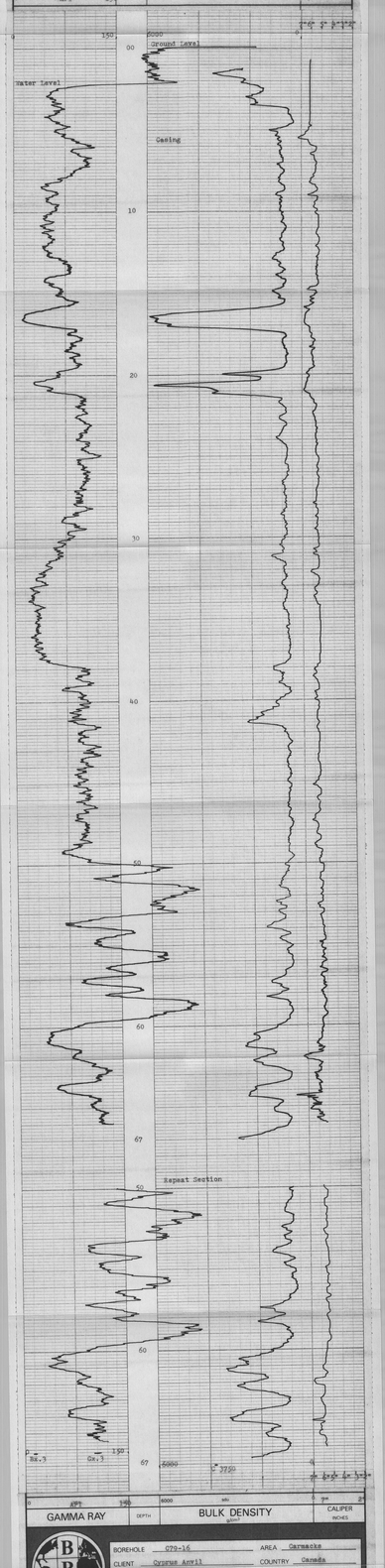
JIG MARK SHOWN AT ABOVE VALUE 80.3

JIG No. SPAN 6000 NORM PNT 7.80 2 ins 460 cps

GAMMA RAY — DEPTH — BULK DENSITY g/cm³ — CALIPER INCHES

HOLE SIZE CORRECTION DATA





GAMMA RAY — DEPTH — BULK DENSITY g/cm³ — CALIPER INCHES

BPB

BOREHOLE 079-16 AREA Carmacks
CLIENT Cyprus Anvil COUNTRY Canada

COAL LITHOLOGY LOG

MY A10361 M

NEUTRON-NEUTRON LOG

BOREHOLE C79-16
CLIENT Cyprus Anvil

AREA Carmacks
COUNTRY Canada
DATE LOGGED 28/8/79

DEPTH SCALE 1:100
4 OF 4 LOGS

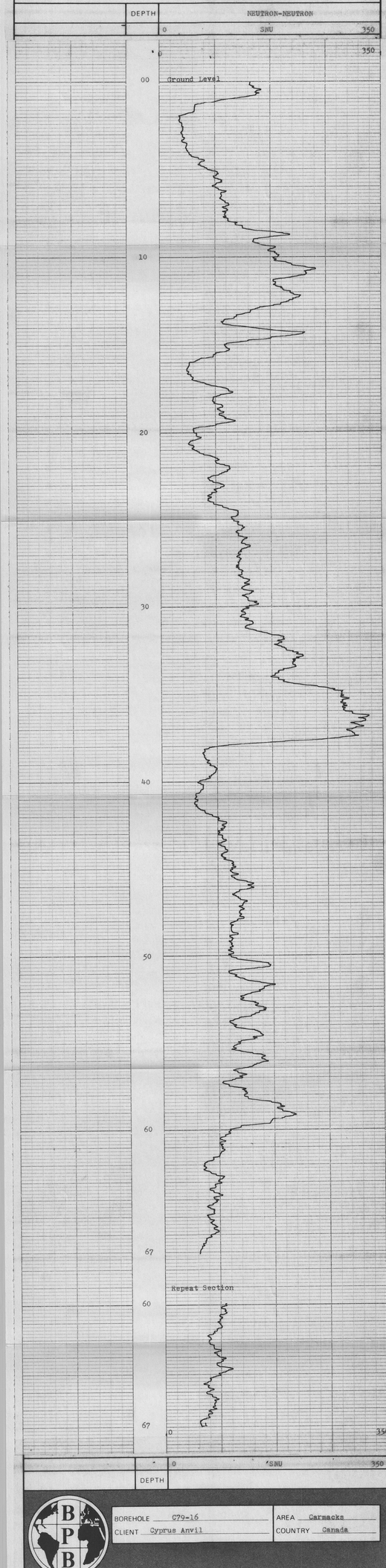
BOREHOLE DATA REFER TO LITHOLOGY LOG
OPERATION DATA REFER TO LITHOLOGY LOG

EQUIPMENT AND RECORDING DATA

LOG	TAPING				PANEL	CAL COEFF
	LOG TAPED	RECORDING SPEED	CHECK INTERVAL	SPEED	T.C. SECS	NORM
N-N	Y	9	D	9	1	0.68

REMARKS

SCALE NO. 18 SUBJ. NO. 2427



BOREHOLE C79-16
CLIENT Cyprus Anvil

AREA Carmacks
COUNTRY Canada

MY A58452R

ELECTROLOG - CS-79-17 (4 of 4 logs)

BPB

BOREHOLE 079-17
CLIENT Cyprus Anvil

AREA Carmacks T.P.
COUNTRY Canada
DATE LOGGED 29/9/79

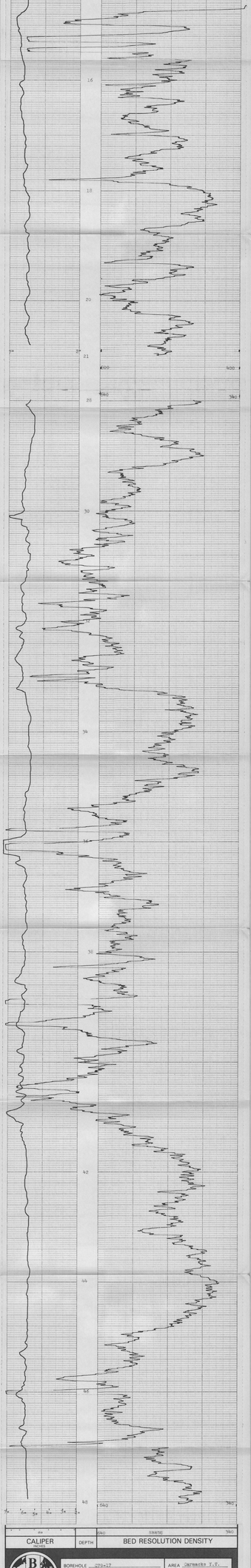
DEPTH SCALE 1:20
Sp. 1.00

SEAM THICKNESS LOG

BOREHOLE DATA	REFER TO LITHOLOGY LOG
OPERATION DATA	REFER TO LITHOLOGY LOG
EQUIPMENT AND RECORDING DATA	
COAL COMBINATION SONDE	
LOG SUITE CALIPER B.R. DENSITY	
SONDE TYPE COAL COMBINATION SONDE	
SEAM THICKNESS LOG INTERVALS	
FROM	48
TO	28
INTERVAL	20
SPEED	2
TIME	2
REMARKS	

B P B SEAM THICKNESS LOG

CALIPER INCHES	DEPTH	BED RESOLUTION DENSITY
0 5 10 15 20 25 30 35 40 45 50		600 SBRDL 400



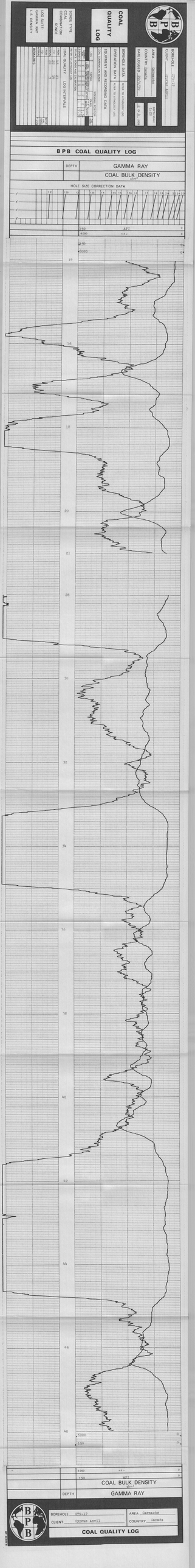
CALIPER INCHES	DEPTH	BED RESOLUTION DENSITY
0 5 10 15 20 25 30 35 40 45 50		640 SBRDL 340

BPB

BOREHOLE 079-17
CLIENT Cyprus Anvil
AREA Carmacks T.P.
COUNTRY Canada

SEAM THICKNESS LOG

MT 600019


BPB
COAL QUALITY LOG
BOREHOLE 272-19
CLIENT Syncrude Canada
AREA Carmacks
COUNTRY Canada
DATE LOGGED 26/5/72
RUN NO. 1
DEPTH DRILLER 50.30
DEPTH LOGGER 50.30
BTM. LOG INTERVAL 50.30
TOP LOG INTERVAL 0.00
CASING DRILLER 0.00
CASING LOGGER 0.00
BIT SIZE 0.00
TYPE FLUID
DENSITY
LEVEL
SOURCE OF SAMPLE
RM @ MEAS. TEMP
RMF @ MEAS. TEMP
RMC @ MEAS. TEMP
SOURCE OF RMF
SOURCE OF RMC
RM @ BHT
TIME SINCE CIRC.
MAX. REC. TEMP.
EQUIP. LOCATION
RECORDED BY
WITNESSED BY
EQUIPMENT AND RECORDING DATA
OPERATION DATA
BOREHOLE DATA
RUN NO. 1 2 3
FROM 0.00
TO 50.30
BIT SIZE 6.000
TYPE FLUID
DENSITY
VISCOSITY
PH
FLUID LOSS
SOURCE OF SAMPLE
RM @ MEAS. TEMP
RMF @ MEAS. TEMP
RMC @ MEAS. TEMP
SOURCE OF RMF
SOURCE OF RMC
RM @ BHT
TIME SINCE CIRC.
MAX. REC. TEMP.
EQUIP. LOCATION
RECORDED BY
WITNESSED BY
MUD DATA
CASING
RUN NO. 1 2 3
FROM 0.00
TO 50.30
SIZE 6.000
WEIGHT
GRADE
TYPE JOINT
DEPTH DRILLER 50.30
DEPTH LOGGER 50.30
BTM. LOG INTERVAL 50.30
TOP LOG INTERVAL 0.00
CASING DRILLER 0.00
CASING LOGGER 0.00
BIT SIZE 0.00
TYPE FLUID
DENSITY
LEVEL
SOURCE OF SAMPLE
RM @ MEAS. TEMP
RMF @ MEAS. TEMP
RMC @ MEAS. TEMP
SOURCE OF RMF
SOURCE OF RMC
RM @ BHT
TIME SINCE CIRC.
MAX. REC. TEMP.
EQUIP. LOCATION
RECORDED BY
WITNESSED BY
COAL QUALITY LOG INTERVALS
REMARKS
LOG SCALE GAMMA RAY L.S. DENSITY
SONDE TYPE COMPENSATED FORMATION SONIC
LOG SCALE GAMMA RAY L.S. DENSITY
COAL QUALITY LOG
BPB COAL QUALITY LOG
DEPTH
GAMMA RAY
COAL BULK DENSITY
HOLE SIZE CORRECTION DATA
API
g/cc
6000
150
2.50
14
16
18
20
21
28
30
32
34
36
38
40
42
44
46
48
BOREHOLE 272-19
CLIENT Syncrude Canada
AREA Carmacks
COUNTRY Canada
COAL QUALITY LOG

COAL LITHOLOGY LOG

BPB Instruments

LOG SUITE: GAMMA RAY / L.S. DENSITY / CALIPER

SONDE TYPE COMBINATION SERIES

SONDE COMBINATION: 10

SERIAL NO.: 1

BOREHOLE DATA
- DRILLER'S DEPTH: 65.23m
- LOGGER'S DEPTH: 65.23m
- CASING SIZE: 6" OD to 15m; 4" OD to 65.23m
- CASING WGT: 9.3 lb/ft
- MUD WGT: 9.3 lb/ft
- MUD VISC: 52 sec
- MUD PH: 9.5
- MEASUREMENTS FROM: Ground Level
- ELEVATION OF K.B.: 0m
- ELEVATION OF D.F.: 0m
- ELEVATION OF G.L.: 0m

SERVICE DATA
- FLUID DATA: WATER
- OPERATION DATA: FIRST READING; LAST READING; TOTAL FOOTAGE LOGGED; RECORDED BY; WITNESSED BY

BOREHOLE: 079-17
CLIENT: Cygnus Anvil
AREA: Carmacks
COUNTRY: Canada
DATE LOGGED: 29/9/79
LATITUDE: 62° 4' 30" N
LONGITUDE: 136° 16' 30" W

EQUIPMENT AND RECORDING DATA

COAL COMBINATION SONDE

LOG	EQUIPMENT			TAPING			PANEL		CAL CODES	DEPTHS			SEAM LOG RUN
	SONDE	SOURCE	CALIBRATION	LOG TAPED	RECORD SPEED	DIRECT'N REPLAY	SPEED	TC SECS	NORM	FROM	TO	REMARKS	
GAMMA RAY	119			Y	9	D	9	1	1.5%	64	0		Y
DENSITY				Y	9	D	9	1/3	7.38	65	1		Y
CALIPER	SIDEWALL POSITION			Y	9	D	9	1/3	-	65	1		Y

COAL QUALITY/SEAM THICKNESS LOG INTERVALS (Refer to relevant log)

FROM	48	21	INTERVAL TOTAL
TO	28	16	
INTERVAL	20	7	27m

ADDITIONAL SONDES RUN

SONDE	LOG	GENERAL SCALE	DETAIL LOG SCALE
18	M-N	1:100	
106	DIP		

REFER TO ADDITIONAL HEADINGS

REMARKS

Depth error in repeat section of coal lithology log.

BPB COAL LITHOLOGY LOG

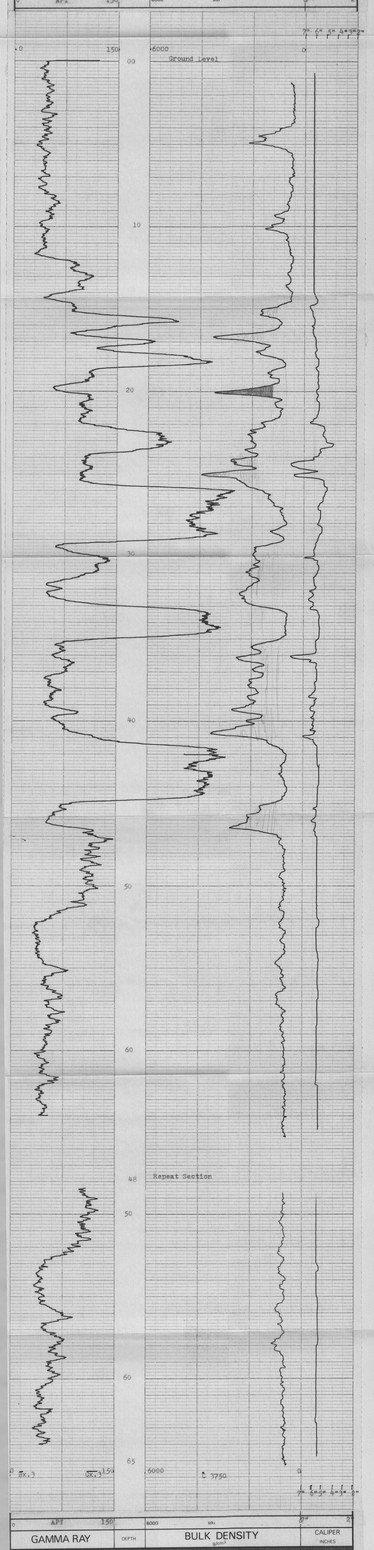
CALIBRATION DATA

JIG No: 897 @ 2 DIAM | JIG CAL DATE: 25/9/79 | JIG VALUE: 1750 SDU @ g/cm³ | 7 = 895 cps
JIG MARK SHOWN AT ABOVE VALUE: 8.3 | JIG No: | SPAN: 6000 | NORM: 84-7.30 | 2 = 460 cps

GAMMA RAY — DEPTH — BULK DENSITY (g/cm³) — CALIPER (INCHES)

HOLE SIZE CORRECTION DATA





GAMMA RAY — DEPTH — BULK DENSITY (g/cm³) — CALIPER (INCHES)

BOREHOLE: 079-17 | AREA: Carmacks
CLIENT: Cygnus Anvil | COUNTRY: Canada

COAL LITHOLOGY LOG

AUT A30341-E

NEUTRON-NEUTRON LOG

BOREHOLE C79-17
CLIENT Cyprus Anvil

AREA Carmacks
COUNTRY Canada
DATE LOGGED 29/9/79

DEPTH SCALE 1:100

3 OF 4 LOGS

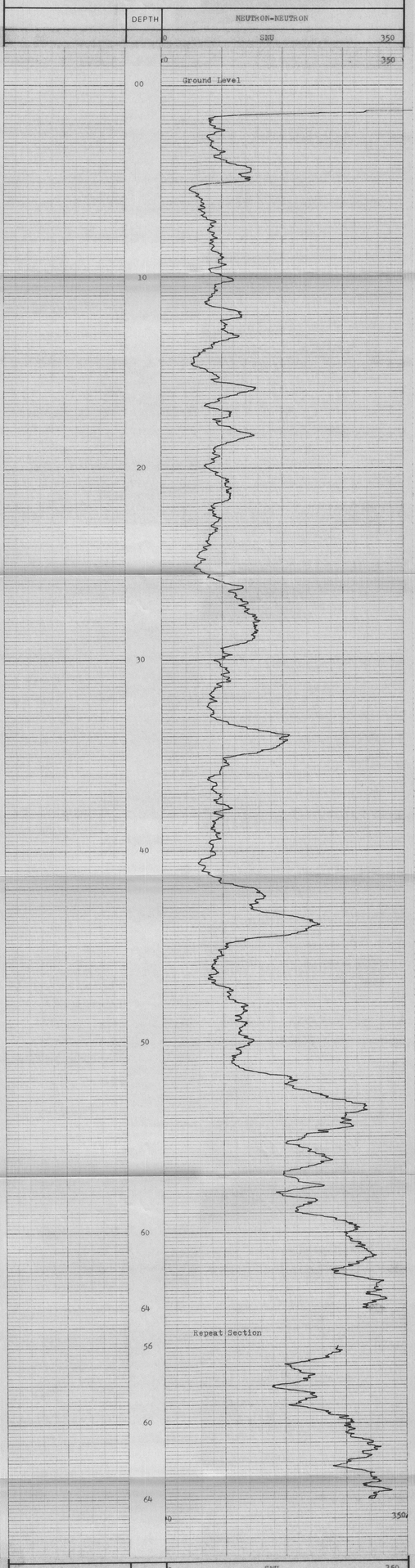
BOREHOLE DATA REFER TO Lithology LOG
OPERATION DATA REFER TO Lithology LOG

EQUIPMENT AND RECORDING DATA

LOG	TAPING	PANEL	CAL COEFF
N-N	1	2	.68

LOG TAPING	RECORDING SPEED	SPEED	SPEED NO	SPEED SECS	NORM
N-N	9	9	2	2	.68

REMARKS

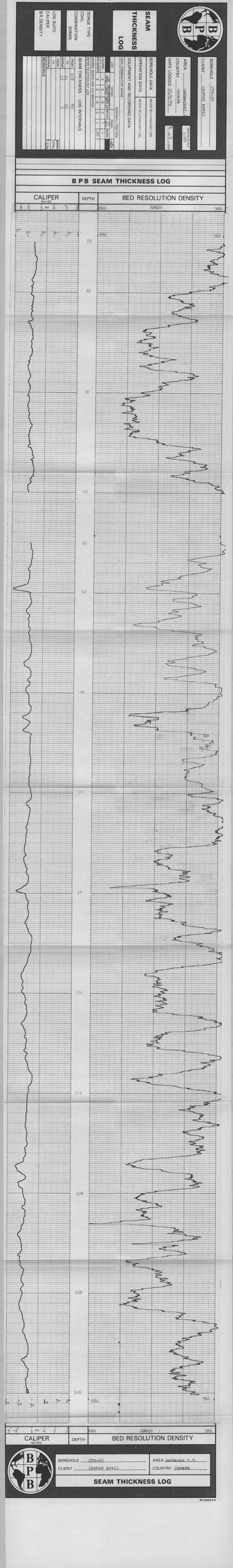


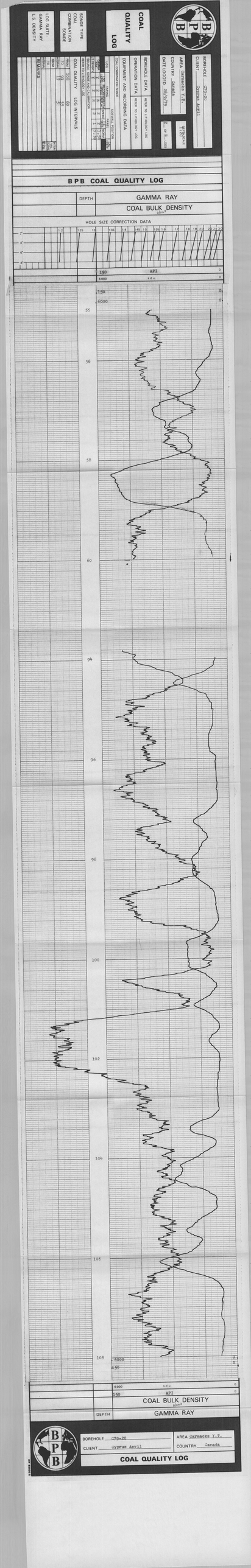
BOREHOLE C79-17
CLIENT Cyprus Anvil

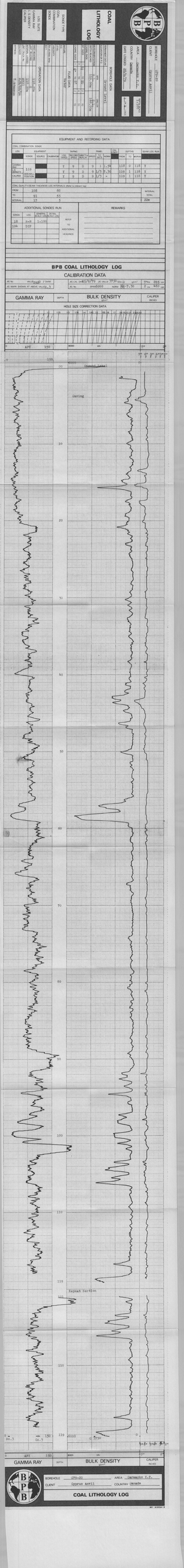
AREA Carmacks
COUNTRY Canada

MY 95160 R

ELECTROLOG - CS-79-20 (4 of 4 logs)


SEAM THICKNESS LOG
BPB
SONDE TYPE
COAL COMBINATION SONDE
LOG SUITE
CALIPER
BR DENSITY
SEAM THICKNESS LOG INTERVALS
FROM
TO
MATERIAL
REMARKS
BOREHOLE DATA
OPERATION DATA
EQUIPMENT AND RECORDING DATA
BOREHOLE D79-20
CLIENT Cyprus Anvil
AREA Carmacks Y.T.
COUNTRY Canada
DATE LOGGED 30/3/79
SEAM THICKNESS LOG
CALIPER
DEPTH
BED RESOLUTION DENSITY
660
SBRD9
360
55
56
58
60
91
92
94
96
98
100
102
104
106
108
BPB SEAM THICKNESS LOG
BOREHOLE D79-20
CLIENT Cyprus Anvil
AREA Carmacks Y.T.
COUNTRY Canada
SEAM THICKNESS LOG


COAL QUALITY LOG
BPB
SONDE TYPE
GAMMA RAY
L.S. DENSITY
LOG SUITE
GAMMA RAY
L.S. DENSITY
COAL QUALITY COMBINATION SONDE
COAL QUALITY LOG INTERVALS
BOREHOLE DATA
OPERATION DATA
EQUIPMENT AND RECORDING DATA
BOREHOLE C79-20
CLIENT Cyprus Anvil
AREA Carmacks Y.T.
COUNTRY Canada
DATE LOGGED 28/8/79
2. or 3. LOGS
GAMMA RAY
COAL BULK DENSITY
DEPTH
HOLE SIZE CORRECTION DATA
API
g/cm³
REMARKS
BPB COAL QUALITY LOG
55
56
58
60
94
96
98
100
102
104
106
108


COAL LITHOLOGY LOG
BPB
BOREHOLE 079-20
CLIENT Cyprus Anvil
AREA Carmacks Y.T.
COUNTRY Canada
EQUIPMENT AND RECORDING DATA
CALIBRATION DATA
GAMMA RAY
BULK DENSITY
CALIPER
HOLE SIZE CORRECTION DATA
Opening Logs!
Casing
Repeat Section
COAL LITHOLOGY LOG

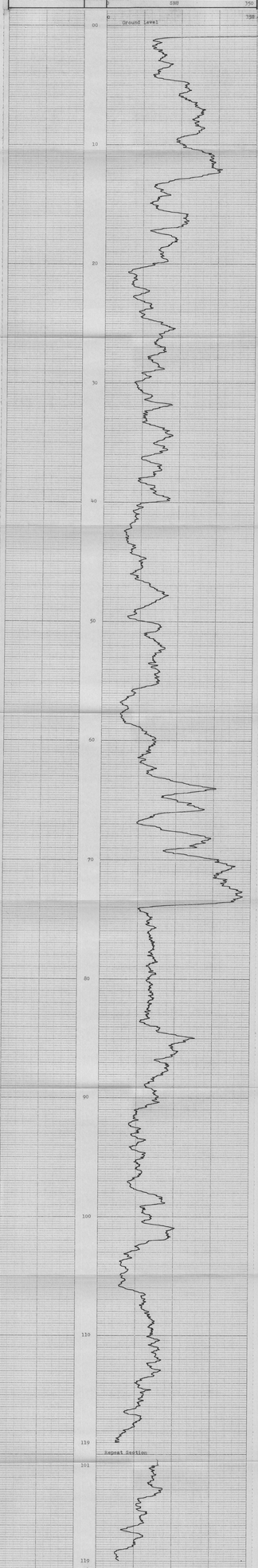
NEUTRON-NEUTRON LOG

BOREHOLE 079-20
CLIENT Cyprus Anvil
AREA Carmacks Y.T.
COUNTRY Canada
DATE LOGGED 28/9/79

BOREHOLE DATA
RECORD Lithology
OPERATION DATA
RECORD Lithology
EQUIPMENT AND RECORDING DATA

LOG	TYPE	DEPTH	SCALE	FACTOR

REMARKS

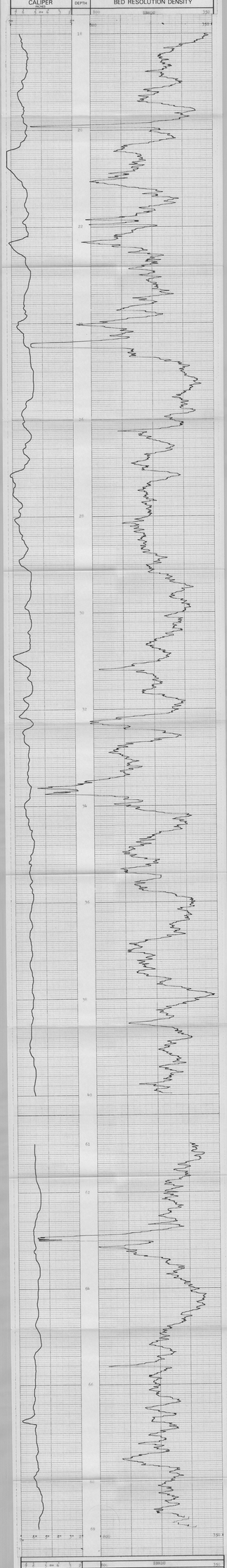


BOREHOLE 079-20
CLIENT Cyprus Anvil
AREA Carmacks Y.T.
COUNTRY Canada

ELECTROLOG - CS-79-22 (4 of 4 logs)

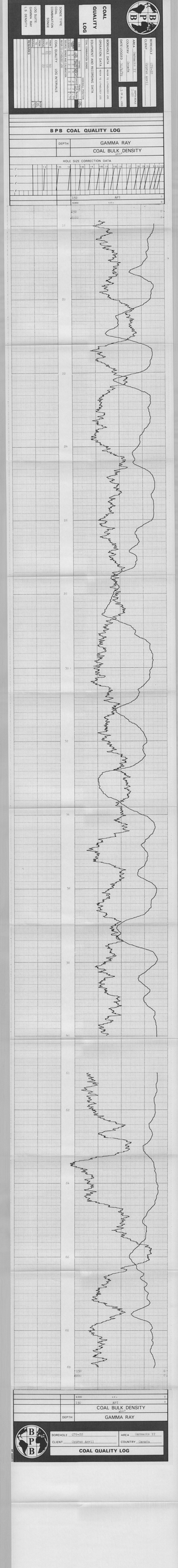
BOREHOLE 279-22
CLIENT Cyprus Anvil
AREA Gamsekke T2
COUNTRY Canada
DATE LOGGED 15/4/79
DEPTH 69.5m
SEAM THICKNESS LOG
SONIC TYPE COAL COMBINATION SONDE
BULK DENSITY CALIPER B.R. DENSITY
BOREHOLE DATA
WATER TO THICKNESS OD
OPERATION DATA
WATER TO THICKNESS OD
EQUIPMENT AND RECORDING DATA
COAL COMBINATION SONDE
SEAM THICKNESS LOG INTERVALS
FROM 0 TO 69
FROM 0 TO 69
FROM 0 TO 69
FROM 0 TO 69
FROM 0 TO 69
FROM 0 TO 69
FROM 0 TO 69
FROM 0 TO 69
REMARKS

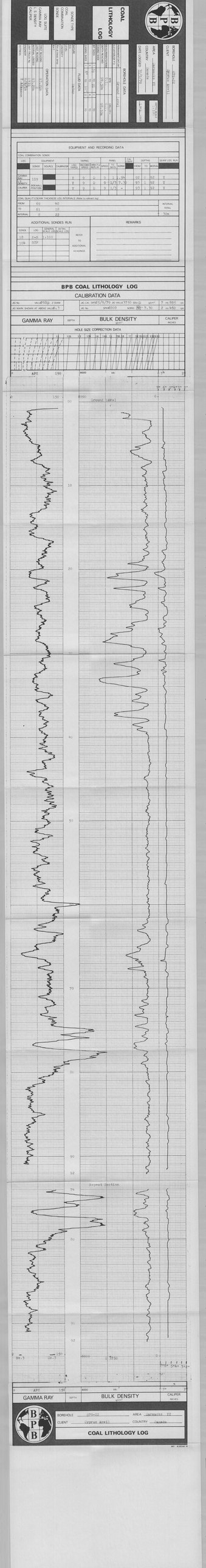
B P B SEAM THICKNESS LOG



BOREHOLE 279-22
CLIENT Cyprus Anvil
AREA Gamsekke T2
COUNTRY Canada

SEAM THICKNESS LOG

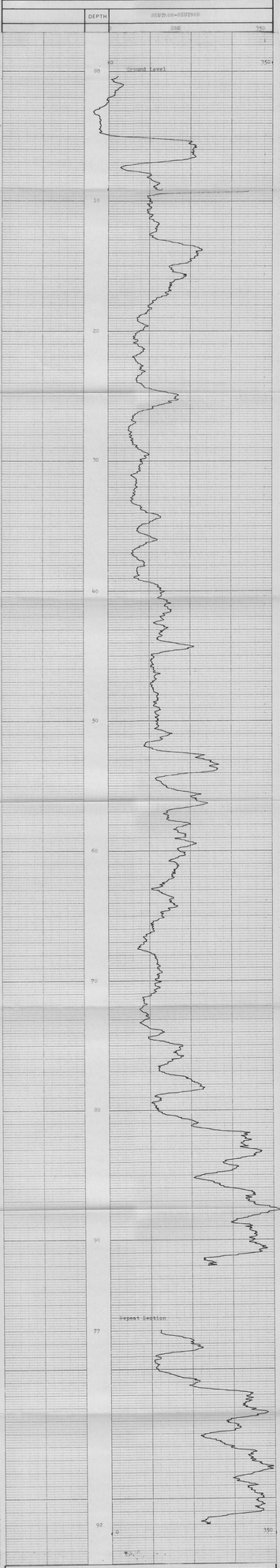

BPB COAL QUALITY LOG
DEPTH
GAMMA RAY
COAL BULK DENSITY
HOLE SIZE CORRECTION DATA
COAL QUALITY LOG
BOREHOLE
CLIENT
AREA
COUNTRY
DATE LOGGED
BOREHOLE DATA
OPERATION DATA
EQUIPMENT AND RECORDING DATA
COAL QUALITY LOG INTERVALS
SCALE
LOG SUITE
GAMMA RAY
L.S. DENSITY
RECORDING
COAL QUALITY LOG
BOREHOLE
CLIENT
AREA
COUNTRY
DATE LOGGED
COAL BULK DENSITY
GAMMA RAY
BOREHOLE
CLIENT
AREA
COUNTRY
COAL QUALITY LOG


COAL LITHOLOGY LOG
BPB
BOREHOLE
CLIENT
AREA
COUNTRY
DATE LOGGED
OPERATOR DATA
BOREHOLE DATA
FLUID DATA
LOG SUITE
SONDE TYPE
EQUIPMENT AND RECORDING DATA
CALIBRATION DATA
HOLE SIZE CORRECTION DATA
GAMMA RAY
BULK DENSITY
CALIPER
Ground Level
Airmet Section
COAL LITHOLOGY LOG

NEUTRON-NEUTRON LOG

BOREHOLE C79-22
CLIENT Cyprus Anvil
AREA Carmacks Y.T.
COUNTRY Canada
DATE LOGGED 30/6/79
RUN NO. 1
ZERO LEVEL 0.0m

BOREHOLE DATA
MEASURED FROM Ground level
LOG MEASURED FROM Ground level
OPERATION DATA
MEASURED Lithology log
EQUIPMENT AND RECORDING DATA
LOG Y
DEPTH SCALE 1:200
TIME CONSTANT 1 sec
SPEED 10 m/min
PANEL 1
MODEL NO. 1
SERIAL NO. 1
FAULT
LOG NO.
DATE 30/6/79
REMARKS



0 SNU 350
DEPTH NEUTRON-NEUTRON

BOREHOLE C79-22
CLIENT Cyprus Anvil
AREA Carmacks YT
COUNTRY Canada

MY 81108

ELECTROLOG - CS-79-24 (4 of 4 logs)

SEAM THICKNESS LOG

SONDE TYPE: COAL COMBINATION SONDE

LOG SUITE: CALIPER B.R. DENSITY

BOREHOLE C79-24
CLIENT Cyprus Anvil

AREA Carmacks YT
COUNTRY Canada
DATE LOGGED 30/9/79

DEPTH SCALE 1:20
4 OF 4 LOGS

BOREHOLE DATA	REFER TO LITHOLOGY LOG
OPERATION DATA	REFER TO LITHOLOGY LOG
EQUIPMENT AND RECORDING DATA	
COAL COMBINATION SONDE	
SIDEWALL POSITION	

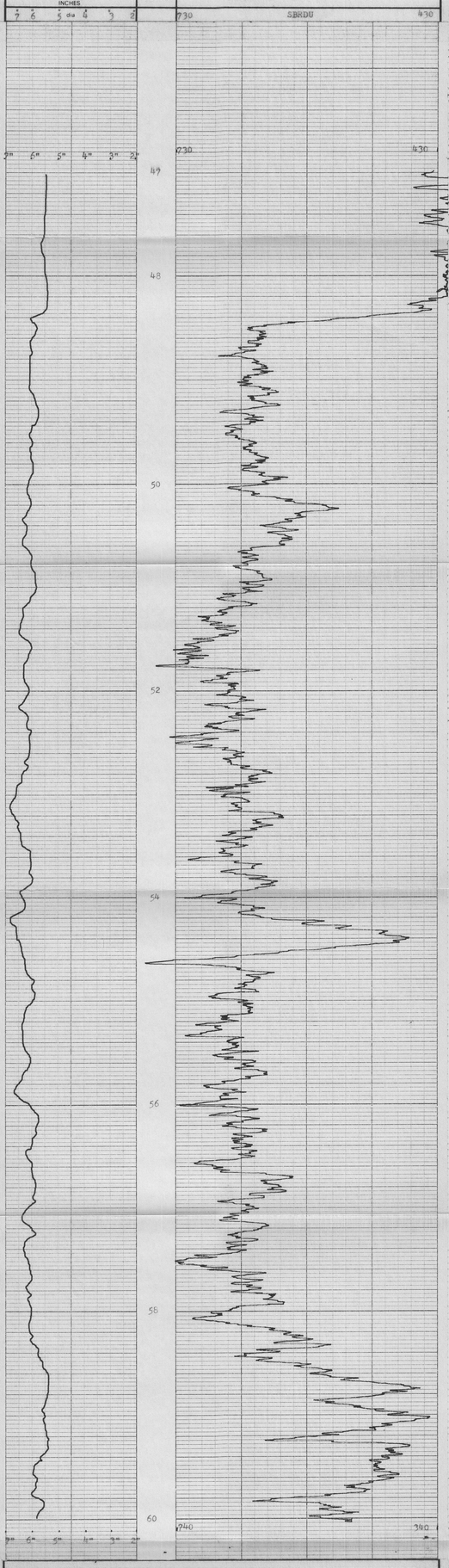
LOG	TAPING				PANEL				CAL COEFF
	LOG TAPE	RECORDING SPEED	DIRECTION	SPEED	TYPE	SECS	NORM		
CALIPER	Y	2	R	2	1	-			
B.R. DENSITY	Y	2	R	2	1	.66			

SOURCE: SONDE AND CALIBRATION
REFER TO LITHOLOGY LOG

SEAM THICKNESS LOG INTERVALS

FROM	60		
TO	47		
INTERVAL	13		
FROM		INTERVAL	
TO		TOTAL	
INTERVAL			
REMARKS			

B P B SEAM THICKNESS LOG



CALIPER
INCHES
DEPTH
BED RESOLUTION DENSITY

BOREHOLE C79-24
CLIENT Cyprus Anvil
AREA Carmacks YT
COUNTRY Canada

SEAM THICKNESS LOG

MY 88002 R

BPB

COAL QUALITY LOG

SONDE TYPE
COAL COMBINATION SONDE

LOG SUITE
GAMMA RAY
L.S. DENSITY

BOREHOLE 079-24
CLIENT Cyprus Anvil

AREA Carmacks YT
COUNTRY Canada
DATE LOGGED 30/9/79

DEPTH SCALE 1:250

1 OF 1 LOGS

BOREHOLE DATA
OPERATION DATA
EQUIPMENT AND RECORDING DATA

REFER TO LITHOLOGY LOG

LOG	GAMMA	L.S. DENSITY	
RUN	1	1	
DATE	30/9/79	30/9/79	
TIME	1300	1300	
TAPE	1	1	
DEPTH DRILLER	60m	60m	
DEPTH LOGGER	60m	60m	
BOTTOM LOGGED INTERVAL	60m	60m	
TOP LOGGED INTERVAL	0	0	
CASING DRILLER	0	0	
CASING LOGGER	0	0	
BIT SIZE	6"	6"	
TYPE FLUID IN HOLE	WATER	WATER	
DENSITY			
VISCOSITY			
PH			
FLUID LOSS			
SOURCE			
RM @ MEAS. TEMP.			
RMF @ MEAS. TEMP.			
RMC @ MEAS. TEMP.			
SOURCE RMF & RMC			
RM @ BHT			
TIME CIRC. STOPPED			
TIME LOGGER ON BOTTOM			
MAX. REC. TEMP.			
EQUIP. LOCATION			
RECORDED BY			
WITNESSED BY			

COAL COMBINATION SONDE

SIDEWALL POSITION

CALIPER 6" 8" 10" 12" 14" 16" 18" 20" 22" 24" 26" 28" 30" 32" 34" 36"

REFER TO LITHOLOGY LOG

COAL QUALITY LOG INTERVALS

	FROM	TO
	60	47
	47	11

REMARKS

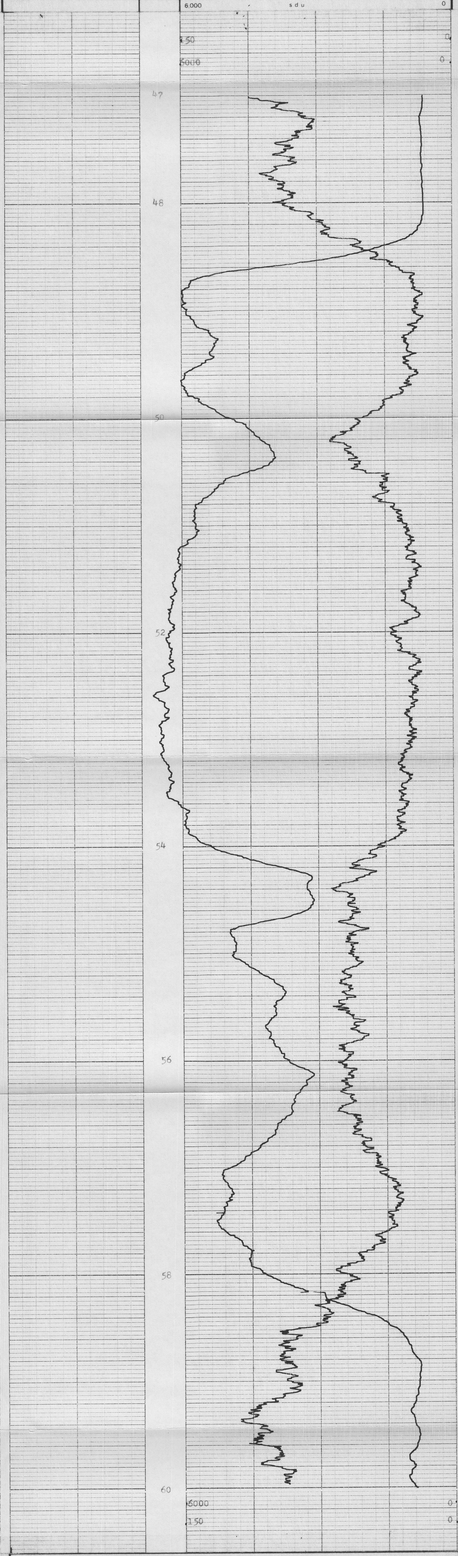
BPB COAL QUALITY LOG

DEPTH
GAMMA RAY
COAL BULK DENSITY g/cm³

HOLE SIZE CORRECTION DATA

1.2 1.25 1.3 1.35 1.4 1.45 1.5 1.55 1.6 1.7 1.8 1.9 2.0 2.2 2.4 3.0
2" 4" 6" 8"

150 API 0
6.000 s d u 0



6.000 s d u 0
150 API 0
COAL BULK DENSITY g/cm³
DEPTH GAMMA RAY

BPB
BOREHOLE 079-24
CLIENT Cyprus Anvil
AREA Carmacks YT
COUNTRY Canada
COAL QUALITY LOG

MK 6/2023 R

BPB

COAL LITHOLOGY LOG

LOG SUITE: L.S. DENSITY GAMMA RAY CALIPER

SONDE TYPE COMBINATION SONDE

BOREHOLE: 379-24
CLIENT: Cyprus Anvil
AREA: Carmacks YT
COUNTRY: Canada
DATE LOGGED: 7/4/79
LOGGING ENGINEER: J. Bellis
RECORDING ENGINEER: J. Bellis
DRILLING CONTRACTOR: Bradley Bros.
DRILLING METHOD: Rotary
DRILLING FLUID: Water
DRILLER'S TD: 70m
LOGGER'S TD: 70m
PERMANENT DATUM: Ground level
ELEVATION OF P.D.: 0
LOG MEASURED FROM: Ground level
DRILLING MEASURED FROM: Ground level
CASING SIZES: 1: 6" FROM 0 TO 10m; 2: 4" FROM 0 TO 70m
CASING FLOOR: 1: 10m; 2: 70m
BIT SIZES: 1: 6" FROM 10m TO 70m
DATE/TIME REACHED: 1: 7/4/79 AT 1300; 2: 7/4/79 AT 1330
RUN NO.: 1
TYPE OF FLUID IN HOLE: Water
FLUID LEVEL: Full
MAX. REC. TEMP.: 25°C
VISCOSITY: 35s
SOURCE: Natural
RECORDED BY: J. Bellis
WITNESSED BY: Repeat Section
LOGGING UNIT: Metric
SCALE: 1:150

EQUIPMENT AND RECORDING DATA

COAL COMBINATION SONDE

LOG	EQUIPMENT: SONDE	EQUIPMENT: SOURCE	EQUIPMENT: CALIBRATOR	TAPING: LOG TAPES	TAPING: RECORD SPEED	TAPING: DIRECT/REPLAY	PANEL: SPEED	PANEL: TC SECS	PANEL: NORM	CAL SIGNAL	DEPTHS: FROM	DEPTHS: TO	SEAM LOG RUN: RESPUN
GAMMA RAY	110			1	9	D	9	1	1.5M		69	1	Y
DENSITY	BOREHOLE POSITION			1	9	D	9	1/FAST			70	1	Y
CALIPER				1	9	D	9	1/3	-		70	1	Y

COAL QUALITY/SEAM THICKNESS LOG INTERVALS (Refer to relevant log)

FROM	60
TO	69
INTERVAL	13

INTERVAL TOTAL: 13m

ADDITIONAL SONDES RUN

SONDE	LOG	GENERAL SCALE LOG	DETAIL SCALE LOG
18	3-11	1:100	
109	DIP		

REFER TO ADDITIONAL HEADINGS

REMARKS

BPB COAL LITHOLOGY LOG

CALIBRATION DATA

JIG No. VALUE 20 @ 2 DAM

JIG MARK SHOWN AT ABOVE VALUE 4.3

JIG CAL DATE 25/9/79 JIG VALUE 1750 SDU @ g/cm³ 7 yrs 895 cps

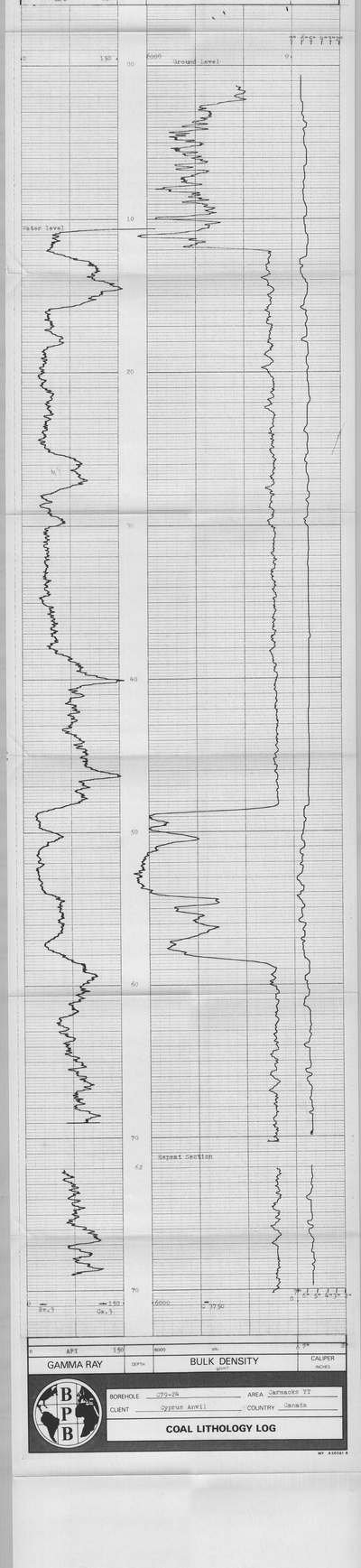
JIG No. SPAN 6000 NORM Rev 7.30 2 yrs 460 cps

GAMMA RAY	DEPTH	BULK DENSITY g/cm³	CALIPER INCHES

HOLE SIZE CORRECTION DATA



0 API 150 | 6000 sdu | 1 7/8" g/cm³



GAMMA RAY	DEPTH	BULK DENSITY g/cm³	CALIPER INCHES

BPB

BOREHOLE 379-24 AREA Carmacks YT

CLIENT Cyprus Anvil COUNTRY Canada

COAL LITHOLOGY LOG

MY - A30361 B

NEUTRON-NEUTRON LOG

BOREHOLE C79-24
CLIENT Cyprus Anvil

AREA Carmacks YT
COUNTRY Canada
DATE LOGGED 30/9/79

DEPTH SCALE 1:100
2 of 4 (0)

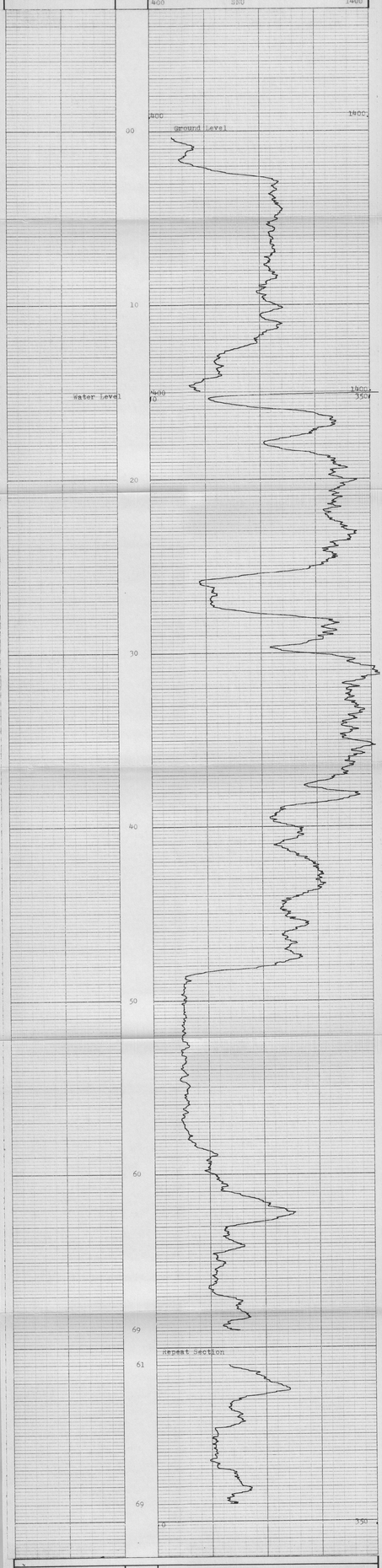
BOREHOLE DATA — REFER TO Lithology LOG
OPERATION DATA — REFER TO Lithology LOG

EQUIPMENT AND RECORDING DATA

LOG	TAPING				PANEL	CAL.
	FLUID	SPEED	SCALE		NORM	LOG
N-N	Y	9	D	9	1	.68

SCALE			
1:100	18	2479	

REMARKS
Scale changed at 15 metres.

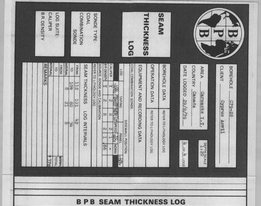


		0 SNU	350
	DEPTH	NEUTRON-NEUTRON	

BOREHOLE C79-24
CLIENT Cyprus Anvil
AREA Carmacks YT
COUNTRY Canada

MT A584538

ELECTROLOG - CS-79-28 (4 of 4 logs)

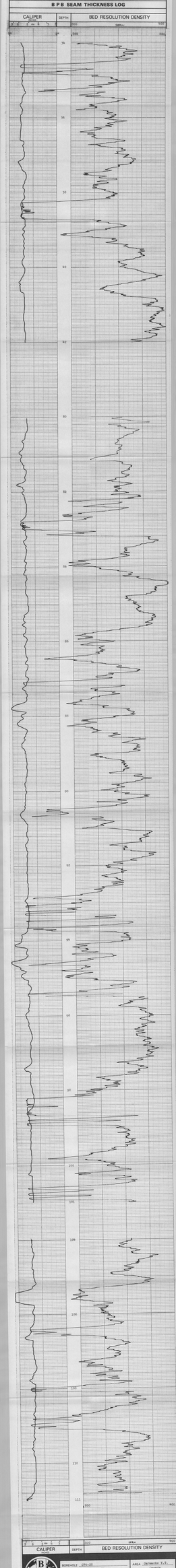


B P B SEAM THICKNESS LOG

CALIPER

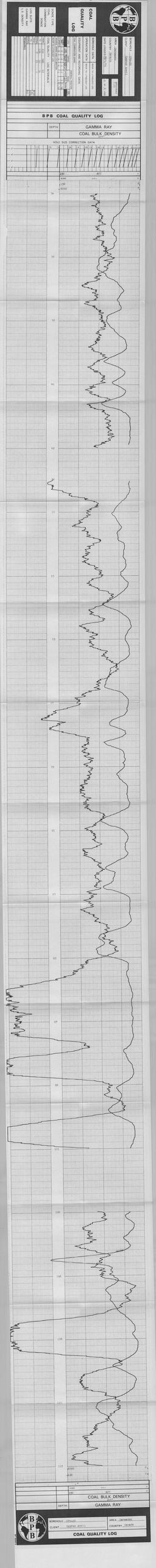
DEPTH

BED RESOLUTION DENSITY



2 3 4 5 6 7
CALIPER
INCHES
DEPTH
2000
2500
GRAM/CC
BED RESOLUTION DENSITY

B P B
BOREHOLE 127-22
CLIENT Cyprus Anvil
AREA Somerset E.T.
COUNTRY Jamaica
SEAM THICKNESS LOG



BPB COAL QUALITY LOG
DEPTH
GAMMA RAY
COAL BULK DENSITY
HOLE SIZE CORRECTION DATA
COAL QUALITY LOG
BOREHOLE
CLIENT
COAL BULK DENSITY
GAMMA RAY
BOREHOLE
CLIENT
COAL QUALITY LOG

BPB

COAL LITHOLOGY LOG

BOREHOLE CPP-20
CLIENT Cygnus Am#11
AREA Cameron
COUNTRY Canada

EQUIPMENT AND RECORDING DATA

COAL COMBINATION SONDE

LOG No.	EQUIPMENT SONDE	EQUIPMENT SOURCE	SUBMARINE	TAPING LOG LOCAL	TAPING RECORDED DEPTH	TAPING DEPTH UNITS	PANEL SPEED	PANEL % NORM	CAL. LOG	DEPTHS FROM	DEPTHS TO	DEPTHS REMARKS	BEAM LOG RUN
COMBO 139				T	9	9	9	1	1.5M	113	9	113	T
GR/CL				T	9	9	9	2/3	2.5M	114	1	113	T
CALIPER	SIDEWALL PDT-A			T	9	9	9	2/3	"	114	1	113	T

COAL SEAM LITHOLOGY THICKNESS LOG INTERVALS (Refer to relevant log)

				INTERVAL TOTAL
FROM	112	101	42	
TO	106	80	34	
INTERVAL	6	21	8	37m

ADDITIONAL SONDES RUN

SONDE	LOG No.	DEPTH TO LOG
18	8x8	1100
106	010	

DEPTH TO ADDITIONAL HEADINGS

REMARKS

BPB COAL LITHOLOGY LOG

CALIBRATION DATA

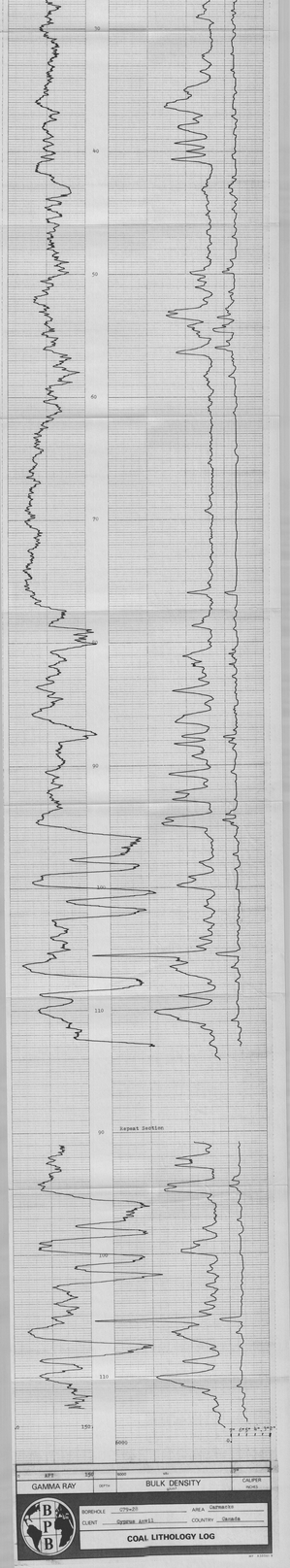
RES.	VALUE 20Ω @ 2.0kHz	AT CAL DEPTH 779	AT VALUE 1250	SENSOR	8" dia 895 cps
AT MAIN SONDE AT ABOVE VALUE R = 1		ZERO SETTING 6000	SENSOR 280	7.50	8" dia 980 cps

GAMMA RAY — DEPTH — BULK DENSITY — CALIPER INCHES

HOLE SIZE CORRECTION DATA



APP — NEAR — FAR — BULK DENSITY — CALIPER



GAMMA RAY — DEPTH — BULK DENSITY — CALIPER INCHES

BOREHOLE CPP-20
CLIENT Cygnus Am#11
AREA Cameron
COUNTRY Canada

COAL LITHOLOGY LOG

NEUTRON-NEUTRON LOG

BOREHOLE G79-28
CLIENT Syncrude Anvil

AREA Carmacks
COUNTRY Canada
DATE LOGGED 29/9/79

OVERALL SCALE 1:100

3.0-4.0

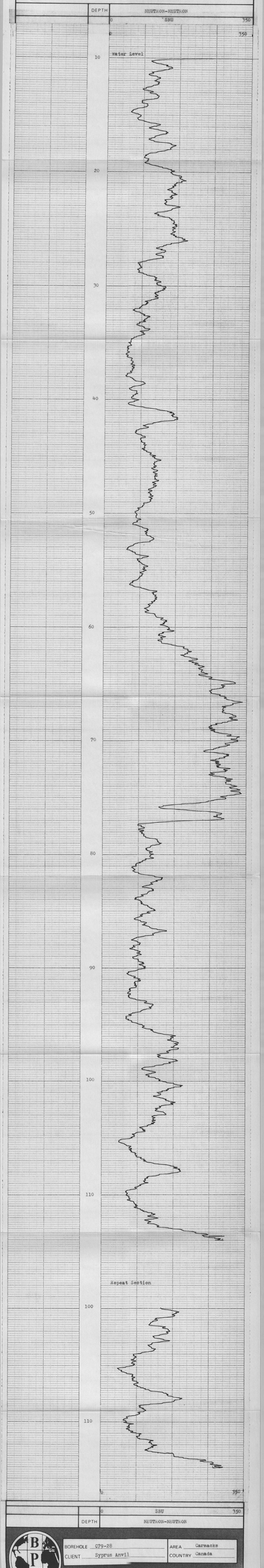
OPERATION DATA
RECORDED BY Lithology LOG
EDITED BY Lithology LOG

EQUIPMENT AND RECORDING DATA

LOG	TRANS	PANEL	LOG
Neut-Neut	1	1	Neut-Neut
	2	2	
	3	3	
	4	4	
	5	5	
	6	6	
	7	7	
	8	8	

TRANSMITTER		RECEIVER	
Neut	1	Neut	1
	2		2
	3		3
	4		4

REMARKS



BOREHOLE G79-28
CLIENT Syncrude Anvil
AREA Carmacks
COUNTRY Canada

ELECTROLOG - CS-79-29 (4 of 4 logs)

BPB

BOREHOLE 279-29
CLIENT Gyrus Anvil

AREA Carmacks TT
COUNTRY Canada
DATE LOGGED 30/9/79

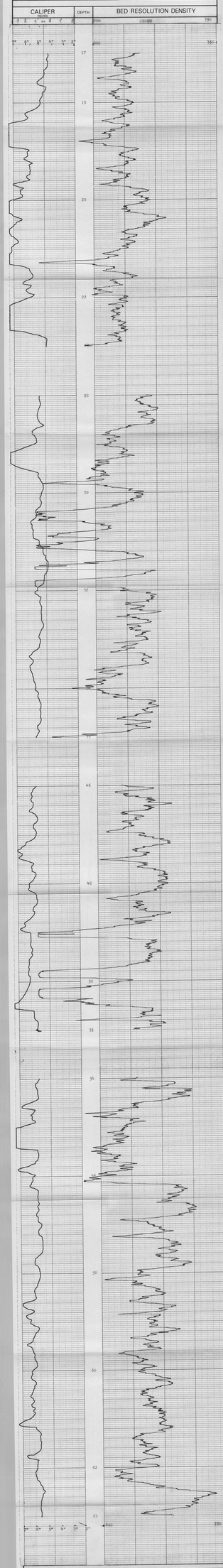
SEAM THICKNESS LOG

SONDE TYPE
COAL COMBINATION SONDE

LOG SUITE
CALIPER
B R DENSITY

BOREHOLE DATA	REFER TO LITHOLOGY LOG
OPERATION DATA	REFER TO LITHOLOGY LOG
EQUIPMENT AND RECORDING DATA	
COAL COMBINATION SONDE	
LOG	SEAM THICKNESS LOG INTERVALS
FROM	63 54 35 23
TO	54 46 28 17
SCALE	1 : 1
DATE	9 5 9 6
DRAWN	
CHECKED	
APPROVED	
DATE	
REMARKS	

B P B SEAM THICKNESS LOG



CALIPER INCHES | DEPTH | BED RESOLUTION DENSITY

BPB

BOREHOLE 279-29
CLIENT Gyrus Anvil
AREA Carmacks TT
COUNTRY Canada

SEAM THICKNESS LOG

BPB

BOREHOLE 279-29
CLIENT Cypress Anvil
AREA Jazwatky TT
COUNTRY Canada
DATE LOGGED 30/6/79
SUPERVISOR 1.120
3. 0.5 ... 0.0

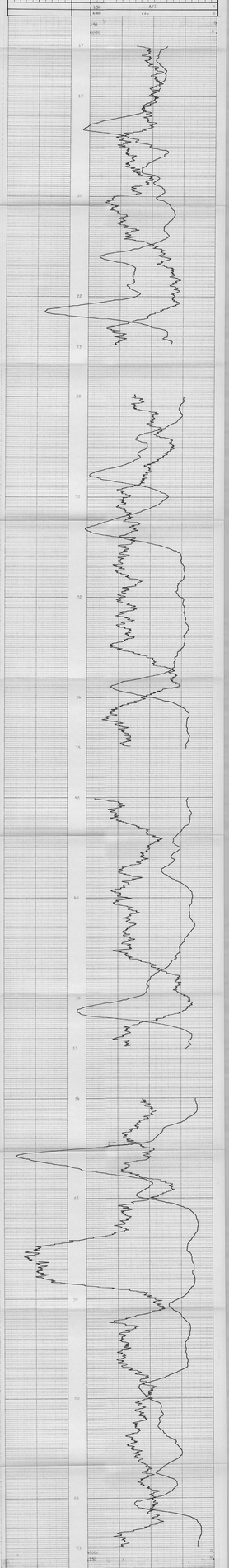
COAL QUALITY LOG

BOREHOLE DATA
OPERATION DATA
EQUIPMENT AND RECORDING DATA
COAL QUALITY LOG INTERVALS
SONDE TYPE
COAL COMBINATION SONDE
LOG SUITE
GAMMA RAY
L.S. DENSITY
TEMPERATURE

BPB COAL QUALITY LOG

DEPTH	GAMMA RAY
	COAL BULK DENSITY

HOLE SIZE CORRECTION DATA



	6000 API
	150
	COAL BULK DENSITY
DEPTH	GAMMA RAY

BPB

BOREHOLE 279-29
CLIENT Cypress Anvil
AREA Jazwatky TT
COUNTRY Canada

COAL QUALITY LOG

BPB

COAL LITHOLOGY LOG

LOG SUITE: GAMMA RAY - BULK DENSITY - CALIPER

SONDE TYPE COMBINATION (SPACE)

LOG TYPE COMBINATION (SPACE)

BOREHOLE: 72-29
CLIENT: Cyprus Anvil
AREA: Carmacks 1:50
COUNTRY: Canada
DATE LOGGED: 30/6/79
RUN NUMBER: ONE
DEPTH DRILLER: 151.5
DEPTH LOGGER: 151.5
BOTTOM LOGGED INTERVAL: 151.5
TOP LOGGED INTERVAL: SURFACE
CASING DRILLER: 11.5
CASING LOGGER: 11.5
BIT SIZE: 6 1/4"
TYPE FLUID IN HOLE: WATER
DENSITY: 1.0
LEVEL: FULL
MAX REC. TEMP. °C: 20
EQUIPMENT NO. LOCATION: 3 KAMLOOPS
RECORDED BY: J. BOSSIE
WITNESSED BY: J. BOSSIE

OPERATION DATA

	RUN NO.	TIME	DATE	DEPTH DRILLER	DEPTH LOGGER	BTM LOGGED INTERVAL	TOP LOGGED INTERVAL	CASING DRILLER	CASING LOGGER	BIT SIZE	TYPE FLUID	DENSITY	LEVEL
STARTED	ONE	11:30	30/6/79	151.5	151.5	151.5	SURFACE	11.5	11.5	6 1/4"	WATER	1.0	FULL
FINISHED	ONE	13:30	30/6/79										

EQUIPMENT AND RECORDING DATA

COAL COMBINATION SONDE

LOG	EQUIPMENT			TAPING		PANEL		CAL. LOG	DEPTHS			SEAM LOG RUN
	SONDE	SOURCE	CALIBRATOR	LOG SHEET	RECORD SPEED	DIRECT DISPLAY	SPEED	TC SECS	NORM	FROM	TO	WORKS
GAMMA RAY	119			Y	5	9	1	1.25		80	1	Y
DENSITY				Y	5	9	1/3	7.5		81	1	Y
CALIPER	SIDEARM POSITION			Y	5	9	1/3	-		81	1	Y

COAL QUALITY/SEAM THICKNESS LOG INTERVALS (Refer to sidearm log)

FROM	63	51	34	23	INTERVAL TOTAL
TO	66	54	38	27	
INTERVAL	3	3	4	4	47m

ADDITIONAL SONDES RUN

SONDE	LOG	GENERAL SCALE	DETAIL LOG SCALE
18	3-81	1:100	
108	DIF		

REFER TO ADDITIONAL HEADINGS

REMARKS

BPB COAL LITHOLOGY LOG

CALIBRATION DATA

JIG No. VALUE 2500 2 DIAM

JIG MARK SHOWN AT ABOVE VALUE 3.3

JIG CAL DATE 7/9/79 JIG VALUE 1750 SOLID g/cm³ 2.65 gm/cc
JIG No. SPAN 6000 NONE 2.30 gm/cc

GAMMA RAY | DEPTH | BULK DENSITY g/cm³ | CALIPER INCHES

HOLE SIZE CORRECTION DATA

API 150 | 6000 m/s | 2.65 gm/cc | 0 in

Ground Level

Repeat Section

API 150 | 6000 m/s | 2.65 gm/cc | 0 in

GAMMA RAY | DEPTH | BULK DENSITY g/cm³ | CALIPER INCHES

BPB

BOREHOLE: 72-29 AREA: Carmacks 1:50
CLIENT: Cyprus Anvil COUNTRY: Canada

COAL LITHOLOGY LOG

M7 A30387

NEUTRON-NEUTRON LOG

BOREHOLE C79-29
CLIENT Cyprus Anvil

AREA Carmacks YT
COUNTRY Canada
DATE LOGGED 30/9/79

DEPTH SCALE 1:100
2 of 4 LOGS

BOREHOLE DATA REFER TO Lithology LOG
OPERATION DATA REFER TO Lithology LOG

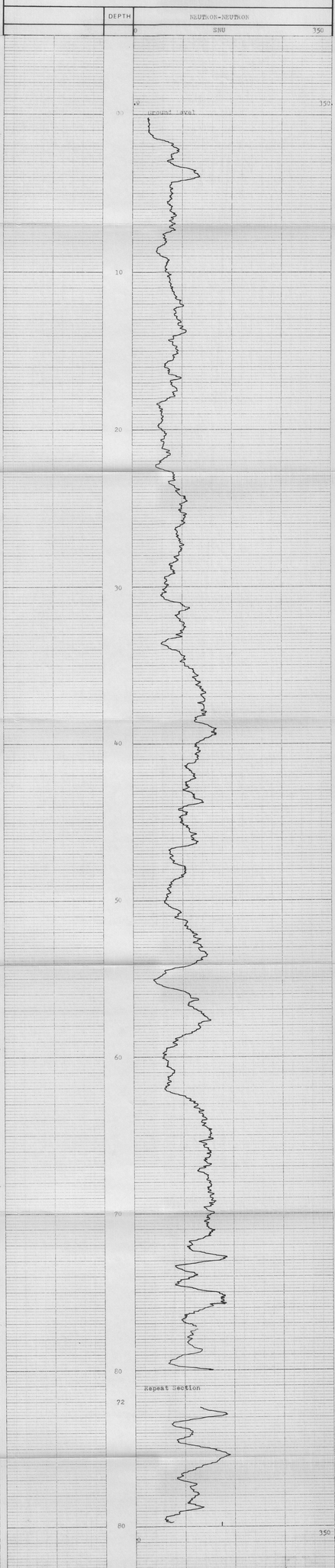
EQUIPMENT AND RECORDING DATA

LOG	TAPING	PANEL	CALIBRATION
N-N	Y 9	D 9	1 .65

LOG	TAPING	SPEED	TYPE	NORM
N-N	Y 9	D 9	1	.65

REMARKS

SCALE	DEPTH	SCALE
0	18	0



	0 SNU 350	
DEPTH	NEUTRON-NEUTRON	

BOREHOLE C79-29
CLIENT Cyprus Anvil
AREA Carmacks YT
COUNTRY Canada

ELECTROLOG - CS-79-32 (4 of 4 logs)

SEAM THICKNESS LOG

SONDE TYPE: COAL COMBINATION SONDE

LOG SUITE: CALIPER B.R. DENSITY

BOREHOLE C79-32
CLIENT Cyprus Anvil

AREA Carmacks YT
COUNTRY Canada
DATE LOGGED 1/10/79

DEPTH SCALE 1:20
4 OF 4 LOGS

BOREHOLE DATA — REFER TO LITHOLOGY LOG
OPERATION DATA — REFER TO LITHOLOGY LOG
EQUIPMENT AND RECORDING DATA
COAL COMBINATION SONDE
SIDEWALL POSITION

LOG	TAPING	RECORDING	PANEL	COAL CODE
CALIPER	1	2	1	1
B.R. DENSITY	2	3	2	1
SOURCE SONDE AND CALIBRATION				

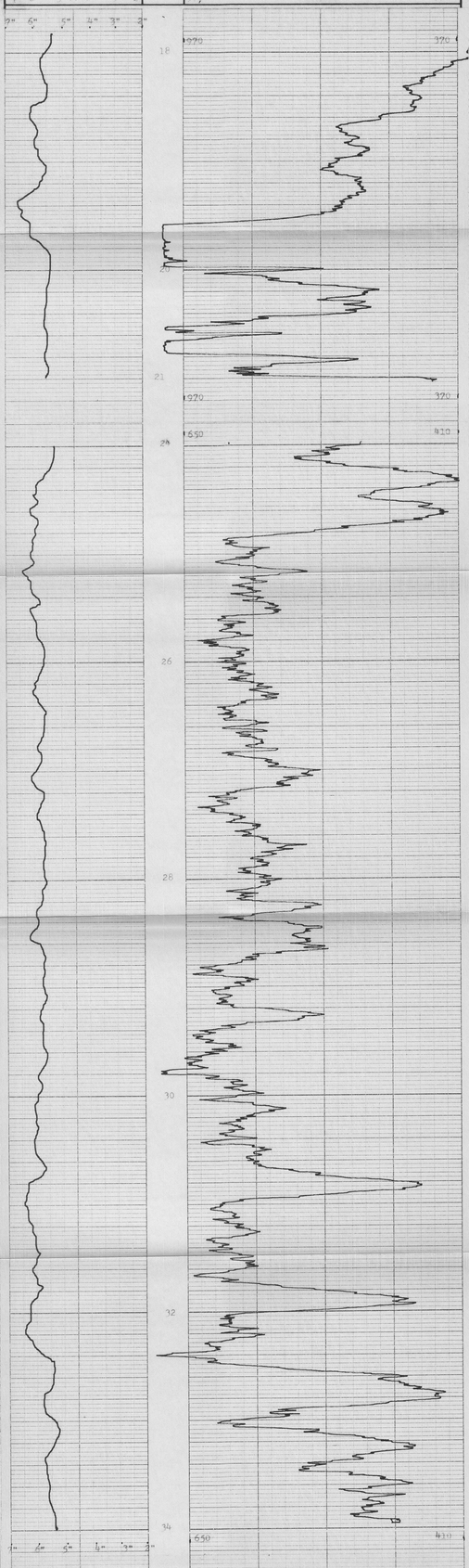
REFER TO LITHOLOGY LOG

SEAM THICKNESS LOG INTERVALS

FROM	34	21
TO	24	18
INTERVAL	10	3
FROM		
TO		
INTERVAL		
INTERVAL TOTAL		$13m

REMARKS

B P B SEAM THICKNESS LOG



BOREHOLE C79-32
CLIENT Cyprus Anvil
AREA Carmacks YT
COUNTRY Canada

SEAM THICKNESS LOG

MY88002R

BPB

COAL QUALITY LOG

BOREHOLE G79-32
CLIENT Cyprus Anvil

AREA Carmacks YT
COUNTRY Canada
DATE LOGGED 1/10/79

DEPTH SCALE 1:20
1 OF 4 LOGS

BOREHOLE DATA	REFER TO LITHOLOGY LOG
OPERATION DATA	REFER TO LITHOLOGY LOG
EQUIPMENT AND RECORDING DATA	
COAL COMBINATION SONDE	

SIDEWALL POSITION

LOG	TAPING		PANEL	
	TAPING	SPECIFIC	SPEC.	NONU
GAMMA RAY	SPEED	SPEED	SPEED	NONU
L.S. DENSITY	1	2	3	4
	1	2	3	4
	1	2	3	4
	1	2	3	4

SOURCE: SONDE AND CALIBRATION
REFER TO LITHOLOGY LOG

COAL QUALITY	LOG INTERVALS
FROM	34
TO	21
INTERVAL	18
FROM	3
TO	
INTERVAL	
REMARKS	

INTERVAL SCALE 1 m

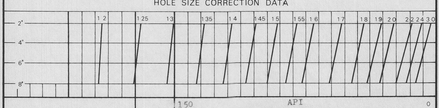
SONDE TYPE: COAL COMBINATION SONDE

LOG SUITE: GAMMA RAY L.S. DENSITY

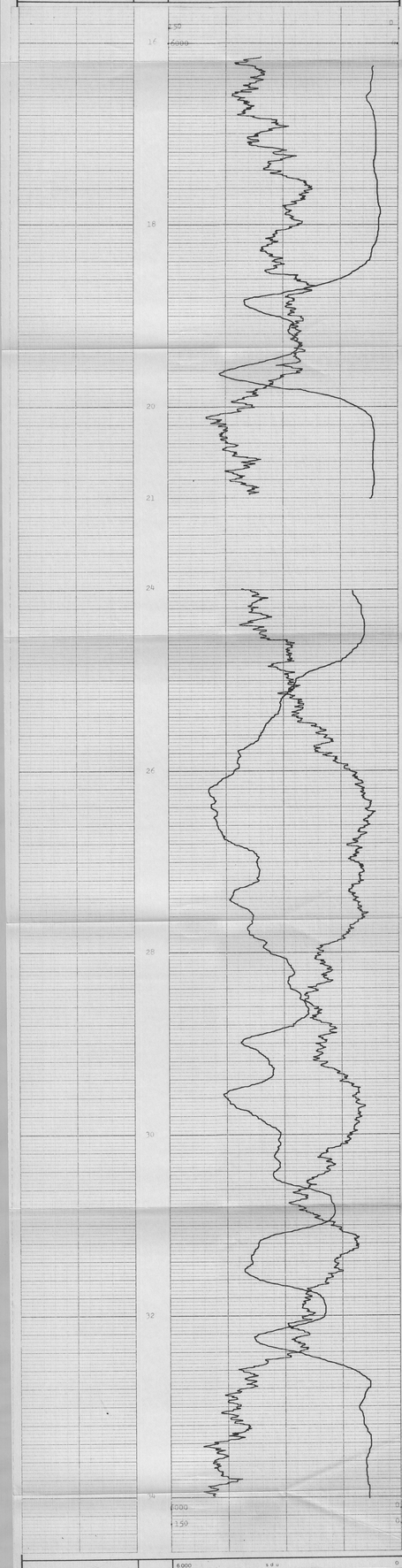
BPB COAL QUALITY LOG

DEPTH	GAMMA RAY
	COAL BULK DENSITY g/cm³

HOLE SIZE CORRECTION DATA



150	API	0
6000	s.d.u.	0



6000	s.d.u.	0
150	API	0
	COAL BULK DENSITY g/cm³	
DEPTH	GAMMA RAY	

BPB

BOREHOLE G79-32
CLIENT Cyprus Anvil
AREA Carmacks YT
COUNTRY Canada

COAL QUALITY LOG

MT 88007 R

COAL LITHOLOGY LOG

BPB

SONDE TYPE: COAL COMBINATION SONDE

LOG SUITE: GAMMA RAY, DENSITY, CALIPER

BOREHOLE: 279-32
CLIENT: Cyprus Anvil
AREA: Carmacks YT
COUNTRY: Canada
DATE LOGGED: 1/10/79
LOG No.: 1
OPERATOR: RWM

BOREHOLE DATA
PERMANENT DATUM: GROUND LEVEL
ELEVATION OF: GROUND LEVEL
DRILLER: 0 TO 52
CASING SIZES: 6" TO 164' 4" TO
BIT SIZES: 4" TO
CASING PIPE: 4" TO
MEASUREMENTS FROM: KELLY BUSHING 5.5m
CASING PIPE: 5.5m
BPB: 5.5m

FLUID DATA
RESISTIVITY: TEMP.
LEVEL:
SALINITY:
VISCOSITY:
PH:
FLUID LOSS:

OPERATION DATA
RIG No.:
LOGGING UNIT No.: 2
LOGGING ENGINEER: P. Adamson
WITNESS:
RUN No.: 1
DEPTH READING: 52.0m
LOGGER'S DEPTH: 52.0m
INTERVAL LOGGED: 52.0m
CASING SHOE: 52.0m
TIME AT BOTTOM: 0815
TIME AT TOP: 0900

EQUIPMENT AND RECORDING DATA

COAL COMBINATION SONDE

LOG	EQUIPMENT: SONDE	SOURCE	CALIBRATOR	TAPPING: LOG TAPED	RECORD SPEED	DIRECT or REPLAY	PANEL: SPEED	T.C. SECS	NORM	CAL CODE	DEPTHS: FROM	TO	INTERVAL	SEAM LOG RUN
GAMMA RAY	119			Y	9	D	9	1	1.54		52	0	52	Y
DENSITY				Y	9	D	9	1	7.20		53	1	52	Y
CALIPER	SIDEWALL POSITION			Y	9	D	9	1/3	-		53	1	52	Y

COAL QUALITY/SEAM THICKNESS LOG INTERVALS (Refer to relevant log)

				INTERVAL TOTAL
FROM	14	21		
TO	24	18		
INTERVAL	10	3		13m

ADDITIONAL SONDES RUN

SONDE	LOG	GENERAL SCALE LOG	DETAIL SCALE LOG
18	N-N	1:100	
104	DIP		
109			

REFER TO ADDITIONAL HEADINGS

REMARKS

BPB COAL LITHOLOGY LOG

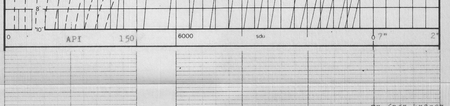
CALIBRATION DATA

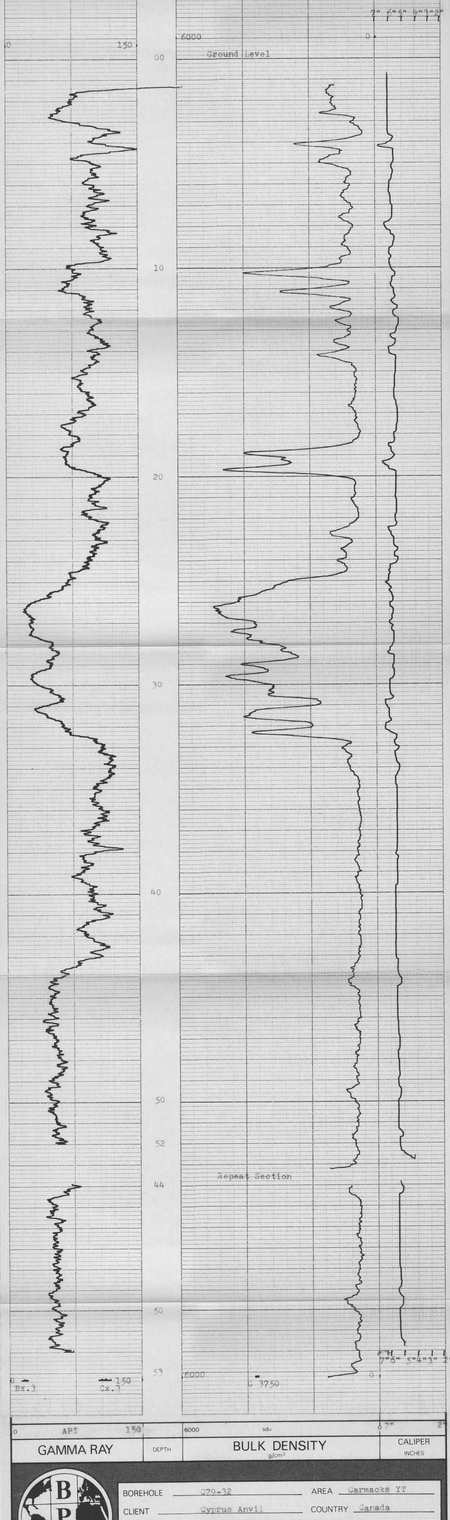
JIG No: VALUE 92 @ 2" DIAM
JIG MARK SHOWN AT ABOVE VALUE: 7

JIG CAL DATE 25/9/79 JIG VALUE 1750 SDU/@ g/cm³ 7 ins 502 cps
JIG No SPAN 6000 NORM 7.20 2 ins 460 cps

GAMMA RAY | DEPTH | BULK DENSITY g/cm³ | CALIPER INCHES

HOLE SIZE CORRECTION DATA





0 | API | 150 | 6000 | sdu | 0 | 7" | 2"

GAMMA RAY | DEPTH | BULK DENSITY g/cm³ | CALIPER INCHES

BPB

BOREHOLE: 279-32 AREA: Carmacks YT
CLIENT: Cyprus Anvil COUNTRY: Canada

COAL LITHOLOGY LOG

MY A50361 K

NEUTRON-NEUTRON LOG

BOREHOLE C79-32

CLIENT Cyprus Anvil

AREA Carmacks YT

COUNTRY Canada

DATE LOGGED 1/10/79

DEPTH SCALE 1:100

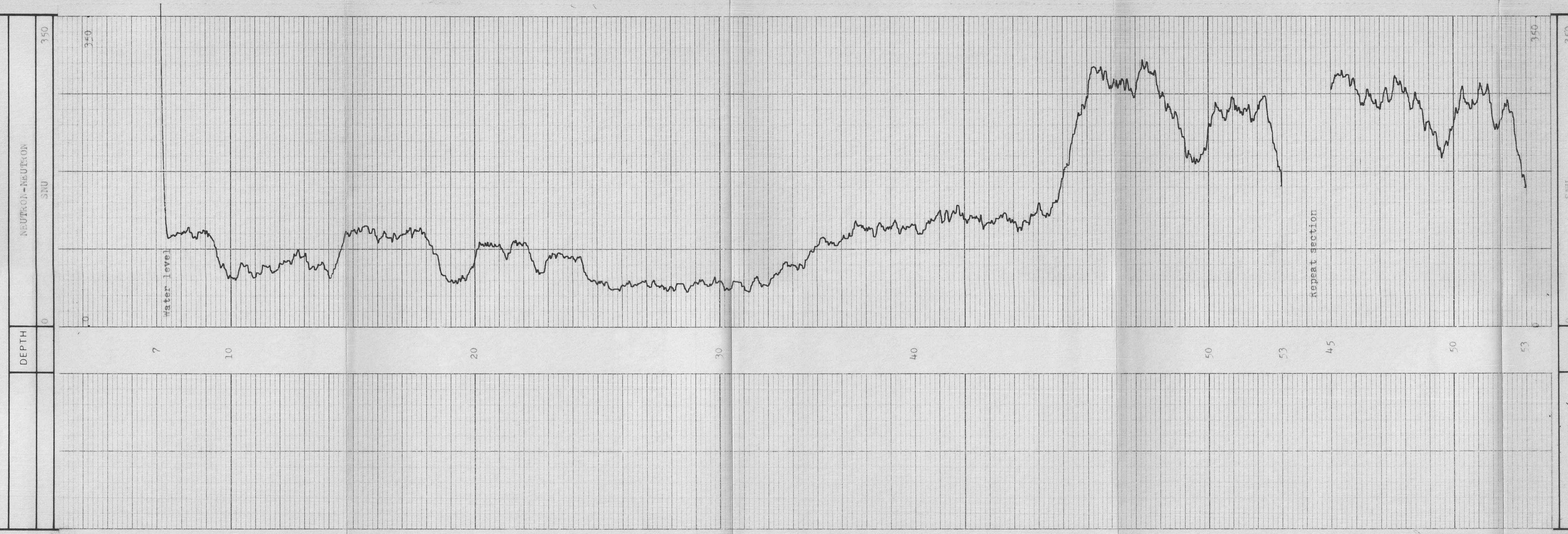
2 OF 4 LOGS

BOREHOLE DATA	REFER TO Lithology LOG
OPERATION DATA	REFER TO Lithology LOG

EQUIPMENT AND RECORDING DATA

LOG	TAPING			PANEL			CAL COEFF
	LOG TAPED	RECORD SPEED	DIRECT or REPLAY	SPEED	T C SECS	NORM	
N-N	Y	9	D	9	1	.68	
		SONDE NO	18	SOURCE NO	2470		

REMARKS



AREA Carmacks YT

COUNTRY Canada

BOREHOLE C79-32

CLIENT Cyprus Anvil

MY A58452R