Re Sukunka R. 78(3)B

COAL LITHOLOGY LOG

BPB

BOREHOLE SR # 1 '78
CLIENT Manalta Coal Ltd.
AREA Sukunka B.C.
COUNTRY Canada
DATE LOGGED 21 August
DEPTH SCALE 1:200
1 cm = 1 100ft

SONDE TYPE
COAL COMBINATION SONDE

LOG SUITE
GAMMA RAY
LS DENSITY
CALIPER

BOREHOLE DATA

ELEVATION KB	Ground Level
ELEVATION DF	
ELEVATION GL	
DATUM	GRL
DEPTH DRILLED	118 ft
DEPTH LOGGED	118 ft
CASING SHOE	20 ft
BIT SIZES	6 5/8 in
CASING SIZES	4 1/2 in

FLUID DATA

KIND	Water
LEVEL	
VISCOSITY	
PH	
FLUID LOSS	

OPERATION DATA

RIG	677
TIME SINCE CIRCULATION	12hr
TIME SINCE LAST LOGGED	21hr
MAX. TEMP. RECORDED	23°C
ENGINEER	D. Schaar
WITNESS	G. Nicholson

EQUIPMENT AND RECORDING DATA

COAL COMBINATION SONDE

LOG	EQUIPMENT: SONDE	SOURCE	CALIBRATOR	TAPING: LOG TAPER	RECORDER SPEED	DIRECT or REPLAY	PANEL: T.C. SECS	SPEED	NORM	CAL LOGS	DEPTHS: FROM	TO	METRES	SEAM LOG RUN
GAMMA RAY	110		3	Y	9	D	9	1	1.3		118	1	117	No
L S DENSITY - SIDEWALL		M 5852	42	Y	9	D	9	1/3	7.20		119	2	117	No
CALIPER - POSITION				Y	9	R	9	1/3			118	3	115	No

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

FROM		INTERVAL TOTAL
TO		
INTERVAL		

ADDITIONAL SONDES RUN

SONDE	LOG	GENERAL SCALE LOG	DETAIL SCALE LOG

REFER TO ADDITIONAL HEADINGS

REMARKS

B P B COAL LITHOLOGY LOG

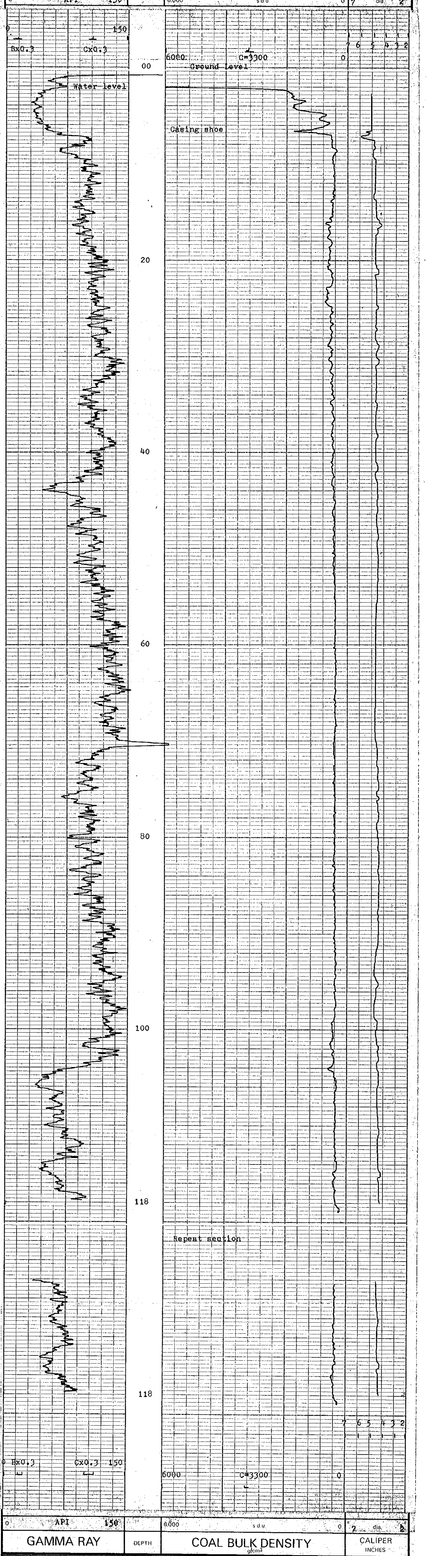
CALIBRATION DATA

JIG No. 3 VALUE 3000 @ 3" DIAM.
JIG MARK SHOWN AT ABOVE VALUE 3.33

JIG CAL. DATE 2.8.78 JIG VALUE 3300 KGM/CM³ @ 1.53 gm/cm³ 2 cm 490 cps
JIG No. 42 SPAN 6000 NORM KGM/CM³ = 7.20 7 cm 955 cps

GAMMA RAY	DEPTH	COAL BULK DENSITY g/cm³	CALIPER INCHES

HOLE SIZE CORRECTION DATA



GAMMA RAY	DEPTH	COAL BULK DENSITY g/cm³	CALIPER INCHES

BOREHOLE SR # 1 '78 AREA Sukunka B.C.
CLIENT Manalta Coal Ltd. COUNTRY Canada

COAL LITHOLOGY LOG

MT 880028

12-SUKUNKA R. 7E(3)B.

COAL LITHOLOGY LOG

BOREHOLE SR-2-78
CLIENT Manalta Coal Ltd.
AREA Sukunka B.C.
COUNTRY Canada
DATE LOGGED 25 August
1 cm = 1 m LOG
DEPTH SCALE 1:200

SONDE TYPE: COAL COMBINATION SONDE

LOG SUITE: GAMMA RAY, L S DENSITY, CALIPER

BOREHOLE DATA

REMARKING DATUM	Ground level
ELEVATION OF F.D.	
MEASUREMENTS FROM	B P B / DRILLER
DEPTH REACHED	G.L. / G.L.
CASING SHOE	18.3m / 50.2m
DEPTH LOGGED	50.2m / 62.4m
BIT SIZES	1 4 7/8 42m TO 48" TO T.D.
CASING SIZES	3 4 42m TO; 1 5" TO 56.4m; 2 TO

FLUID DATA

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

OPERATION DATA

FIRST READING	49m
LAST READING	0m
INTERVAL LOGGED	49m
UNIT + TRUCK No.	21/23
ENGINEER	D.Fisher
WITNESS	G.Jackson

67

EQUIPMENT AND RECORDING DATA

COAL COMBINATION SONDE

LOG	EQUIPMENT: SONDE	EQUIPMENT: SOURCE	EQUIPMENT: CALIBRATOR	TAPING: LOG TAPED	TAPING: RECORD SPEED	TAPING: DIRECT or REPLAY	PANEL: SPEED	PANEL: T.C. SECS	PANEL: NORM	CAL COEFF	DEPTHS: FROM	DEPTHS: TO	DEPTHS: INTERVAL	SEAM LOG RUN
GAMMA RAY	110		3	Y	9	D	9	1	.	1.3	49	0	49	No
L.S. DENSITY	SIDEWALL POSITION	M5852	42	Y	9	D	9	1/3	7.25		50	1.	49	No
CALIPER				Y	9	R	9	1/3			49	15	34	No

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

FROM		INTERVAL TOTAL
TO		
INTERVAL		

ADDITIONAL SONDES RUN

SONDE	LOG	GENERAL SCALE LOG	DETAIL SCALE LOG

REFER TO ADDITIONAL HEADINGS

REMARKS

B P B COAL LITHOLOGY LOG

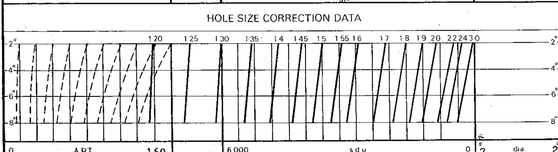
CALIBRATION DATA

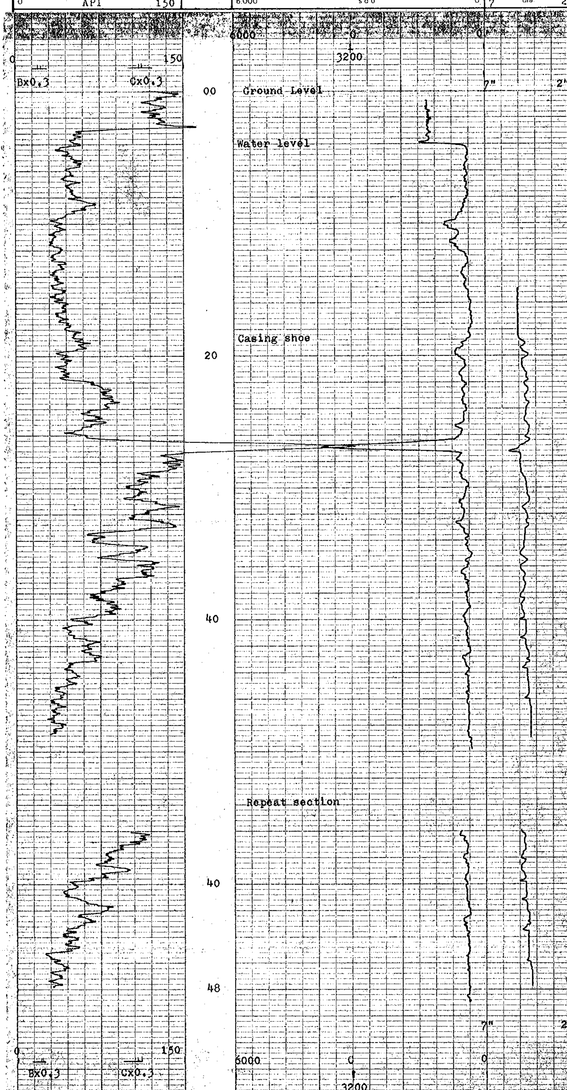
JIG No. 3 VALUE 30@ 2" DIAM
JIG MARK SHOWN AT ABOVE VALUE -3.37

JIG CAL DATE 23.8.78 JIG VALUE 3200 SDU @ 1.48 g/cm³ — 2 ins 490 cps
JIG No. 42 SPAN 6000 NORM SDU/CPS = 7.25 — 7 ins 950 cps

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

HOLE SIZE CORRECTION DATA





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

BOREHOLE SR-2-78 AREA Sukunka B.C.
CLIENT Manalta Coal Ltd. COUNTRY Canada

COAL LITHOLOGY LOG

MY 88002 R

RE-SUKUNKA R. 78(3)B

COAL LITHOLOGY LOG

BPB

BOREHOLE SR-3-78
CLIENT Manalta Coal Ltd.

AREA Sukunka, B.C.
COUNTRY Canada
DATE LOGGED 28 Aug. '78

DEPTH SCALE 1:200

1 of 3 LOGS

SONDE TYPE: COAL COMBINATION SONDE

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

BOREHOLE DATA

PERMANENT DATUM	Ground Level
ELEVATION OF P.D.	
MEAS. FROM/TO FROM	B.P.B. G.L.
DEPTH REACHED	44.5m
CASING SHOE	45.0m
BIT SIZES	1 4 7/8" TO 28m; 2 TO; 3 TO
CASING SIZES	1 5" TO 3m; 2 TO; 3 TO
DRILLER	B.P.B. G.L.
DRILLER	43.3m TO T.D.

FLUID DATA

NATURE	Water
S.G.	
LEVEL	
VISCOSITY	
Rm at meas. temp	
B.H.T.	67

OPERATION DATA

FIRST READING	44m
LAST READING	4m
UNIT NO. USED	V22/21
UNIT + TRUCK No.	D. Blicher
ENGINEER	G. Jacksen
WITNESS	

EQUIPMENT AND RECORDING DATA

COAL COMBINATION SONDE

LOG	EQUIPMENT: SONDE	SOURCE	CALIBRATOR	TAPING: LOG TAPED	RECORD SPEED	DIRECT or REPLAY	PANEL: SPEED	T.C. SECS	NORM	CAL COEFF	DEPTHS: FROM	TO	INTERVAL	SEAM LOG RUN
GAMMA RAY	110		3	Y	9	D	9	1		1.3	43	0	43	Y
L.S. DENSITY	SIDEWALL POSITION	M5852	42	Y	9	D	9	1/3		7.25	44	1	43	Y
CALIPER				Y	9	R	9	1/3		-	44	1	43	Y

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

FROM	43	23	INTERVAL TOTAL
TO	32	9	
INTERVAL	11	14	25m

ADDITIONAL SONDES RUN

SONDE	LOG	GENERAL SCALE LOG	DETAIL SCALE LOG

REFER TO ADDITIONAL HEADINGS

REMARKS

B P B COAL LITHOLOGY LOG

CALIBRATION DATA

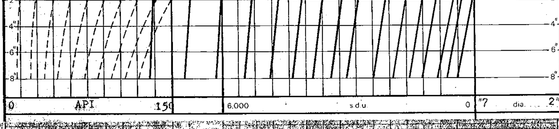
JIG No. 3 VALUE 500@ 2" DIAM.
JIG MARK SHOWN AT ABOVE VALUE = 3.33

JIG CAL DATE 23.8.78 JIG VALUE 3200 SDU @ 1.48 g/cm³
JIG No. 42 SPAN 6000 NORM SDU/CPS = 7.25

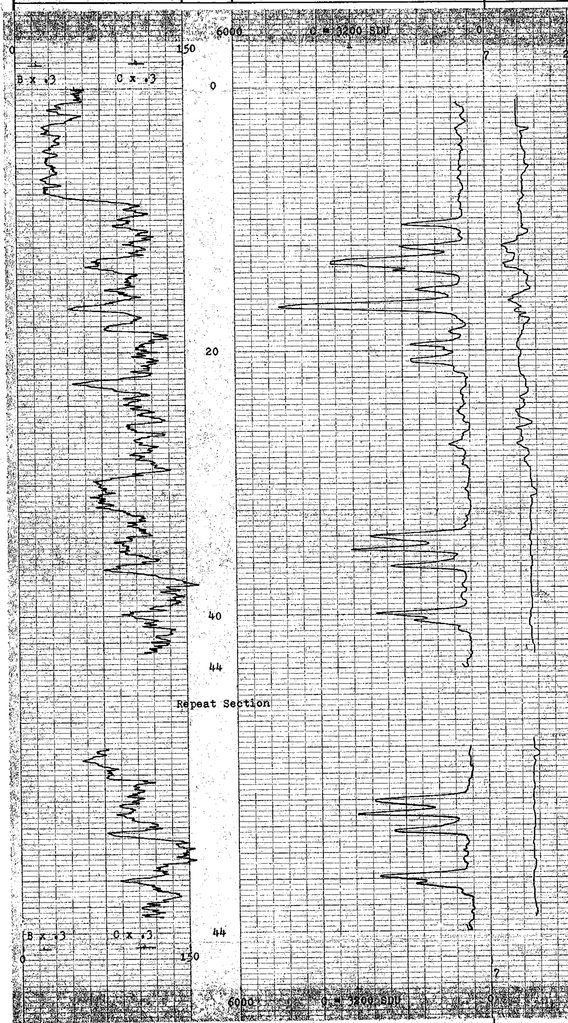
2 ins 490 cps
7 ins 950 cps

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

HOLE SIZE CORRECTION DATA



0 API 150 | 6000 s.d.u. 0 | 7" dia. 2"



0 API 150 | 6000 s.d.u. 0 | 7" dia. 2"

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

BPB

BOREHOLE SR-3-78 AREA Sukunka, B.C.
CLIENT Manalta Coal Ltd. COUNTRY Canada

COAL LITHOLOGY LOG

MY 880028

Re: Fuwinkai 6810

BPB

BOREHOLE SR-3-78
CLIENT Manalta Coal Ltd.
AREA Sukunka B.C.
COUNTRY Canada
DATE LOGGED 28 Mar 78
RUN NO. 2 or 3
DEPTH SCALE 1:100

COAL QUALITY LOG

BOREHOLE DATA (WITH TO LITHOLOGY LOG)

OPERATOR DATA (WITH TO LITHOLOGY LOG)

EQUIPMENT AND RECORDING DATA

SONDE DIAMETER 3.5 in.
SONDE TYPE SINGLE PROBE
SONDE CENTRALIZER YES
SONDE CONTACTS NO. 2
RECORDER TYPE Mark
RECORDER SERIAL NO. 1
RECORDER CALIBRATION
DATE 28 Mar 78
TIME 1:45
RUN NO. 2 3
DEPTH DRILLER 600 600
DEPTH LOGGER 600 600
BOTTOM LOGGED INTERVAL 600 600
TOP LOGGED INTERVAL 0 0
CASING DRILLER 0 0
CASING LOGGER 0 0
BIT SIZE 7 7
TYPE FLUID AIR AIR
DENSITY
VISCOSITY
PH
FLUID LEVEL
MAX. REC. TEMP. °C
ESTIMATED CEMENT TOP
TIME SINCE CIRCULATION
MAX. TEMP. RECORDED °C
BHT °C
RMF
RMC
RM @ MEASURED TEMP.
RMF @ MEASURED TEMP.
RMC @ MEASURED TEMP.
SOURCE OF RMF/RMC
SOURCE OF RM
RM @ MEASURED TEMP.
RMF @ MEASURED TEMP.
RMC @ MEASURED TEMP.
SOURCE OF RMF/RMC
SOURCE OF RM

COAL QUALITY LOG INTERVALS

	Start	Stop
Run 1	33	73
Run 2	11	15

LOG SUITE
GAMMA RAY -
L. DENSITY

REMARKS

Run 1 BPB
Run 2 BPB

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BPB COAL QUALITY LOG

DEPTH

GAMMA RAY

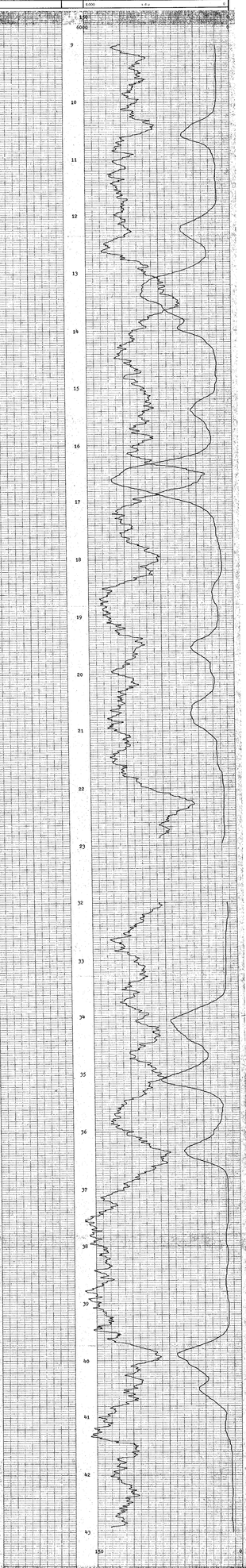
COAL BULK DENSITY

HOLE SIZE CORRECTION DATA

	1	2	3	4	5	6	7	8	9	10
7"										
6"										
5"										
4"										

150 API 0

0.000 g/cc 3



0.000 g/cc 3

150 API 0

COAL BULK DENSITY

DEPTH

GAMMA RAY

BPB

BOREHOLE SR-3-78 AREA Sukunka, B.C.
CLIENT Manalta Coal Ltd. COUNTRY Canada

COAL QUALITY LOG

P2 - Sumiker R. 76G/6

SEAM THICKNESS LOG

BOREHOLE 88-3-78
CLIENT Manalta Coal Ltd.
AREA Sukunka, B.C.
COUNTRY Canada
DATE LOGGED 25 APR. '78

SONDE TYPE: CDN-1
CDN-1 COMPENSATED DENSITY SONDE
COMBINATION SONDE

SEAM THICKNESS	33	2
LOG INTERVALS	21	16

CALIPER	7"	2"
B-R DENSITY	3.0	2.0

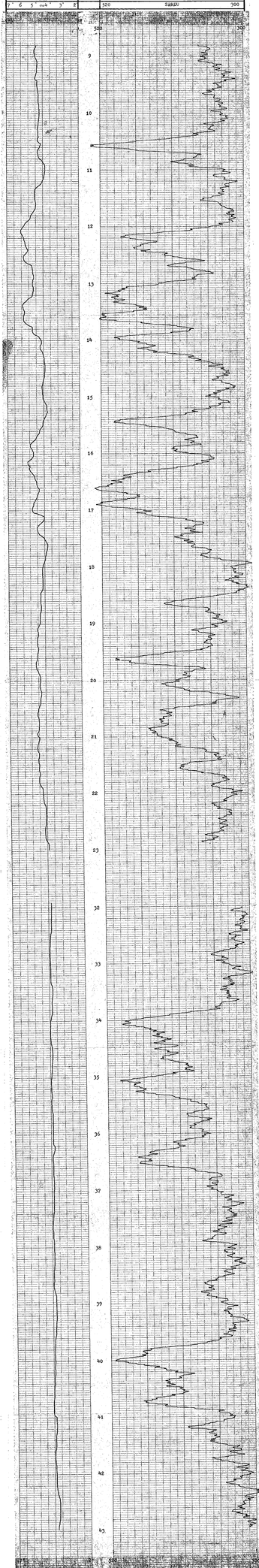
CALIPER
B-R DENSITY

REMARKS

BOREHOLE DATA	
DRILLER'S DEPTH	1000
CASING DEPTH	1
BIT SIZE	7 7/8
FLUID LEVEL	1
FLUID TYPE	AIR
FLUID WEIGHT	1
FLUID VISCOSITY	1
FLUID PH	1
FLUID LOSS	1
MAX. REC. TEMP.	1

EQUIPMENT AND RECORDING DATA	
EQUIPMENT NO.	CDN-1
CALIBRATION TYPE	CDN-1
CALIBRATION DATE	1
OPERATOR DATA	
RIGGED UP TO	1
RIGGED DOWN	1
OPERATOR	1
RECORDED BY	1
WITNESSED BY	1

BPB



CALIPER
DEPTH
BED RESOLUTION DENSITY

BPB

BOREHOLE 88-3-78
CLIENT Manalta Coal Ltd.
AREA Sukunka, B.C.
COUNTRY Canada

SEAM THICKNESS LOG

MT 880053 B

Re. Sukunka B.C. 78/9/8

BPB

BOREHOLE SR-4-78
CLIENT Manalta Coal Ltd.

AREA Sukunka, B.C.
COUNTRY Canada
DATE LOGGED 1/9/78

DEPTH SCALE 1:200

1 OF 1 LOGS

COAL LITHOLOGY LOG

SONDE TYPE
COAL COMBINATION SONDE

LOG SUITE
GAMMA RAY
L.S. DENSITY
CALIPER

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BOREHOLE DATA

PERMANENT DATUM	Ground Level	
ELEVATION OF P.D.		
	BPB	DRILLER
MEASUREMENTS FROM	G.L.	G.L.
DEPTH REACHED	62 m	62 m
CASING SHOE		10 ft

BIT SIZES	1	4 7/8 45m	2	4 3/4 TO T.D.	
	3	TO	4	TO	
CASING SIZES	1	5 ½ TO 10ft	2	TO	

FLUID DATA

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

OPERATION DATA

FIRST READING	61 m
LAST READING	0
INTERVAL LOGGED	61 m
UNIT-TRUCK No.	V23/21
ENGINEER	R. Bishop
WITNESS	

EQUIPMENT AND RECORDING DATA

COAL COMBINATION SONDE

LOG	EQUIPMENT SONDE	EQUIPMENT SOURCE	EQUIPMENT CALIBRATOR	TAPING LOG NO.	TAPING RECORD SECOND	TAPING DIRECT OR ECHO	TAPING SPEED	PANEL L.C. SCALE	PANEL NORM	DEPTHS LOG COARSE	DEPTHS FROM	DEPTHS TO	DEPTHS INTERVAL	SEAM LOGS RUN
GAMMA RAY														
L.S. DENSITY			3	Y	9	D	9	1	1.3		60	0	60	N
CALIPER	110	MISBO	42	Y	9	D	9	1/3	7.25		61	1	60	N
				Y	9	D	9	1/3	-		61	1	60	N
				Y	9	R	9	1/3						

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

FROM	TO	INTERVAL

ADDITIONAL SONDES RUN

SONDE	LOG	GENERAL SCALE	DETAIL SCALE

REFER TO ADDITIONAL HEADINGS

REMARKS

B P B COAL LITHOLOGY LOG

CALIBRATION DATA

Jig No 3 VALUE 30 @ 2" DIAM

JIG MARK SHOWN AT ABOVE VALUE - 3 - 3

JIG CAL DATE 28/8/78 Big VALUE 3200 SPU @ 1.48 g/cm³ 7 m 955 CPS

JIG No. 42 SPAN 6000 NORM 500 - 7.25 2 m 490 CPS

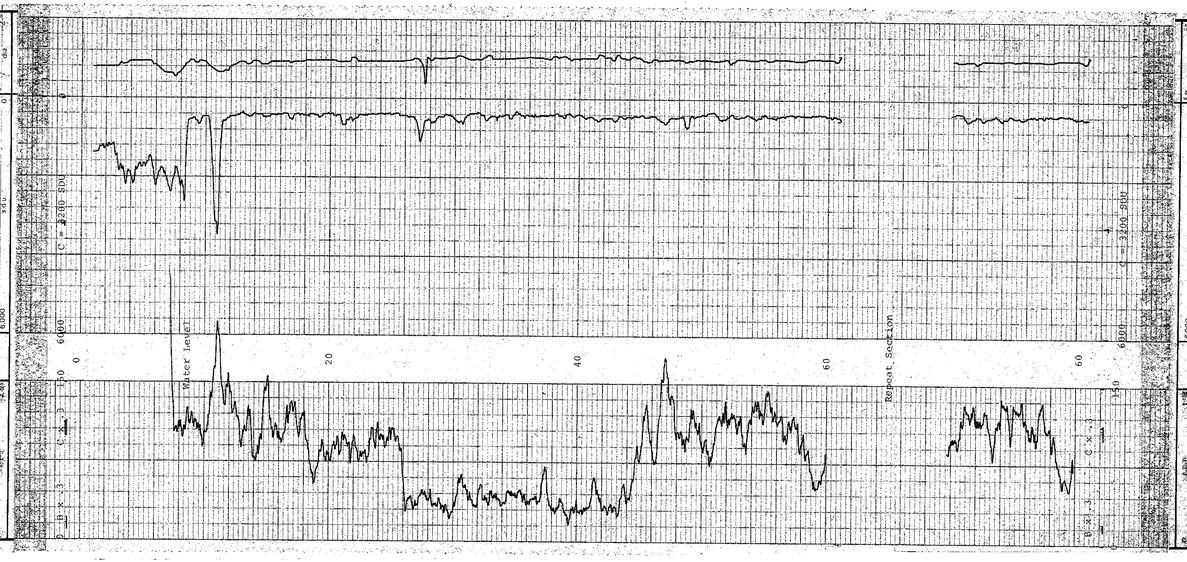
GAMMA RAY

DEPTH

COAL BULK DENSITY g/cm³

HOLE SIZE CORRECTION DATA

CALIPER INCHES



GAMMA RAY

DEPTH

COAL BULK DENSITY g/cm³

CALIPER INCHES

BOREHOLE SR-4-78
CLIENT Manalta Coal Ltd.
AREA Sukunka, B.C.
COUNTRY Canada

COAL LITHOLOGY LOG

BPB

MY 880038

PR-SUKUNKA R. 78(3)0

COAL LITHOLOGY LOG

BOREHOLE	SR-5-78
CLIENT	Manalta Coal Ltd.
AREA	Sukunka R.B.C.
COUNTRY	Canada
DATE LOGGED	16/9/78
DEPTH SCALE	1:200
	1 OF 1 LOGS

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

BOREHOLE DATA

PERMANENT DATUM	Ground level				
ELEVATION OF PD					
	B.P.B				
LOG MEASUREMENTS FROM	DRILLER				
CASING SHOE	92.5m				
DRILLER	G.J.L.				
LOGGER	G.J.L.				
BIT SIZES	1	4 7/8"	1	38m	
	3	4 1/4"	1	92.5m	
CASING SIZES	1	5 5/8"	1	10.5m	
	1	5 5/8"	1	92.5m	
	2	3 1/2"	1	62.7	
	4				
	FROM				
	TO				

FLUID DATA

SALINITY	Water/Gelsk-gel
LEVEL	
VISCOSITY	
DENSITY	
PH	

OPERATION DATA

FIRST READING	92m
INTERVAL LOGGED	92m
UNIT THICK NO.	V23/21
ENGINEER	R. Blahon
WITNESS	G. Jackson

677

EQUIPMENT AND RECORDING DATA

COAL COMBINATION SONDE

LOG	EQUIPMENT: SONDE	EQUIPMENT: SOURCE	EQUIPMENT: CALIBRATOR	TAPING: LOG TAPED	TAPING: RECORD SPEED	TAPING: DIRECT OR REPLAY	PANEL: SPEED	PANEL: TIME CONST.	PANEL: NORM	CAL COEFF	DEPTHS: FROM	DEPTHS: TO	DEPTHS: INTERVAL	SEAM LOG RUN
GAMMA RAY				Y	9	D	9	1	1.3		91	0	91m	Y
L.S. DENSITY	110			Y	9	D	9	1/3	7.25		92	1	91m	Y
CALIPER	SIDEWALL POSITION	M5852		Y	9	R	9	1/3	-		92	1	91m	Y

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

FROM	90	82	24	INTERVAL TOTAL
TO	85	76	16	
INTERVAL	5	6	8	19m

ADDITIONAL SONDES RUN			
SONDE	LOG	GENERAL SCALE LOG	DETAIL SCALE LOG

REFER TO ADDITIONAL HEADINGS

REMARKS

B P B COAL LITHOLOGY LOG

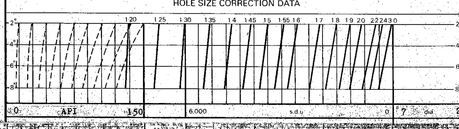
CALIBRATION DATA

JIG No.	VALUE 3000 2" DIAM	JIG CAL DATE 28/8/78	JIG VALUE 3200 SDU/cm³ 2.48 g/cm³
JIG MARK SHOWN AT ABOVE VALUE -3.3		JIG No.	SPAN 6000 NORM SDU/CPS 7.25

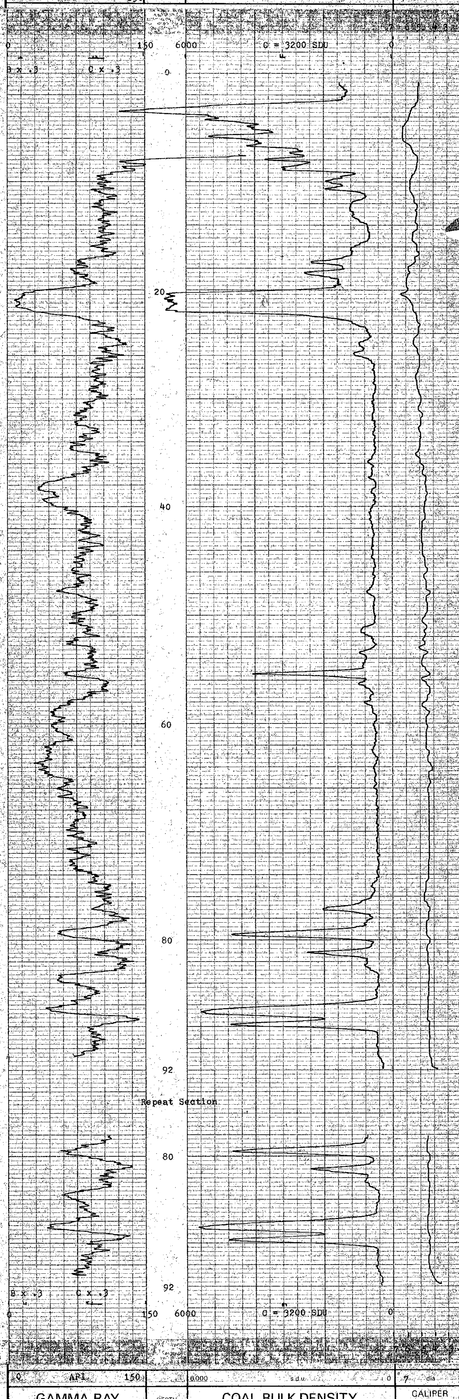
7 ins 955 cps
2 ins 490 cps

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

HOLE SIZE CORRECTION DATA



0 API 150 | 6000 s.d.u. 0 | 7 dia 2



0 API 150 | 6000 s.d.u. 0 | 7 dia 2

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

BOREHOLE	SR-5-78
CLIENT	Manalta Coal Ltd.
AREA	Sukunka, B.C.
COUNTRY	Canada

COAL LITHOLOGY LOG

MY 880028

Pr. Sukunka R. 78(9)B

COAL QUALITY LOG

BOREHOLE: SB-5-78
CLIENT: Manalta Coal Ltd.
AREA: Sukunka, B.C.
COUNTRY: Canada
DATE LOGGED: 26/9/78

SCALE: 1:100
2 0 — 3 0m

BOREHOLE DATA: REFER TO LITHOLOGY LOG
OPERATOR DATA: REFER TO LITHOLOGY LOG
CALIBRATION AND RECORDING DATA

LOG	CALIBRATION	RECORDING
GAMMA RAY		
COAL BULK DENSITY		

HOLE DIAMETER (IN.)

| | | |

Pr. Surunka 78 (8) B.

BPB

BOREHOLE 38-5-78
CLIENT Nanaimo Coal Ltd.
AREA Suncoke, B.C.
COUNTRY Canada
DATE LOGGED 16/9/78
COMPUTER 1125
1 - 3 - 3 - 000

SEAM THICKNESS LOG

BOREHOLE DATA
RIGHT BELOW CASING
OPERATION DATA
METER TO LINE OFF LOG
EQUIPMENT AND RECORDING DATA
EXTERNAL CONDITION

TOOL	SERIAL NO.	CALIBRATED	LAST ACCURACY
CALIPER	3	8	1
GAMMA	2	2	1
SONDE	2	2	1

LENGTH	3	8	1
DIAMETER	2	2	1
GAMMA SONDE MATCH-BARATON			1 - 76

SHUTTLE TYPE:
COMBINATION SONDE
SEAM THICKNESS LOG INTERVALS
BED RESOLUTION DENSITY

LOG SUITE		
CALIPER	0.0	76
BR DENSITY	0.5	76
		NORMAL
		TOTAL
REMARKS		1.00

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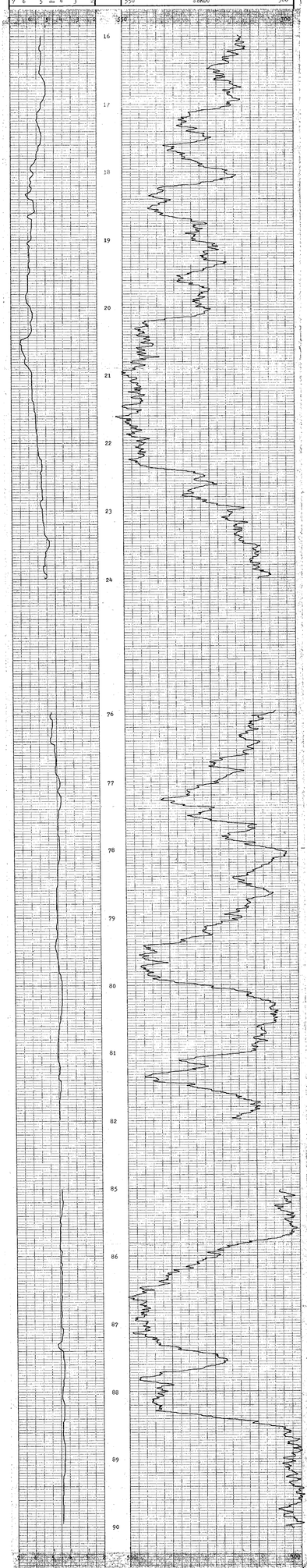
B P B SEAM THICKNESS LOG

CALIPER INCHES	DEPTH	BED RESOLUTION DENSITY
7" 6" 5 cm 4 3" 2"		550 SBRDU 300



CALIPER INCHES	DEPTH	BED RESOLUTION DENSITY
7" 6" 5 cm 4 3" 2"		550 SBRDU 300

BPB

BOREHOLE 38-5-78
CLIENT Nanaimo Coal Ltd.
AREA Suncoke, B.C.
COUNTRY Canada

SEAM THICKNESS LOG

MT 680028

RA-SUKUNKA R. 78(3)B

COAL LITHOLOGY LOG

BOREHOLE SR-6-78
CLIENT Manalta Coal Ltd.

AREA Sukunka, B.C.
COUNTRY Canada
DATE LOGGED 21/9/78

1 OF 1 LOGS

DEPTH SCALE 1:200

SONDE TYPE: COAL COMBINATION SONDE

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

BOREHOLE DATA

PERMANENT DATUM	Ground Level
ELEVATION OF PD	
MEASUREMENTS FROM	BPB
DEPTH REACHED	DRILLER 46.3m / LOGGER 46.2m
CASING SHOE	10ft.
BIT SIZES	1 4 7/8" TO 20m; 2 4 3/4" TO T.D.
CASING SIZES	3 5 3/4" TO 10" ; 4 TO ; 1 2 TO

OPERATION DATA

FIRST READING	4.5m
LAST READING	0
INTERVAL LOGGED	4.5m
UNIT - TRUCK No	V23/21
ENGINEER	R. Bishop
WITNESS	G. Jackson

FLUID DATA

NATURE	Quik-Gel
SOURCE	
LEVEL	1m
VISCOSITY	
Rm AT MEAS. TEMP	
BHT	

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EQUIPMENT AND RECORDING DATA

COAL COMBINATION SONDE

LOG	EQUIPMENT: SONDE	SOURCE	CALIBRATOR	TAPING: LOG TAPED	RECORD SPEED	DIRECT or REPLAY	PANEL: SPEED	T.C. SECS	NORM	CAL COEFF	DEPTHS: FROM	TO	INTERVAL	SEAM LOG RUN
GAMMA RAY	110			Y	9	D	9	1	1.67		44	0	44	N
L.S. DENSITY	SIDEWALL POSITION	M5852		Y	9	D	9	1/3	7.4		45	1	44	N
CALIPER				Y	9	R	9	1/3	-		45	1	44	N

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

FROM		INTERVAL TOTAL
TO		
INTERVAL		

ADDITIONAL SONDES RUN

SONDE	LOG	GENERAL SCALE LOG	DETAIL SCALE LOG

REFER TO ADDITIONAL HEADINGS

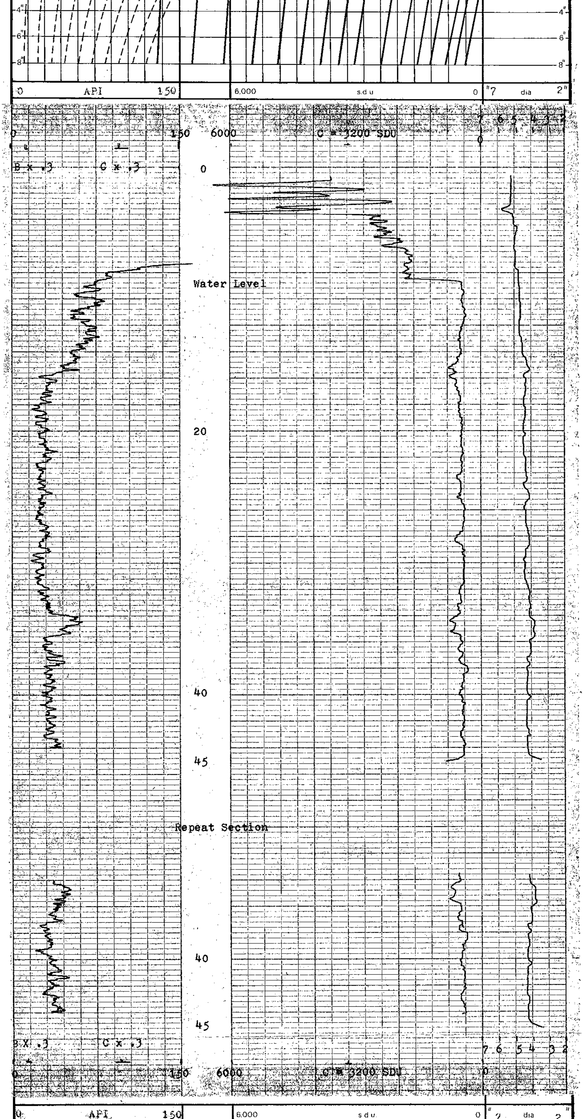
REMARKS

B P B COAL LITHOLOGY LOG

CALIBRATION DATA

JIG No. VALUE 3000 @ 2" DIAM
JIG MARK SHOWN AT ABOVE VALUE -3.33

JIG CAL DATE 28/8/78 JIG VALUE 3200 SDU @ 1.48 g/cm³ — 7 ins 955 cps
JIG No SPAN 6000 NORM SDU/CPS = 7.40 — 2 ins 490 cps



BOREHOLE SR-6-78 AREA Sukunka, B.C.
CLIENT Manalta Coal Ltd. COUNTRY Canada

COAL LITHOLOGY LOG

MY 880028

Do not film App. 3

APPENDIX III

STATUS OF RECLAMATION FROM BCMMPR

Province of
British Columbia

Ministry of
Mines and
Petroleum Resources

Mineral Resources Branc
P.O. Box 7438
Fort St. John, B.C.
V1J 4M9

1978-10-13

Mr. G. W. Jackson, P.Geol.
Senior Geologist,
Manalta Coal Ltd.,
P.O. Box 2880
Calgary, Alberta
T2P 2M7

Dear Mr. Jackson:

Re: Master Exploration Ltd.,
Sukunka Property - Permit No.51
Your File: E7120 - Sukunka - 4

This will advise that I made a final inspection of reclamation on the above property following completion of your 1978 exploration program. Disturbances were minimal and reclamation is considered current by this office.

Yours very truly,

E.J. Hall, C.E.T.
Reclamation Inspector/
Technician

c.c. J.D. McDonald
A.D. Tidsbury
L. McQueen

A P P E N D I X

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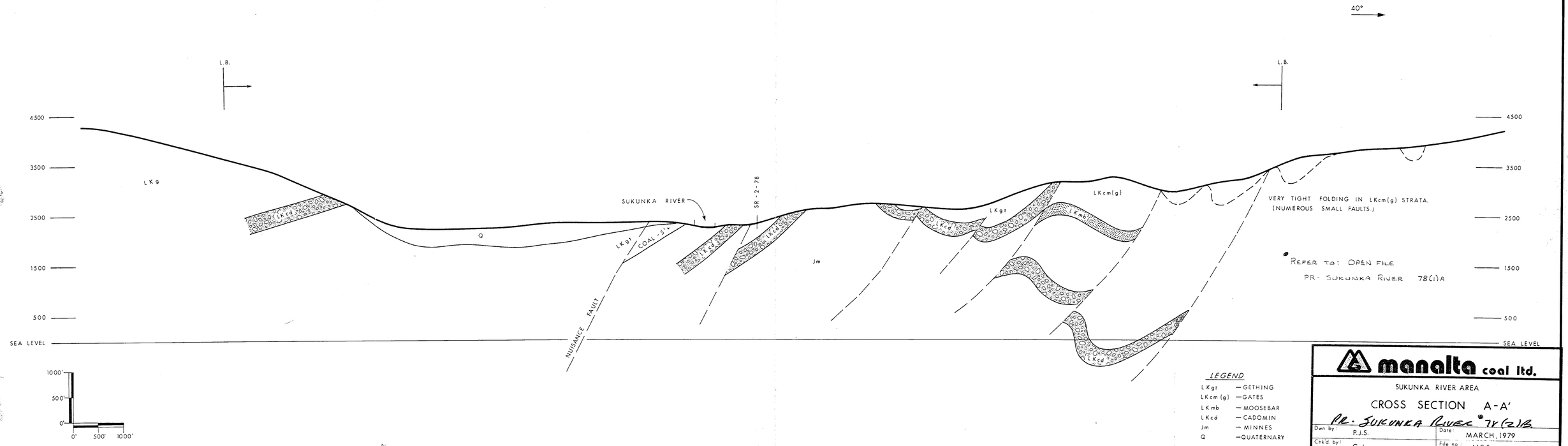
CROSS SECTIONS

CONFIDENTIAL



LEGEND

LKgt	— GETHING
LKcm(g)	— GATES
LKmb	— MOOSEBAR
LKcd	— CADOMIN
Jm	— MINNES
Q	— QUATERNARY

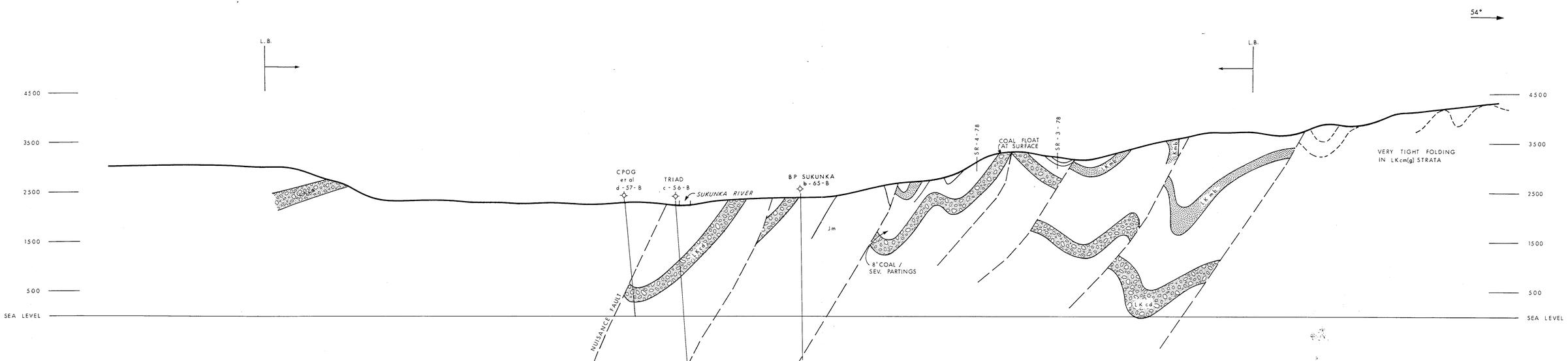
manalta coal ltd.

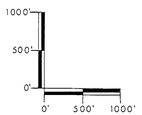
SUKUNKA RIVER AREA

CROSS SECTION A-A'

PR- SUKUNKA RIVER 78(2)B

Dwn by:	P.J.S.	Date:	MARCH, 1979
Chk'd by:	G.J.	File no:	4105





LEGEND

Q	- QUATERNARY
LKcm(g)	- GATES
LKmb	- MOOSEBAR
LKgt	- GETHING
LKcd	- CADOMIN
Jm	- MINNES

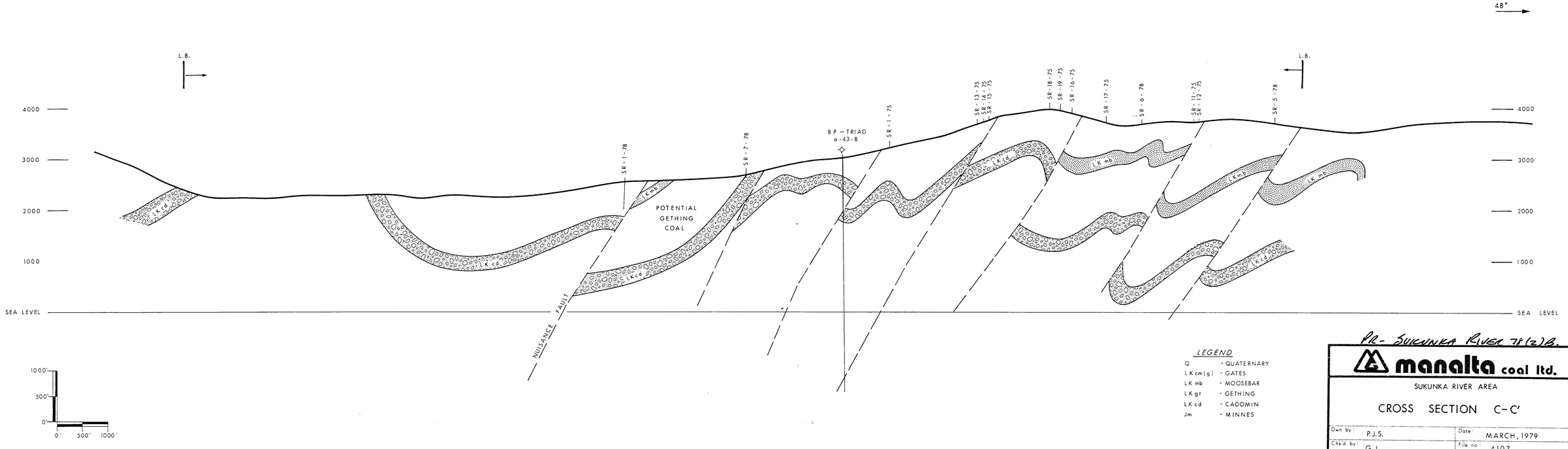
PR-SUKUNKA RIVER 78(2)B.

manalta coal ltd.

SUKUNKA RIVER AREA

CROSS SECTION B-B'

Dwn by:	P.J.S.	Date:	MARCH, 1979
Chk'd by:	G.J.	File no:	4106



LEGEND

Q	- QUATERNARY
LK cm(g)	- GATES
LK mb	- MOOSEBAR
LK gt	- GETHING
LK cd	- CADOMIN
Jm	- MINNES

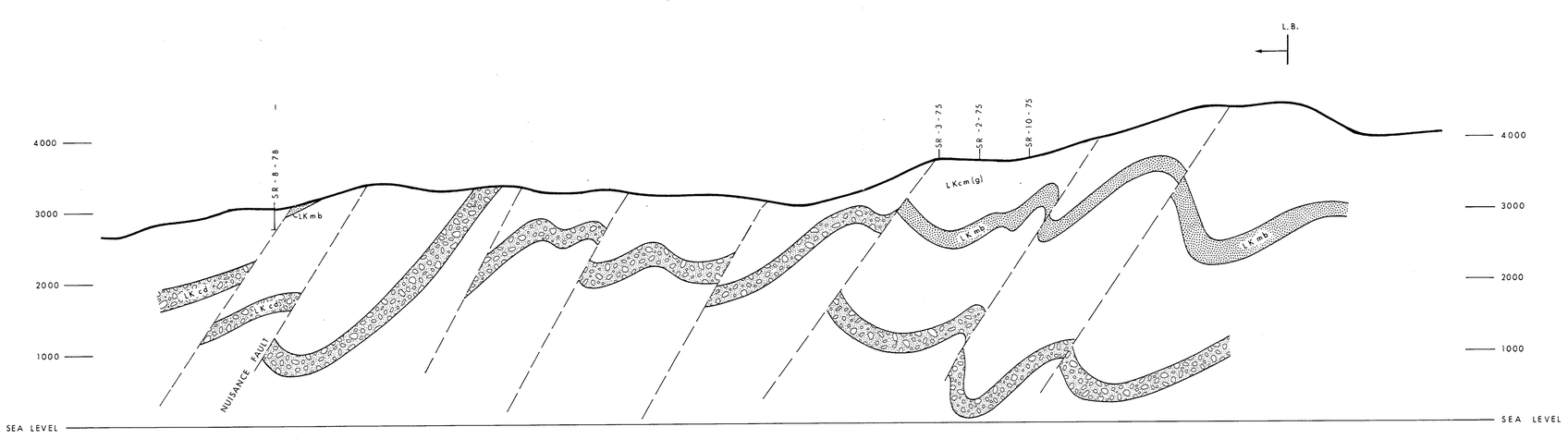
RE- SUKUNKA RIVER 74(2)B.

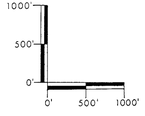
manalta coal ltd.

SUKUNKA RIVER AREA

CROSS SECTION C–C'

Dwn by:	P.J.S.	Date:	MARCH, 1979
Chk'd by:	G.J.	File no:	4107





LEGEND

LKcm(g)	– GATES
Lk mb	– MOOSEBAR
Lk cd	– CADOMIN
Jm	– MINNES
Q	– QUATERNARY
LKgt	– GETHING

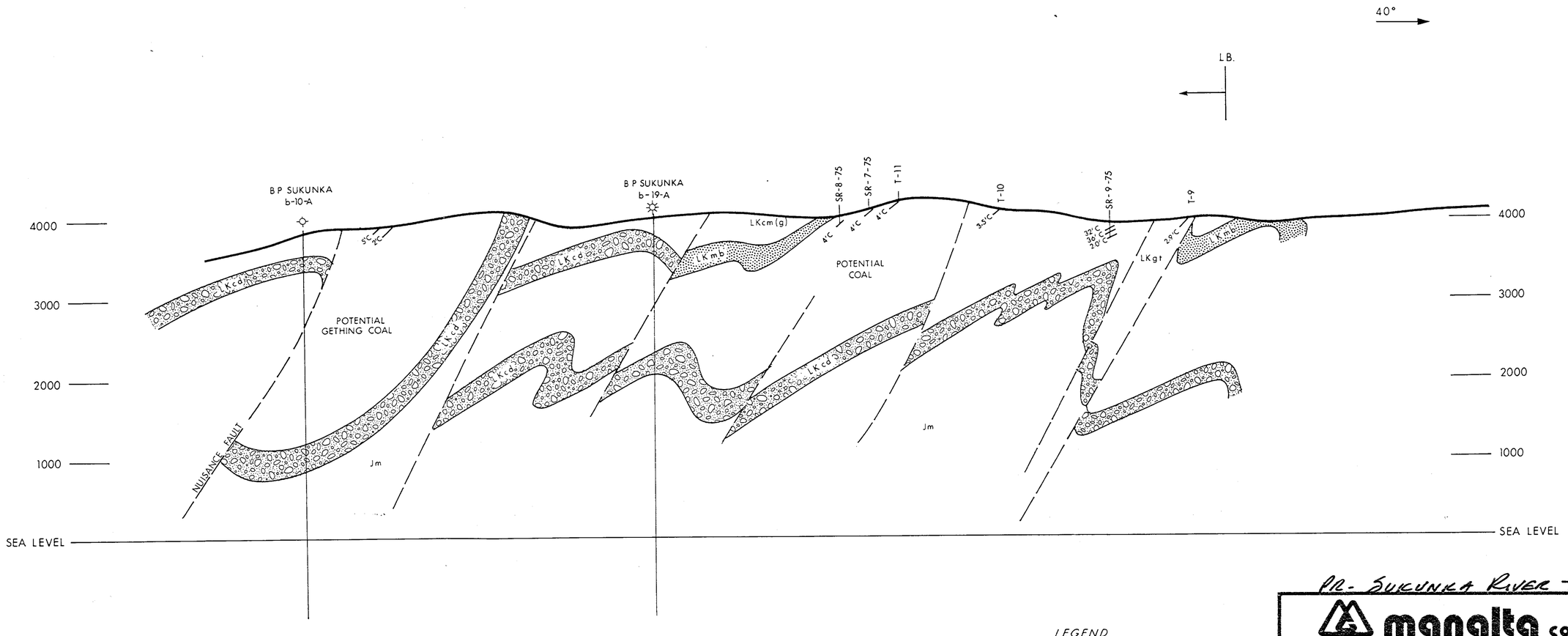
PR. SUKUNKA RIVER 78 (2) B.

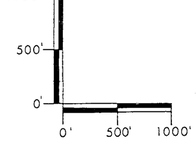
manalta coal ltd.

SUKUNKA RIVER AREA

CROSS SECTION D-D'

Dwn by:	P.J.S.	Date:	MARCH, 1979
Chk'd by:	G.J.	File no:	4108





LEGEND

LKcm(g)	– GATES
LKmb	– MOOSEBAR
LKcd	– CADOMIN
Jm	– MINNES
Q	– QUATERNARY
LKgt	– GETHING

PR- SUKUNKA RIVER 78(2)B.

manalta coal ltd.

SUKUNKA RIVER AREA

CROSS SECTION E-E'

Dwn by:	P.J.S.	Date:	MARCH, 1979
Chk'd by:	G.J.	File no.:	4109

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DIGITIZE

LEGEND

1978 EXPLORATION COLOR CODE

- ROADS USED
- ROAD, DRILL SITE RECLAIMED

- ANTICLINE
- SYNCLINE
- FAULT
- DRILL HOLE
- ROAD

- BLOCK BOUNDARY
- MANALTA COAL LEASE BOUNDARY
- BOW RIVER RESOURCES LEASES ACQUIRED BY MCL
- GRIZZLY VALLEY PIPELINE
- CROSS - SECTION

manalta coal ltd.

SUKUNKA RIVER

REGIONAL GEOLOGY MAP

CONTOUR INTERVAL 100 FEET

Dwn by:	D.R.	Date:	FEB. 1979
Chk'd by:	G.J.	File no.:	4099

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SUKANKA RIVER AREA

1978 EXPLORATION

PL- SUKUNKA RIVER 78 (2)B

Dwn by: G.G.G.	Date: DECEMBER, 1978
Ch'd by: G.W.J.	File no.: 4060