FIELD COPY

SAMPLE No. 43

HOLE No. TW-225

PROJECT TELKWA

SAMPLE INTERVAL from 190.65 m

to 192.77 m

TYPE OF SAMPLE
CORE ☒
CHIP ☐
CHANNEL ☐

OTHER: ----------

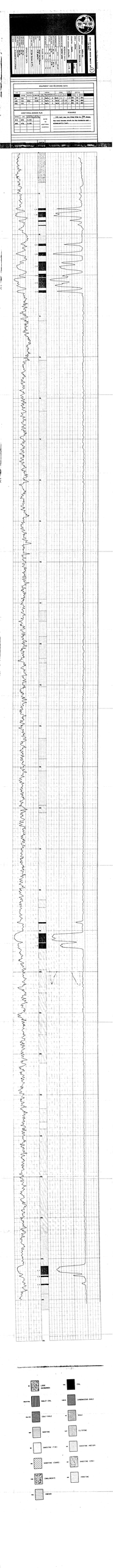
SAMPLED BY: RK

DATE: July 82

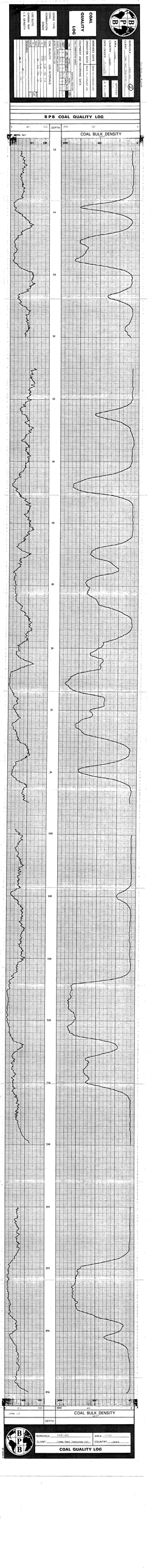
SEAM No. 1A

recovery 90%

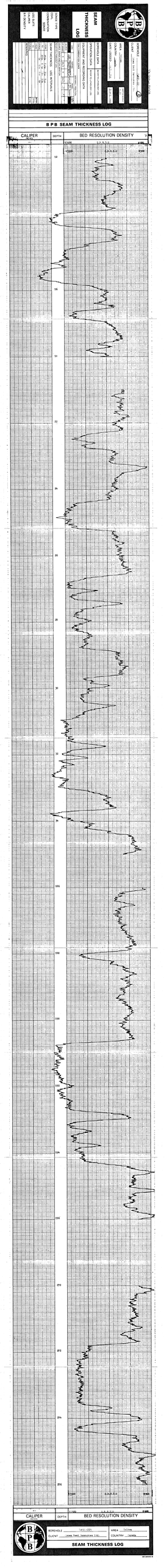
RETURN ADDRESS:
CROWS NEST RESOURCES LIMITED
P.O. BOX 2699, STN. M,
CALGARY, ALBERTA T2P 2M7
TELEX 038-24782



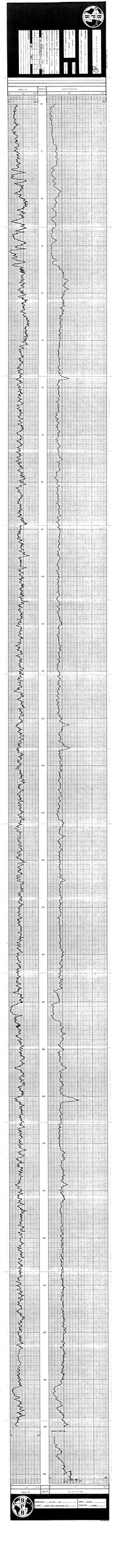
EQUIPMENT AND RECORDING DATA
ADDITIONAL SENSOR DATA
REMARKS
LOG
CONSOLIDATED SHALE
SHALE
SILTSTONE
SANDSTONE (FINE)
SANDSTONE (MEDIUM)
SANDSTONE (COARSE)
SANDSTONE (CONG)
CONGLOMERATE
LIMESTONE
DOLOMITE
COAL
CARBONATOR SHALE
SHALE
SILTSTONE
SANDSTONE (MEDIUM)
SANDSTONE (CONG)
LIMESTONE



BPB
COAL QUALITY LOG
BOREHOLE
CLIENT
AREA
COUNTRY
SCALE
DEPTH
COAL BULK DENSITY
BOREHOLE
CLIENT
AREA
COUNTRY
SCALE
DEPTH
COAL QUALITY LOG



B P B
SEAM THICKNESS LOG
BOREHOLE
CLIENT
AREA
COUNTY
COUNTRY
DATE
RESOLUTION DATA
SPIRAL DATA
SPIRAL DATA RECORDING DATA
COMPUTER AND RECORDING DATA
SEAM THICKNESS LOG INTERPRETATION
SEAM THICKNESS
CORRELATION
CALIPER
BED RESOLUTION DENSITY
B P B SEAM THICKNESS LOG
CALIPER
DEPTH
BED RESOLUTION DENSITY
BOREHOLE
AREA
CLIENT
COUNTRY
SEAM THICKNESS LOG



Tel-Tellus 83/34

BPB

FOOTAGE MARKER FOG. 5

BOREHOLE TWPL-225

CLIENT Crows Nest Resources Ltd.

AREA Tellus

COUNTRY Canada

DATE LOGGED 21/03/82

DEPTH SCALE 1:200

5 OF 5 LOGS

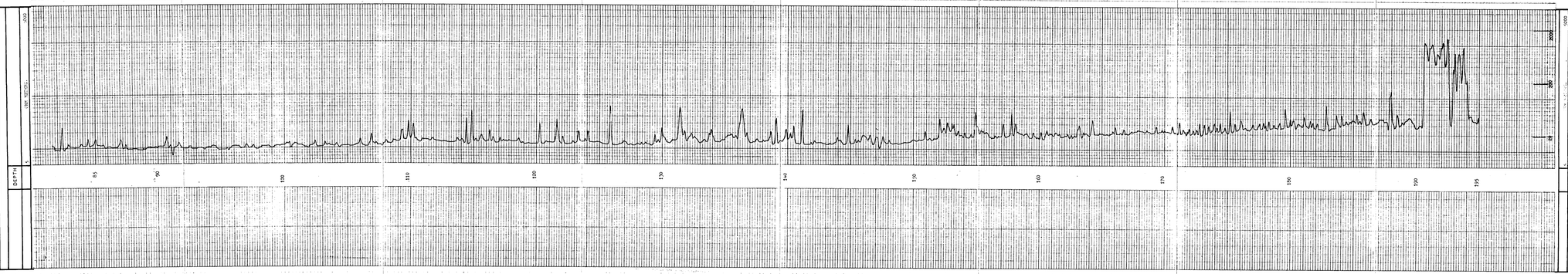
BOREHOLE DATA	REFER TO [illegible]	LOG
OPERATION DATA	REFER TO [illegible]	LOG

EQUIPMENT AND RECORDING DATA

LOG	TAPING			PANEL			CAL CONT
	LOG TAPED	RECORDING SPEED	RECORDING DEPTH	SPEED	T.C. SECS	NORM	
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
		SCALE 1:200		[illegible]			

REMARKS

[illegible] tool was run from [illegible] to 82m where the tool became stuck in the borehole and subsequently lost.



BOREHOLE TWPL-225

CLIENT Crows Nest Resources Ltd.

AREA Tellus

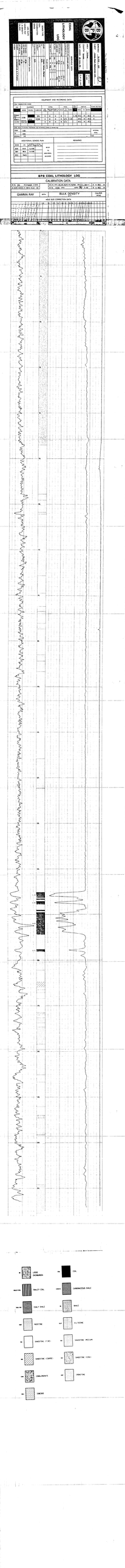
COUNTRY Canada

Directional survey

TW-82D-226

LOG DEPTH	0200.00	
TRUE DEPTH	0199.72	
TILT	3.11	DG
BEARING	317.26	DG
NORTHING	+006.08	
EASTING	-007.08	
LOG DEPTH	0190.00	
TRUE DEPTH	0189.73	
TILT	2.75	DG
BEARING	304.32	DG
NORTHING	+005.68	
EASTING	-006.71	
LOG DEPTH	0180.00	
TRUE DEPTH	0179.74	
TILT	2.90	DG
BEARING	300.99	DG
NORTHING	+005.41	
EASTING	-006.31	
LOG DEPTH	0170.00	
TRUE DEPTH	0169.75	
TILT	3.46	DG
BEARING	315.24	DG
NORTHING	+005.15	
EASTING	-005.88	
LOG DEPTH	0160.00	
TRUE DEPTH	0159.77	
TILT	3.46	DG
BEARING	312.01	DG
NORTHING	+004.72	
EASTING	-005.45	
LOG DEPTH	0150.00	
TRUE DEPTH	0149.79	
TILT	3.68	DG
BEARING	311.08	DG
NORTHING	+004.31	
EASTING	-005.00	
LOG DEPTH	0140.00	
TRUE DEPTH	0139.81	
TILT	3.61	DG
BEARING	312.68	DG
NORTHING	+003.89	
EASTING	-004.52	
LOG DEPTH	0130.00	
TRUE DEPTH	0129.83	
TILT	3.47	DG
BEARING	309.37	DG
NORTHING	+003.47	

LOG DEPTH	0120.00	
TRUE DEPTH	0119.85	
TILT	3.61	DG
BEARING	308.03	DG
NORTHING	+003.08	
EASTING	-003.59	
LOG DEPTH	0110.00	
TRUE DEPTH	0109.87	
TILT	3.82	DG
BEARING	312.45	DG
NORTHING	+002.69	
EASTING	-003.09	
LOG DEPTH	0100.00	
TRUE DEPTH	0099.89	
TILT	4.03	DG
BEARING	322.41	DG
NORTHING	+002.24	
EASTING	-002.60	
LOG DEPTH	0090.00	
TRUE DEPTH	0089.91	
TILT	4.24	DG
BEARING	322.88	DG
NORTHING	+001.68	
EASTING	-002.17	
LOG DEPTH	0080.00	
TRUE DEPTH	0079.94	
TILT	3.96	DG
BEARING	305.21	DG
NORTHING	+001.09	
EASTING	-001.72	
LOG DEPTH	0070.00	
TRUE DEPTH	0069.96	
TILT	3.82	DG
BEARING	299.88	DG
NORTHING	+000.70	
EASTING	-001.16	
LOG DEPTH	0060.00	
TRUE DEPTH	0059.98	
TILT	3.96	DG
BEARING	302.20	DG
NORTHING	+000.36	
EASTING	-000.58	
LOG DEPTH	0050.00	
TRUE DEPTH	0050.00	
TILT	3.82	DG
BEARING	300.46	DG
NORTHING	+000.00	
EASTING	+000.00	



BPB COAL LITHOLOGY LOG
BPB COAL LITHOLOGY LOG
CALIBRATION DATA
GAMMA RAY
BULK DENSITY

SEAM THICKNESS LOG

BPB

BOREHOLE [illegible] (2)
CLIENT [illegible]
AREA [illegible]
COUNTRY [illegible]
DATE LOGGED [illegible] — [illegible] 1985
DEPTH SCALE 1:100

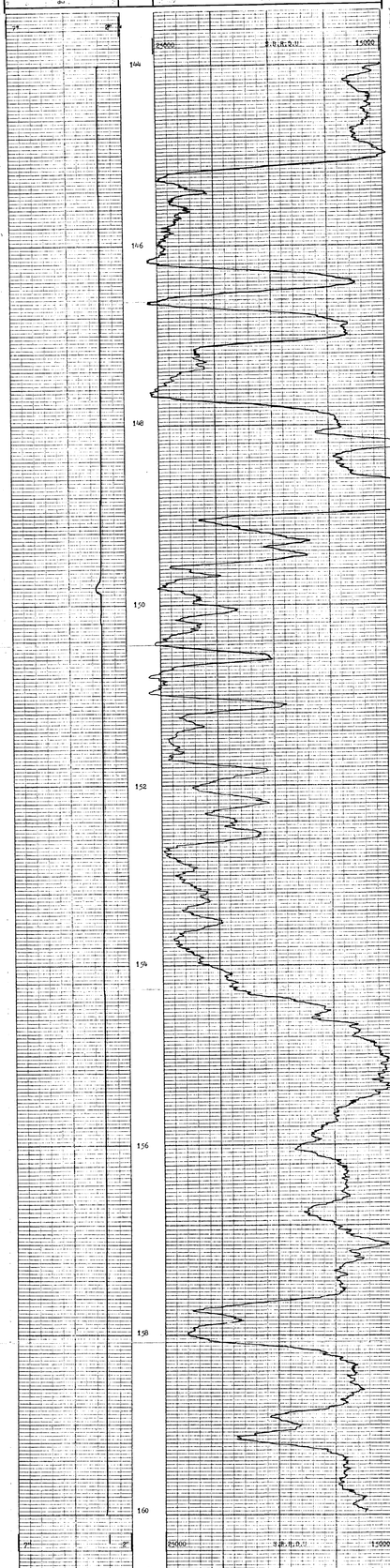
BOREHOLE DATA — REFER TO LITHOLOGY LOG
OPERATION DATA — REFER TO LITHOLOGY LOG
EQUIPMENT AND RECORDING DATA
COAL COMBINATION SONDE

LOG	TRACK	SPACING	SPEED	SCALE

SONDE TYPE
COAL COMBINATION SONDE
SONDE SERIAL NO.
SEAM THICKNESS LOG INTERVALS
FROM
TO
INTERNAL
TO
TOTAL
CALIPER
B R DENSITY
REMARKS

Tk-Telkom 82(b)1A

B P B SEAM THICKNESS LOG



CALIPER INCHES — DEPTH — BED RESOLUTION DENSITY

BPB

BOREHOLE [illegible] AREA [illegible]
CLIENT [illegible] COUNTRY [illegible]

SEAM THICKNESS LOG

MY86003R

BPB

BOREHOLE TW 820 - 226 (3)
CLIENT Crows Nest Resources Ltd.
AREA Telkwa
COUNTRY Canada
DATE LOGGED 22 July 82
DEPTH SCALE 1:20
2 of 4 LOGS

Tk-Telkwa 8/2/84

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				PANEL		
GAMMA RAY	Y	Y	2	2	2	2	
L.S. DENSITY	2	2	2	2	1/2	1/2	1/2
S. DENSITY	2	2	2	2	1/2	1/2	1/2

SOURCE: SONDE AND CALIBRATION
REFER TO LITHOLOGY LOG

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

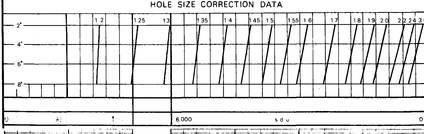
COAL QUALITY LOG INTERVALS

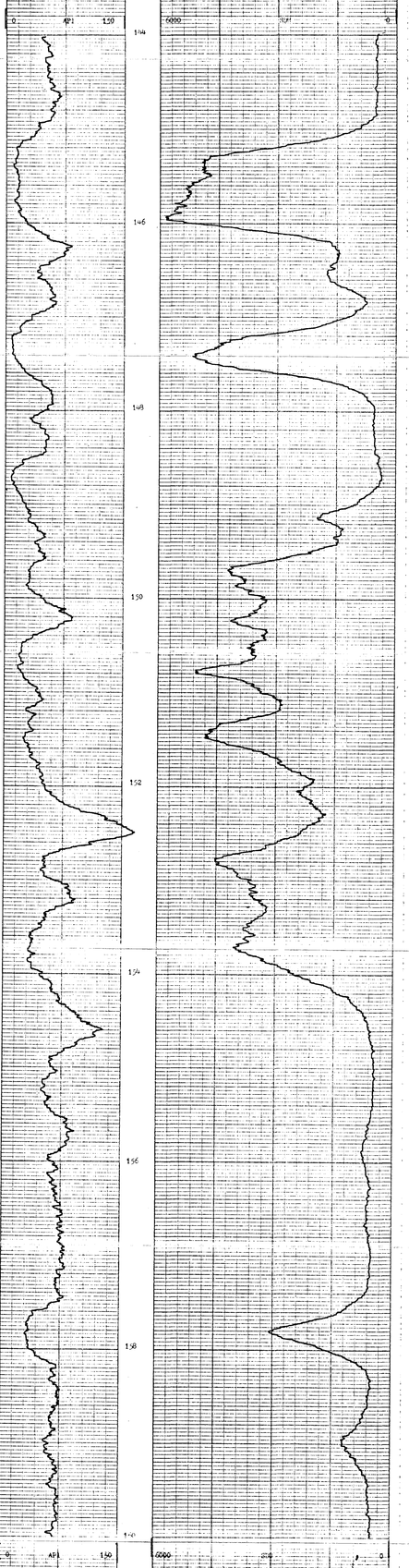
FROM	150		
TO	1.5		
INTERVAL	1.5		
FROM			
TO			
INTERVAL			
REMARKS			

BPB COAL QUALITY LOG

0 API 150	DEPTH	COAL BULK DENSITY g/cm³
GAMMA RAY		

HOLE SIZE CORRECTION DATA



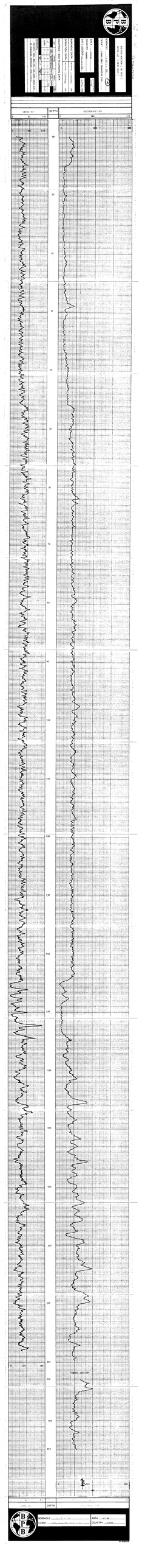


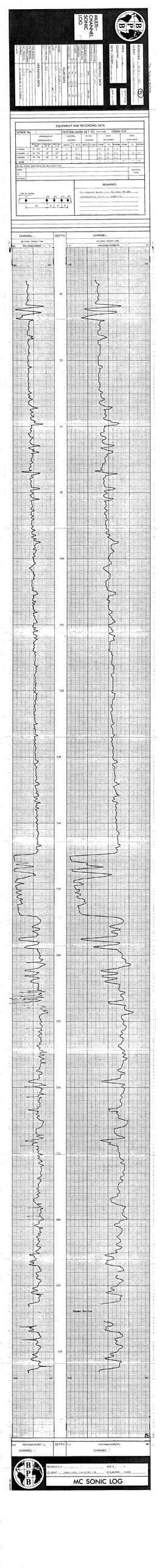
0 API 150		6000 s d u 0
GAMMA RAY		COAL BULK DENSITY g/cm³
	DEPTH	

BPB

BOREHOLE TW 820 - 226
CLIENT Crows Nest Resources Ltd.
AREA Telkwa
COUNTRY Canada

COAL QUALITY LOG





MULTI-CHANNEL SONIC LOG

BP

WELL	
FIELD	
COUNTY	
STATE	
OTHER SERVICES	
SECTION	
TOWNSHIP	
RANGE	
PERMANENT DATUM	GL
ELEV.	
LOG MEASURED FROM	KB
DRILLING MEASURED FROM	KB
DATE	
RUN NO.	
DEPTH-DRILLER	
DEPTH-LOGGER	
BTM. LOG INTERVAL	
TOP LOG INTERVAL	
CASING-DRILLER	
CASING-LOGGER	
BIT SIZE	
TYPE FLUID IN HOLE	
DENSITY	
VISCOSITY	
PH	
FLUID LOSS	
SOURCE OF SAMPLE	
RM @ MEAS. TEMP.	
RMF @ MEAS. TEMP.	
RMC @ MEAS. TEMP.	
SOURCE RMF / RMC	
RM @ BHT	
TIME SINCE CIRC.	
MAX. REC. TEMP.	
EQUIP. LOCATION	
RECORDED BY	
WITNESSED BY	

OPERATING DATA

RUN NO.					
TIME					
SPEED					
TENSION					
CHANNEL					
SENSITIVITY					
TIME CONSTANT					
CALIBRATOR					
CALIBRATOR SENSITIVITY					

FLUID DATA

TYPE FLUID IN HOLE	
DENSITY	
VISCOSITY	
PH	
FLUID LOSS	
SOURCE OF SAMPLE	
RM @ MEAS. TEMP.	
RMF @ MEAS. TEMP.	
RMC @ MEAS. TEMP.	
SOURCE RMF / RMC	
RM @ BHT	
TIME SINCE CIRC.	
MAX. REC. TEMP.	
EQUIP. LOCATION	
RECORDED BY	
WITNESSED BY	

MONITOR DATA

MONITOR	
DATE	
RUN NO.	
DEPTH-DRILLER	
DEPTH-LOGGER	
BTM. LOG INTERVAL	
TOP LOG INTERVAL	
CASING-DRILLER	
CASING-LOGGER	
BIT SIZE	
TYPE FLUID IN HOLE	
DENSITY	
VISCOSITY	
PH	
FLUID LOSS	
SOURCE OF SAMPLE	
RM @ MEAS. TEMP.	
RMF @ MEAS. TEMP.	
RMC @ MEAS. TEMP.	
SOURCE RMF / RMC	
RM @ BHT	
TIME SINCE CIRC.	
MAX. REC. TEMP.	
EQUIP. LOCATION	
RECORDED BY	
WITNESSED BY	

BOREHOLE RECORD	
BIT	
FROM	
TO	
BIT SIZE	
CASING	
TUBING	
TOP LOG INTERVAL	
BOTTOM LOG INTERVAL	
TYPE FLUID IN HOLE	
DENSITY	
VISCOSITY	
PH	
FLUID LOSS	
SOURCE OF SAMPLE	
RM @ MEAS. TEMP.	
RMF @ MEAS. TEMP.	
RMC @ MEAS. TEMP.	
SOURCE RMF / RMC	
RM @ BHT	
TIME SINCE CIRC.	
MAX. REC. TEMP.	
EQUIP. LOCATION	
RECORDED BY	
WITNESSED BY	

STATION NO.	
DATE	
RUN NO.	
DEPTH-DRILLER	
DEPTH-LOGGER	
BTM. LOG INTERVAL	
TOP LOG INTERVAL	
CASING-DRILLER	
CASING-LOGGER	
BIT SIZE	
TYPE FLUID IN HOLE	
DENSITY	
VISCOSITY	
PH	
FLUID LOSS	
SOURCE OF SAMPLE	
RM @ MEAS. TEMP.	
RMF @ MEAS. TEMP.	
RMC @ MEAS. TEMP.	
SOURCE RMF / RMC	
RM @ BHT	
TIME SINCE CIRC.	
MAX. REC. TEMP.	
EQUIP. LOCATION	
RECORDED BY	
WITNESSED BY	

EQUIPMENT AND RECORDING DATA

SONDE No. 1 CENTRALIZERS SET TO 14 inches DIAMETER

	TRANSMITTER APPROXIMATE				CABLE		DATA LOGGING		DATA RECORDED		DATA DISPLAYED	
	DISTANCE	ANGLE	DISTANCE	ANGLE	TYPE	LENGTH	TIME CONSTANT	SPEED	TIME CONSTANT	SPEED	TIME CONSTANT	SPEED
CHANNEL 1	8'-0"	0°	8'-0"	0°			1	10'	1	10'	1	10'
CHANNEL 2	8'-0"	0°	8'-0"	0°			1	10'	1	10'	1	10'
CHANNEL 3	8'-0"	0°	8'-0"	0°			1	10'	1	10'	1	10'
CHANNEL 4	8'-0"	0°	8'-0"	0°			1	10'	1	10'	1	10'
NOTE:												
TOTAL CABLE DEPTH AFTER LOG												
FROM												
TO												
BOTTOM												

TOP OF SONDE

4"	4"	4"	4"
4"	4"	4"	4"

REMARKS

[illegible]

CHANNEL 1	DEPTH	CHANNEL 1
NEUTRON TRANSIT TIME		NEUTRON TRANSIT TIME
140 MICROSECONDS/ft. 40		140 MICROSECONDS/ft. 40
140	50	140
	60	
	70	
	80	
	90	
	100	
	110	
	120	
	130	
	140	
	150	
	160	
	170	
	180	
	190	
	200	
	210	
	220	
140	230	140
140 MICROSECONDS/ft. 40	DEPTH	140 MICROSECONDS/ft. 40
CHANNEL 1		CHANNEL 1

BP

BOREHOLE AREA

CLIENT [illegible] COUNTRY [illegible]

MC SONIC LOG

Tk-Telkwa 82(3)A

MULTI-CHANNEL SONIC LOG

BPB

BOREHOLE Tk 82 B - 226
CLIENT Crows Nest Resources Ltd.
AREA Telkwa
COUNTRY Canada
DATE LOGGED 22 July 82
DEPTH SCALE 1:100
1 OF 3 LOGS

BOREHOLE DATA

PERMANENT DATUM	Ground Level	
ELEVATION OF PD	[illegible]	
MEASUREMENTS FROM	G.L.	
DEPTH REACHED	BPB 213.1 m	DRILLER 213.4 m
CASING SHOE	46m	46m
BIT SIZES	1 Nq TO	2 TO
CASING SIZES	1 Hw TO 46m	2 TO

FLUID DATA

NATURE	Upper inlet / water
S.G.	N/A
LEVEL	
VISCOSITY	
Rm at meas temp	N/A
BHT	

OPERATION DATA

FIRST READING	213m
LAST READING	58m
INTERVAL LOGGED	155m
UNIT-TRUCK No	
ENGINEER	26/32
WITNESS	W.Cavendish & D.Fisher

EQUIPMENT AND RECORDING DATA

SONDE No. 310 — CENTRALISERS SET TO Removed — DIAMETER

	TRANSDUCER ARRANGEMENT RECEIVER PAIR	SPACING R-R	SPACING T-R	GENERAL LOGGING SPEED	TC SECS	DETAIL LOGGING SPEED	TC SECS	DATA RECORDED FROM	TO	INTERVAL	DATA DISPLAYED FROM	TO	INTERVAL
CHANNEL 1	R1 - R2	8"	24"	9	1/3			213	58	155	213	58	155
CHANNEL 2	R2 - R4	16"	32"	9	1/3			213	58	155			
CHANNEL 3	R1 - R4	24"	24"	9	1/3			213	58	155	213	58	155
CHANNEL 4	R3 - R4	8"	40"	9	1/3			213	58	155			

DETAIL ZONES DISPLAYED (SEE RELEVANT LOG)

FROM
TO
INTERVAL

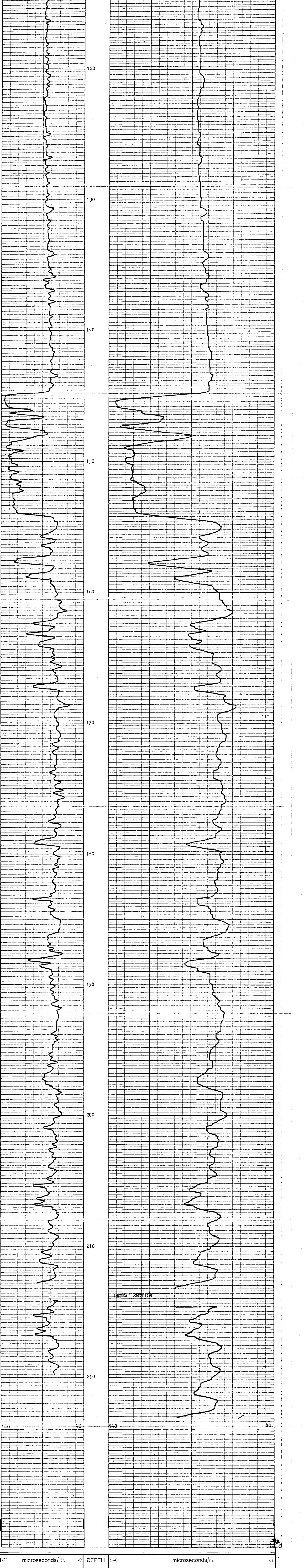
INTERVAL TOTAL

TOP OF SONDE — T, R1, R2, R3, R4 — 24", 8", 8", 8"

REMARKS

No logging above 58m as tool became temporarily stuck in borehole

CHANNEL 1 — INTERVAL TRANSIT TIME — 140 microseconds/ft 40 — DEPTH — CHANNEL 3 — INTERVAL TRANSIT TIME — 140 microseconds/ft 40



140 microseconds/ft 40 — DEPTH — 140 microseconds/ft 40
CHANNEL 1 — CHANNEL 3

BPB

BOREHOLE Tk 82 B - 226
AREA Telkwa
CLIENT Crows Nest Resources Ltd.
COUNTRY Canada

MC SONIC LOG

TK-Telkwa 82(3)A Page 1 of 2

Directional Survey

TW-82D-227

LOG DEPTH	0250.00	
TRUE DEPTH	0249.77	
TILT	2.33	DG
BEARING	149.95	DG
NORTHING	-010.31	
EASTING	+001.59	

LOG DEPTH	0240.00	
TRUE DEPTH	0239.78	
TILT	2.90	DG
BEARING	176.09	DG
NORTHING	-009.96	
EASTING	+001.38	

LOG DEPTH	0230.00	
TRUE DEPTH	0229.79	
TILT	2.83	DG
BEARING	174.46	DG
NORTHING	-009.46	
EASTING	+001.35	

LOG DEPTH	0220.00	
TRUE DEPTH	0219.80	
TILT	2.69	DG
BEARING	158.66	DG
NORTHING	-008.96	
EASTING	+001.30	

LOG DEPTH	0210.00	
TRUE DEPTH	0209.81	
TILT	2.54	DG
BEARING	162.67	DG
NORTHING	-008.53	
EASTING	+001.13	

LOG DEPTH	0200.00	
TRUE DEPTH	0199.82	
TILT	2.69	DG
BEARING	177.67	DG
NORTHING	-008.10	
EASTING	+001.00	

LOG DEPTH	0190.00	
TRUE DEPTH	0189.83	
TILT	2.55	DG
BEARING	165.80	DG
NORTHING	-007.63	
EASTING	+000.90	

LOG DEPTH	0180.00	
TRUE DEPTH	0179.84	
TILT	2.47	DG
BEARING	155.33	DG
NORTHING	-007.20	
EASTING	+000.87	

LOG DEPTH	0170.00	
TRUE DEPTH	0169.85	
TILT	2.76	DG
BEARING	189.34	DG
NORTHING	-006.81	
EASTING	+000.69	

LOG DEPTH	0160.00	
TRUE DEPTH	0159.86	
TILT	2.61	DG
BEARING	204.47	DG
NORTHING	-006.33	
EASTING	+000.77	

LOG DEPTH	0150.00	
TRUE DEPTH	0149.87	
TILT	2.61	DG
BEARING	175.10	DG
NORTHING	-005.92	
EASTING	+000.96	

LOG DEPTH	0140.00	
TRUE DEPTH	0139.88	
TILT	2.90	DG
BEARING	156.12	DG
NORTHING	-005.46	
EASTING	+000.92	

LOG DEPTH	0130.00	
TRUE DEPTH	0129.89	
TILT	2.84	DG
BEARING	190.52	DG
NORTHING	-005.00	
EASTING	+000.71	

LOG DEPTH	0120.00	
TRUE DEPTH	0119.90	
TILT	2.90	DG
BEARING	192.45	DG
NORTHING	-004.51	
EASTING	+000.80	

TK-Telkun 82(3)A
Page 2 of 2

TW-82D-227

LOG DEPTH	0110.00	
TRUE DEPTH	0109.91	
TILT	3.11	DG
BEARING	164.25	DG
NORTHING	-004.02	
EASTING	+000.91	

LOG DEPTH	0100.00	
TRUE DEPTH	0099.92	
TILT	2.98	DG
BEARING	185.62	DG
NORTHING	-003.49	
EASTING	+000.77	

LOG DEPTH	0090.00	
TRUE DEPTH	0089.93	
TILT	2.64	DG
BEARING	180.45	DG
NORTHING	-002.97	
EASTING	+000.82	

LOG DEPTH	0080.00	
TRUE DEPTH	0079.94	
TILT	2.34	DG
BEARING	146.26	DG
NORTHING	-002.51	
EASTING	+000.82	

LOG DEPTH	0070.00	
TRUE DEPTH	0069.95	
TILT	2.48	DG
BEARING	147.85	DG
NORTHING	-002.17	
EASTING	+000.59	

LOG DEPTH	0060.00	
TRUE DEPTH	0059.96	
TILT	2.70	DG
BEARING	163.97	DG
NORTHING	-001.81	
EASTING	+000.36	

LOG DEPTH	0050.00	
TRUE DEPTH	0049.97	
TILT	2.84	DG
BEARING	186.09	DG
NORTHING	-001.35	
EASTING	+000.23	

LOG DEPTH	0040.00	
TRUE DEPTH	0039.98	
TILT	2.90	DG
BEARING	179.64	DG
NORTHING	-000.86	
EASTING	+000.29	

LOG DEPTH	0030.00	
TRUE DEPTH	0029.99	
TILT	2.62	DG
BEARING	141.15	DG
NORTHING	-000.35	
EASTING	+000.28	

LOG DEPTH	0020.00	
TRUE DEPTH	0020.00	
TILT	2.28	DG
BEARING	121.27	DG
NORTHING	+000.00	
EASTING	+000.00	

(1)

COAL LITHOLOGY LOG

BOREHOLE: TW 82 D - 227
CLIENT: Crows Nest Resources Ltd
AREA: Telkwa
COUNTRY: Canada
DATE LOGGED: 24 July 82
DEPTH SCALE 1:100
1 of 6 LOGS

T.K-Telkwa 82(3)A

SONDE TYPE: COAL COMBINATION SONDE

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

BOREHOLE DATA

PERMANENT DATUM	Ground Level			
ELEVATION OF P.D.				
MEASUREMENTS FROM	BPB G.L.		DRILLER G.L.	
DEPTH REACHED	254m		255m	
CASING SHOE	9.6m		9.75m	
BIT SIZES	1	NQ TO TD	2	TO
	3	TO	4	TO
CASING SIZES	1	4½" TO 9.75	2	TO

FLUID DATA

NATURE	Super Gelex Water
S.G.	.98
LEVEL	
VISCOSITY	
Rm at meas temp	8.5 ohm.metres @ 7°C
BHT	

OPERATION DATA

FIRST READING	253m
LAST READING	0
INTERVAL LOGGED	253m
UNIT-TRUCK No	26/218
ENGINEER	W.Cavendish & D.Fisher
WITNESS	

EQUIPMENT AND RECORDING DATA

COAL COMBINATION SONDE

LOG	EQUIPMENT: SONDE	SOURCE	CALIBRATOR	TAPING: LOG TAPED	RECORD SPEED	DIRECT or REPLAY	PANEL: SPEED	TC SECS	NORM	CAL COEFF	DEPTHS: FROM	TO	INTERVAL	SEAM LOG RUN
GAMMA RAY	119B		371	Y	9	D	9	1		1.65	253	0	253	Y
L.S. DENSITY		5821	0336	Y	9	D	9	1/3	7.26		253	0	253	Y
CALIPER	SIDEWALL POSITION			Y	9	D	9	1/3			253	0	253	Y

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

					INTERVAL TOTAL
FROM	232	66	31	16	
TO	217	60	21	8	
INTERVAL	15	6	10	8	= 39

ADDITIONAL SONDES RUN

SONDE	LOG	GENERAL SCALE LOG	DETAIL SCALE LOG	
216	N-N	1:100		REFER TO ADDITIONAL HEADINGS
310	MCS	1:100		
206	F.E.	1:100		
215	Vert.			

REMARKS

BPB COAL LITHOLOGY LOG

CALIBRATION DATA

JIG No 371 VALUE 494@ 2 DIAM
JIG MARK SHOWN AT ABOVE VALUE - 10

JIG CAL DATE 06.07.82 JIG VALUE 5740 SDU@1.32 g/cm³ 7 ins 603 cps
JIG No 0336 SPAN NORM SDU/CPS - 7.26 2 ins 293 cps

GAMMA RAY	DEPTH	BULK DENSITY g/cm³	CALIPER INCHES

HOLE SIZE CORRECTION DATA

OB	LOOSE OVERBURDEN	COAL	COAL
SHALEY/COAL	SHALEY COAL	CARB/SH	CARBONACEOUS SHALE
COALY/SH	COALY SHALE	SH	SHALE
MDST	MUDSTONE	SLST	SILTSTONE
SS1	SANDSTONE (FINE)	SS2	SANDSTONE (MEDIUM)
SS3	SANDSTONE (COARSE)	SS4	SANDSTONE (CONG)
CONG	CONGLOMERATE	IRST	IRONSTONE
VOLC	IGNEOUS		

BOREHOLE TW 82 D - 227
CLIENT Crows Nest Resources Ltd.
AREA Telkwa
COUNTRY Canada
DATE LOGGED 24 July 82
DEPTH SCALE 1:20
2 OF 6 LOGS

COAL QUALITY LOG

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

SONDE TYPE: COAL COMBINATION SONDE
LOG SUITE: GAMMA RAY, LS DENSITY

SOURCE SONDE AND CALIBRATION
REFER TO LITHOLOGY LOG
COAL QUALITY LOG INTERVALS
REMARKS

BPB COAL QUALITY LOG

GAMMA RAY | DEPTH | COAL BULK DENSITY g/cm3

HOLE SIZE CORRECTION DATA

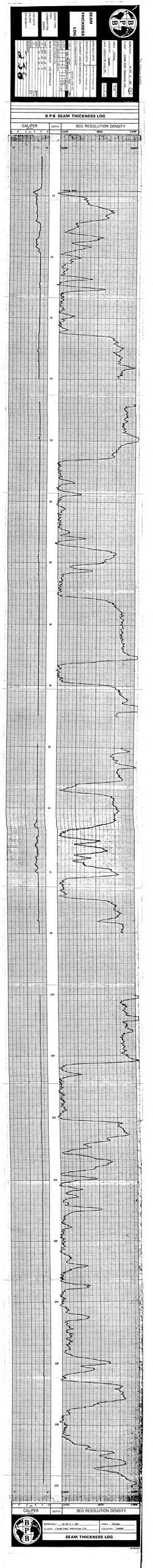
0 API 150 | | 6.000 sdu 0

0 API 150 | | 6.000 sdu 0

GAMMA RAY | DEPTH | COAL BULK DENSITY g/cm3

BOREHOLE TW 82 D - 227
CLIENT Crows Nest Resources Ltd
AREA Telkwa
COUNTRY Canada

COAL QUALITY LOG


B P B
SEAM THICKNESS LOG
BOREHOLE
CLIENT
LOCATION
COUNTY
STATE
COUNTRY
DATE RECORDED
RUN NO.
DEPTH DRILLER
DEPTH LOGGER
BTM LOG INTERVAL
TOP LOG INTERVAL
CASING DRILLER
CASING LOGGER
BIT SIZE
TYPE FLUID IN HOLE
DENSITY
VISCOSITY
PH
FLUID LOSS
SOURCE OF SAMPLE
RM @ MEAS TEMP
RMF @ MEAS TEMP
RMC @ MEAS TEMP
SOURCE RMF RMC
RM @ BHT
TIME CIRC
TIME LOGGER ON BTM
MAX REC TEMP
EQUIPMENT NUMBER
LOCATION
RECORDED BY
WITNESSED BY
DENSITY
CALIPER
DEPTH
BED RESOLUTION DENSITY
SEAM THICKNESS LOG

GAMMA RAY & NEUTRON-NEUTRON (4)

T.K. Telkwa 82(3)A

BOREHOLE TW 82D - 227
CLIENT Crows Nest Resources Ltd.

AREA Telkwa
COUNTRY Canada
DATE LOGGED 24 July 82

DEPTH SCALE 1:100

4 OF 6 LOGS

BOREHOLE DATA REFER TO Lithology LOG

OPERATION DATA REFER TO Lithology LOG

EQUIPMENT AND RECORDING DATA

LOG	TAPING		PANEL			
	LOG TAPED	RECORD SPEED	DIRECT OR REPLAY	SPEED	T.C. SECS	NORM	CAL COEFF
Gamma	Y	9	R	9	1		1.65
N-N	Y	9	D	9	1	.782	

SONDE NO 216 SOURCE NO 2479

REMARKS

GAMMA RAY	DEPTH	NEUTRON-NEUTRON
0 API 150		0 SNU 500

BOREHOLE TW82D-227
CLIENT Crows Nest Resources Ltd
AREA Telkwa
COUNTRY Canada

MY A584S2R

Tk-Telkwa 82(3)A

FOCUSSED ELECTRIC (5)

BOREHOLE TW 82D - 227
CLIENT Crows Nest Resources Ltd.

AREA Telkwa
COUNTRY Canada
DATE LOGGED 24 July 82

DEPTH SCALE 1:100

5 OF 6 LOGS

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

EQUIPMENT AND RECORDING DATA

LOG	TAPING			PANEL			
	LOG TAPED	RECORD SPEED	DIRECT OR REPLAY	SPEED	T C SECS	NORM	CAL COEFF
F.E.	Y	9	D	9	-		

SONDE NO	226	SOURCE NO	

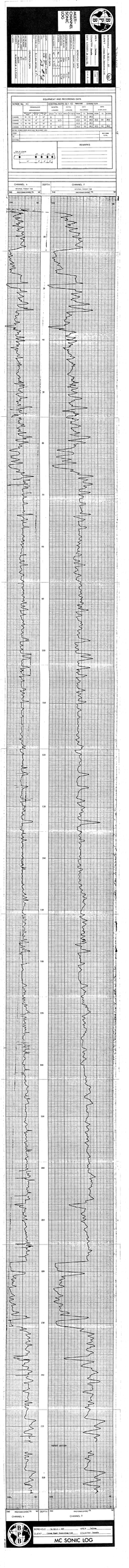
REMARKS
Mud Resistivity 8.5 ohm.metres @ 7° C.

	DEPTH	FOCUSSED ELECTRIC
		5 ohm.metres 5000

		5 ohm.metres 5000
	DEPTH	FOCUSSED ELECTRIC

BOREHOLE TW 82D - 227
CLIENT Crows Nest Resources Ltd.
AREA Telkwa
COUNTRY Canada

MY A58452R


CHANNEL A
CHANNEL B
DEPTH
CHANNEL A
CHANNEL B
MC SONIC LOG

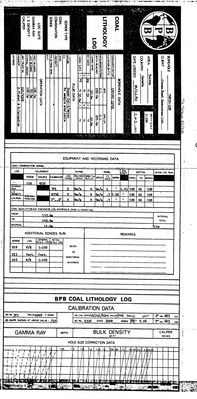
TR Tarkwa 82(3)A

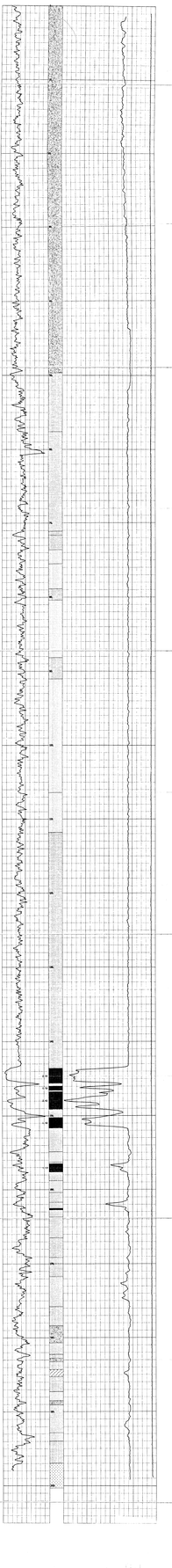
Directional Survey

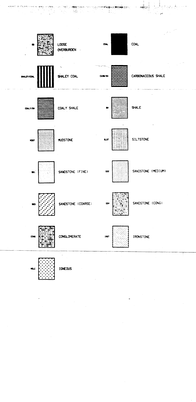
TW-32D-223

LOG DEPTH	0190.00	
TRUE DEPTH	0189.89	
TILT	2.19	DG
BEARING	236.54	DG
NORTHING	-004.13	
EASTING	-001.17	
LOG DEPTH	0180.00	
TRUE DEPTH	0179.90	
TILT	2.19	DG
BEARING	237.13	DG
NORTHING	-003.91	
EASTING	-000.85	
LOG DEPTH	0170.00	
TRUE DEPTH	0169.91	
TILT	2.33	DG
BEARING	202.13	DG
NORTHING	-003.71	
EASTING	-000.53	
LOG DEPTH	0160.00	
TRUE DEPTH	0159.92	
TILT	2.19	DG
BEARING	194.67	DG
NORTHING	-003.33	
EASTING	-000.38	
LOG DEPTH	0150.00	
TRUE DEPTH	0149.93	
TILT	1.98	DG
BEARING	185.55	DG
NORTHING	-002.96	
EASTING	-000.28	
LOG DEPTH	0140.00	
TRUE DEPTH	0139.94	
TILT	1.98	DG
BEARING	183.80	DG
NORTHING	-002.61	
EASTING	-000.25	
LOG DEPTH	0130.00	
TRUE DEPTH	0129.95	
TILT	2.12	DG
BEARING	184.76	DG
NORTHING	-002.27	
EASTING	-000.23	

LOG DEPTH	0120.00	
TRUE DEPTH	0119.96	
TILT	2.19	DG
BEARING	202.76	DG
NORTHING	-001.90	
EASTING	-000.20	
LOG DEPTH	0110.00	
TRUE DEPTH	0109.97	
TILT	1.83	DG
BEARING	185.27	DG
NORTHING	-001.55	
EASTING	-000.05	
LOG DEPTH	0100.00	
TRUE DEPTH	0099.98	
TILT	1.62	DG
BEARING	162.73	DG
NORTHING	-001.23	
EASTING	-000.02	
LOG DEPTH	0090.00	
TRUE DEPTH	0089.98	
TILT	1.91	DG
BEARING	188.91	DG
NORTHING	-000.95	
EASTING	-000.10	
LOG DEPTH	0080.00	
TRUE DEPTH	0079.99	
TILT	1.98	DG
BEARING	194.25	DG
NORTHING	-000.62	
EASTING	-000.05	
LOG DEPTH	0070.00	
TRUE DEPTH	0070.00	
TILT	1.69	DG
BEARING	174.21	DG
NORTHING	-000.29	
EASTING	+000.02	
LOG DEPTH	0060.00	
TRUE DEPTH	0060.00	
TILT	1.41	DG
BEARING	157.14	DG
NORTHING	+000.00	
EASTING	+000.00	


COAL LITHOLOGY LOG
EQUIPMENT AND RECORDING DATA
BPB COAL LITHOLOGY LOG
CALIBRATION DATA
GAMMA RAY
BULK DENSITY
HOLE SIZE CORRECTION DATA




LOOSE OVERBURDEN
COAL
BAILEY COAL
CARBONACEOUS SHALE
COAL SHALE
SHALE
MUDSTONE
SILTSTONE
SANDSTONE (FINE)
SANDSTONE (MEDIUM)
SANDSTONE (COARSE)
SANDSTONE (CONG.)
CONGLOMERATE
CHERT/FLINT
CEMENTED

BPB

COAL QUALITY LOG

BOREHOLE TW82-228
CLIENT Crows Nest Resources Ltd.

AREA Telkwa
COUNTRY Canada
DATE LOGGED 28/10/82

2 OF 2 LOGS

DEPTH SCALE 1:120

BOREHOLE DATA — REFER TO LITHOLOGY LOG

OPERATION DATA — REFER TO LITHOLOGY LOG

EQUIPMENT AND RECORDING DATA

COAL COMBINATION SONDE

SIDEWALL POSITION

LOG	SERIAL NO.	RECORDING PANEL	SPEED	TIME CONSTANT	CHANNEL
GAMMA RAY	104	2m/h	2m/h	2 sec	1
DENSITY	104	2m/h	2m/h	2 sec	2
L.S DENSITY	Y	2m/h	2m/h	2 sec	3
SOURCE SONDE AND CALIBRATION		8	2m/h	7.28	

REFER TO LITHOLOGY LOG

COAL QUALITY LOG INTERVALS

	FROM	TO
CENTRAL	13.0m	142.0m
PRIMARY	11.0m	

CENTRAL	
PRIMARY	
SECONDARY	
TOTAL	
ROTARY	
VOL.	
WIRELINE	

REMARKS TC3.5R(2)

LOG SUITE
GAMMA RAY
L.S DENSITY

SONDE TYPE :
COAL
COMBINATION
SONDE

COAL
QUALITY
LOG

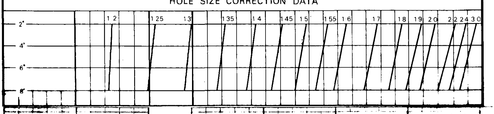
The Action Engineering Co. Ltd.

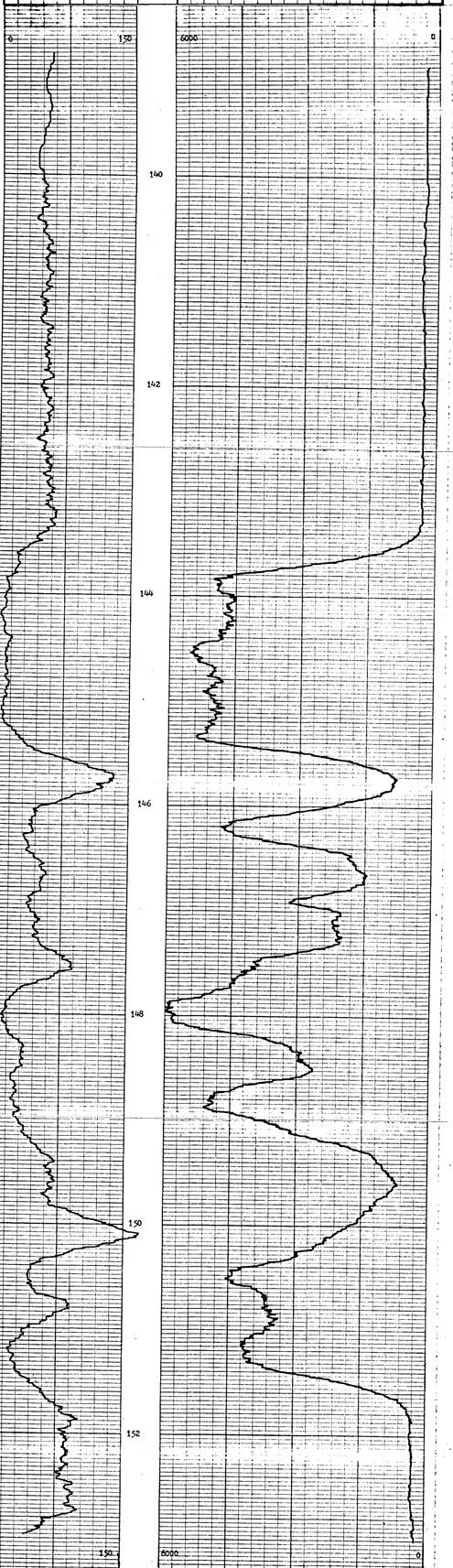
BPB COAL QUALITY LOG

0 API 120 | DEPTH | 6000 SDU 0

GAMMA RAY | COAL BULK DENSITY g/cm³

HOLE SIZE CORRECTION DATA





GAMMA RAY | DEPTH | COAL BULK DENSITY g/cm³

0 API 120 | 6000 SDU 0

BPB

BOREHOLE TW82-228
CLIENT Crows Nest Resources Ltd.

AREA Telkwa
COUNTRY Canada

COAL QUALITY LOG

AM 480107 A

BPB

SEAM THICKNESS LOG

SONDE TYPE: COAL COMBINATION SONDE

LOG SUITE: CALIPER B.R. DENSITY

BOREHOLE TW82D-228 (3)

CLIENT Crows Nest Resources Ltd.

AREA Telkwa

COUNTRY Canada

DATE LOGGED 24/Jul/82

DEPTH SCALE 1:20

2 OF 5 LOGS

TK-Telkwa 82(3)A

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

LOG	TAPING			PANEL		
	LOG TAPED	RECORDING SPEED	RECTIFIER TYPE	SPEED	SENS	NORM	COEFF
CALIPER	Y	2m/m	R	2m/m	1		
B.R. DENSITY	Y	2m/m	R	2m/m	.3	2.17	*

SOURCE SONDE AND CALIBRATION

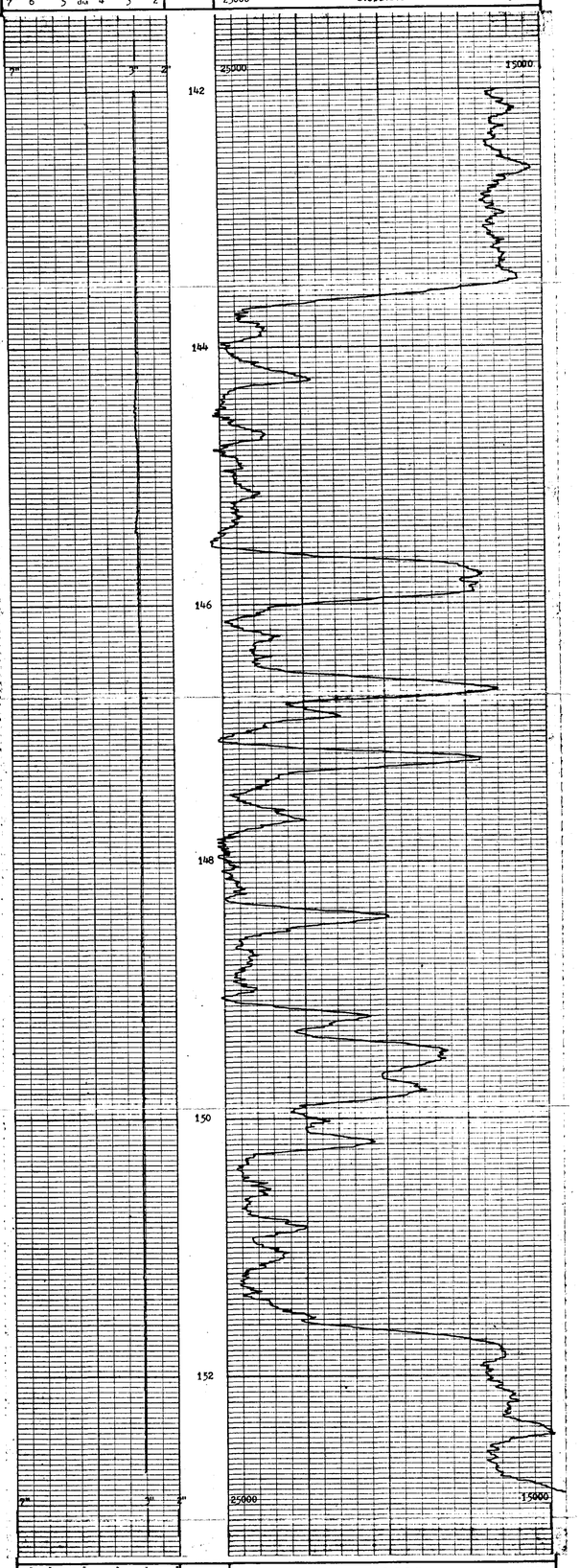
REFER TO LITHOLOGY LOG

SEAM THICKNESS LOG INTERVALS

FROM	153.0m		
TO	142.0m		
INTERVAL	11.0m	INTERVAL	
FROM		TOTAL	
TO			
INTERVAL			* 11

REMARKS

B P B SEAM THICKNESS LOG



7" 6" 5" dia 4" 3" 2"		25000 S.B.R.D.U 15000	
CALIPER INCHES	DEPTH	BED RESOLUTION DENSITY	

BPB

BOREHOLE TW82D-228

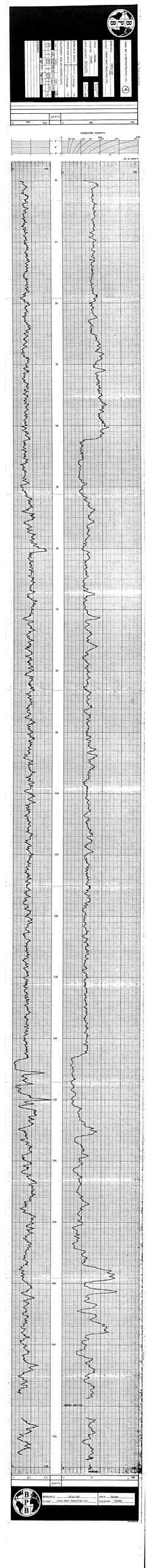
CLIENT Crows Nest Resources Ltd.

AREA Telkwa

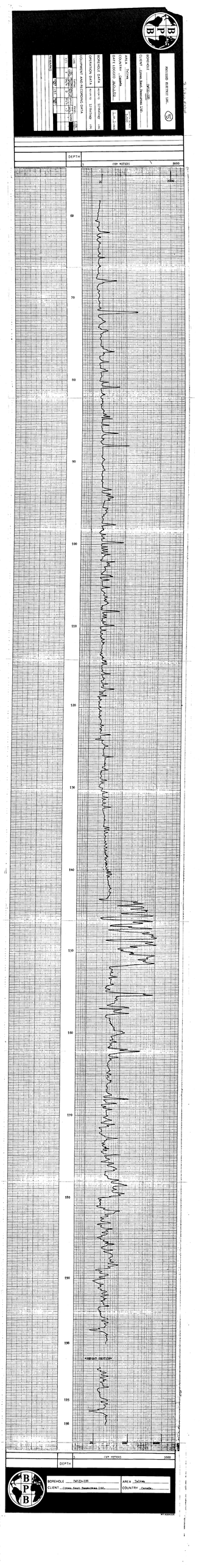
COUNTRY Canada

SEAM THICKNESS LOG

MT 88002 R



BPB
CLIENT: Canex Gas Resources Ltd.
WELL: Dawson 2-D-22-60
AREA: Dawson
COUNTY: Canada
SANDSTONE POROSITY



PROCESSED ELECTRIC LOG. (5)

BOREHOLE: Cominco Test Hole 228
CLIENT: Cominco Resources Ltd.
AREA: Yukon
COUNTRY: Canada
DATE LOGGED: 24/4/79
RUN: 1
TIME: 9.00 hrs
OPERATION DATA: RUN 1 TO 1180.0 MD
RUN 1 TO 1180.0 MD
EQUIPMENT AND RECORDING DATA: 1 CHANNEL
PAPER: 1 CHANNEL
SCALE: 1 CHANNEL
SCALE: 1 CHANNEL
REMARKS: NO FLUID IN HOLE

DEPTH

CPS METERS 5000

0 2000

60 70 80 90 100 110 120 130 140 150 160 170 180 190 195 198

"RIGHT SIDE"

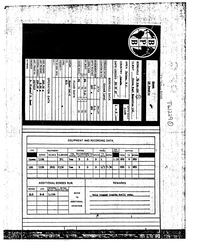
0 20 100 2000

CPS METERS 5000

DEPTH

BOREHOLE 79-228
CLIENT Cominco Test Resources Ltd.
AREA Yukon
COUNTRY Canada

TW 229



EQUIPMENT AND RECORDING DATA

RUN	DATE	DEPTH DRILLER	DEPTH LOGGER	BOTTOM LOGGED INTERVAL	TOP LOGGED INTERVAL	CASING DRILLER	CASING LOGGER	BIT SIZE	TYPE FLUID IN HOLE	DENSITY	VISCOSITY	PH	FLUID LOSS	SOURCE OF SAMPLE	RM @ MEAS TEMP	RMF @ MEAS TEMP	RMC @ MEAS TEMP	SOURCE RMF / RMC	RM @ BHT	TIME CIRC	TIME LOGGER ON BOTTOM	MAX REC TEMP	EQUIP LOCATION	RECORDED BY	WITNESSED BY

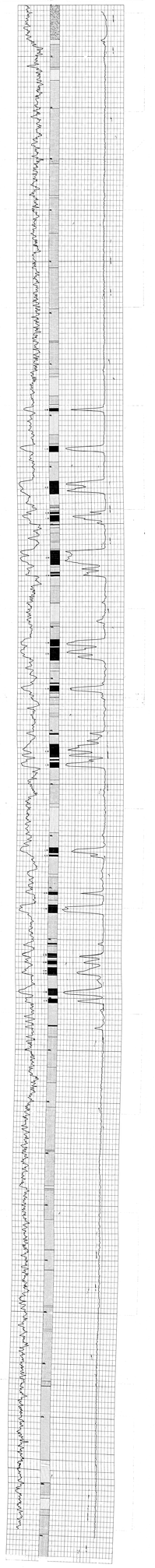
CASING RUN

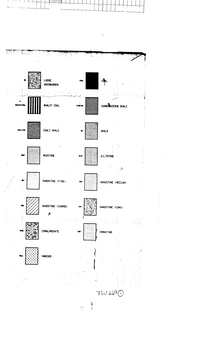
NO.	SIZE	WEIGHT	GRADE	FROM	TO

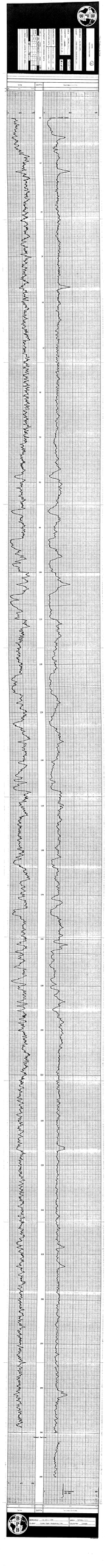
BOREHOLE RECORD

NO.	BIT SIZE	FROM	TO

REMARKS



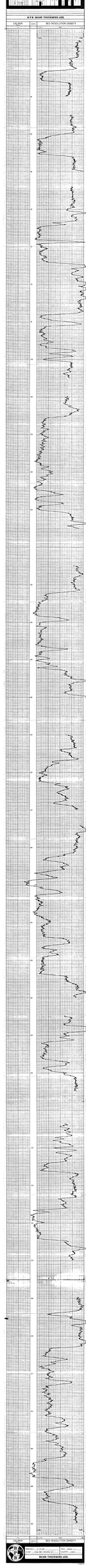




WELL	[illegible]
FIELD	[illegible]
COUNTY	[illegible]
STATE	[illegible]
LOCATION	[illegible]
API NO.	[illegible]
SECTION	[illegible]
TOWNSHIP	[illegible]
RANGE	[illegible]
ELEVATION	[illegible]
DATE	[illegible]
RUN NO.	[illegible]
DEPTH-DRILLER	[illegible]
DEPTH-LOGGER	[illegible]
BTM. LOG INTERVAL	[illegible]
TOP LOG INTERVAL	[illegible]
CASING-DRILLER	[illegible]
CASING-LOGGER	[illegible]
BIT SIZE	[illegible]
TYPE FLUID IN HOLE	[illegible]
DENSITY	[illegible]
VISCOSITY	[illegible]
PH	[illegible]
FLUID LOSS	[illegible]
SOURCE OF SAMPLE	[illegible]
RM @ MEAS. TEMP.	[illegible]
RMF @ MEAS. TEMP.	[illegible]
RMC @ MEAS. TEMP.	[illegible]
SOURCE RMF / RMC	[illegible]
RM @ BHT	[illegible]
TIME CIRC. STOPPED	[illegible]
TIME LOGGER ON BOTTOM	[illegible]
MAX. REC. TEMP.	[illegible]
EQUIP. NO.	[illegible]
LOCATION	[illegible]
RECORDED BY	[illegible]
WITNESSED BY	[illegible]

B P B SEAM THICKNESS LOG

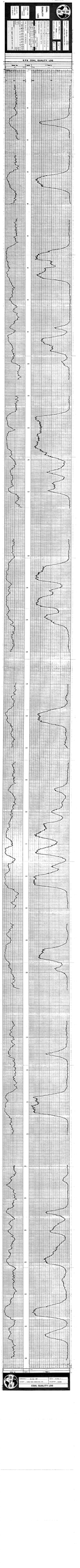
CALIPER	DEPTH	BED RESOLUTION DENSITY



CALIPER	DEPTH	BED RESOLUTION DENSITY

COMPANY: [illegible]	DATE: [illegible]
WELL: [illegible]	FIELD: [illegible]
COUNTY: [illegible]	STATE: [illegible]

SEAM THICKNESS LOG



COAL QUALITY LOG

TW 230

BP

WELL NAME: [illegible]

LOCATION: [illegible]

DRILLING CONTRACTOR: [illegible]

RIG: [illegible]

DATE: [illegible]

COUNTY/PARISH: [illegible]

STATE: [illegible]

PERMANENT DATUM: [illegible]

ELEV.: K.B. [illegible] D.F. [illegible] G.L. [illegible]

LOG MEASURED FROM: [illegible]

DRILLING MEASURED FROM: [illegible]

RUN NO.	DATE	TYPE LOG	DEPTH-DRILLER	DEPTH-LOGGER	BTM. LOG INTERVAL	TOP LOG INTERVAL	CASING-DRILLER	CASING-LOGGER	BIT SIZE	TYPE FLUID IN HOLE	DENS.	VISC.	PH	FLUID LOSS	SOURCE OF SAMPLE	RM @ MEAS. TEMP.	RMF @ MEAS. TEMP.	RMC @ MEAS. TEMP.	SOURCE RMF / RMC	RM @ BHT	TIME SINCE CIRC.	MAX. REC. TEMP.	EQUIP. LOCATION	RECORDED BY	WITNESSED BY
ONE																									
TWO																									
THREE																									

EQUIPMENT AND RECORDING DATA

LOG	EQUIPMENT			CASING			PADS			MEAS.	DEPTHS	
	SONDE	SOURCE	CALIBRATION	LOG	RECORDING	SPACE	SIZE	SHAPE	TYPE	TIED TO	BOTTOM
LOG	1196	3921	9235	9	9	9	1/3	SLIM		156	0	156
Sonde	1196		3921	9	9	9	1	SLIM		156	0	156

ADDITIONAL SONDES RUN

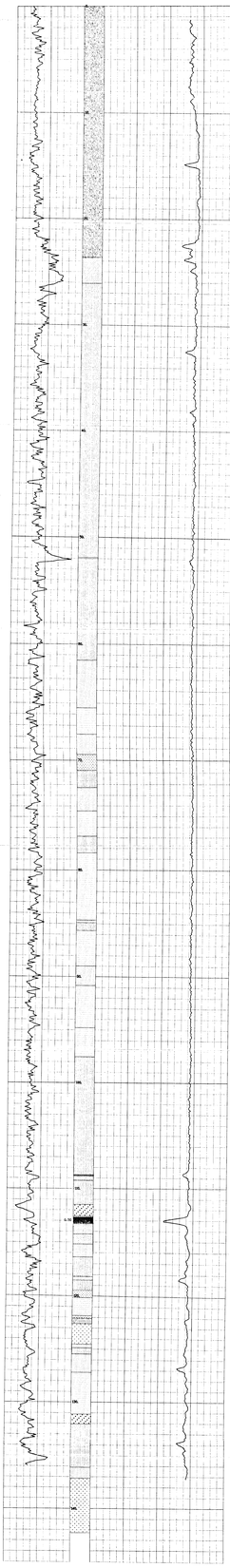
SONDE	LOG	SOURCE & CALIBRATION
256	9.8	1:100

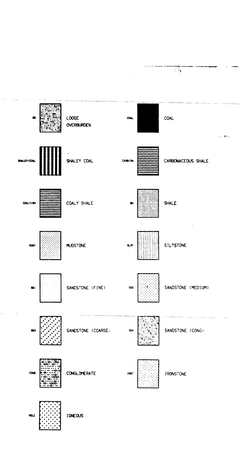
NOTES TO ADDITIONAL HEADINGS

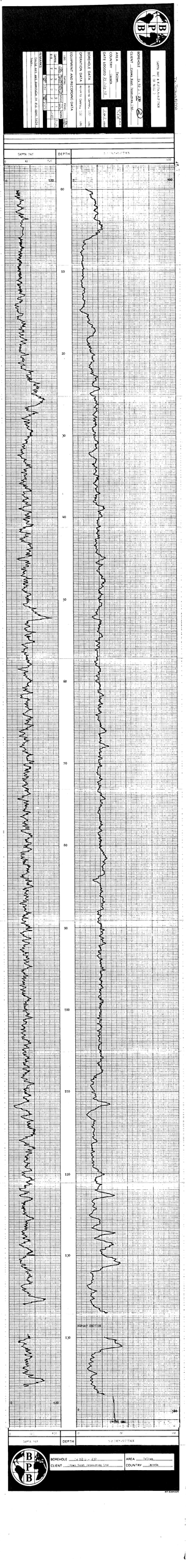
REMARKS

Made out also to get Gamma in the hole.
Hole Dead.

LOG RUN: [illegible] SCALE: [illegible] LONG GUARD SONDE RUN IN CONJUNCTION WITH [illegible]







GAMMA RAY
DEPTH
SUSCEPTIBILITY
0
120
500
00
10
20
30
40
50
60
70
80
90
100
110
120
130
140
RIGHT BOTTOM
CHART SCALE
BOREHOLE
CLIENT
AREA
COUNTRY

TK-Tetkwa 82(3)A

Directional survey

238

LOG DEPTH	0210.00
TRUE DEPTH	0209.97
TILT	.72 DG
BEARING	137.50 DG
NORTHING	-002.83
EASTING	-002.00

LOG DEPTH	0200.00
TRUE DEPTH	0199.97
TILT	.94 DG
BEARING	188.72 DG
NORTHING	-002.74
EASTING	-002.00

LOG DEPTH	0190.00
TRUE DEPTH	0189.97
TILT	.87 DG
BEARING	231.68 DG
NORTHING	-002.58
EASTING	-002.06

LOG DEPTH	0180.00
TRUE DEPTH	0179.97
TILT	.98 DG
BEARING	226.57 DG
NORTHING	-002.88
EASTING	-001.94

LOG DEPTH	0170.00
TRUE DEPTH	0169.97
TILT	1.20 DG
BEARING	208.86 DG
NORTHING	-002.36
EASTING	-001.81

LOG DEPTH	0160.00
TRUE DEPTH	0159.97
TILT	1.22 DG
BEARING	188.20 DG
NORTHING	-002.18
EASTING	-001.71

LOG DEPTH	0150.00
TRUE DEPTH	0149.97
TILT	1.29 DG
BEARING	189.57 DG
NORTHING	-001.97
EASTING	-001.68

LOG DEPTH	0140.00
TRUE DEPTH	0139.97
TILT	1.62 DG
BEARING	207.46 DG
NORTHING	-001.75

LOG DEPTH	0130.00
TRUE DEPTH	0129.97
TILT	1.56 DG
BEARING	236.57 DG
NORTHING	-001.49
EASTING	-001.51

LOG DEPTH	0120.00
TRUE DEPTH	0119.97
TILT	1.63 DG
BEARING	238.83 DG
NORTHING	-001.34
EASTING	-001.28

LOG DEPTH	0110.00
TRUE DEPTH	0109.97
TILT	1.91 DG
BEARING	224.39 DG
NORTHING	-001.20
EASTING	-001.04

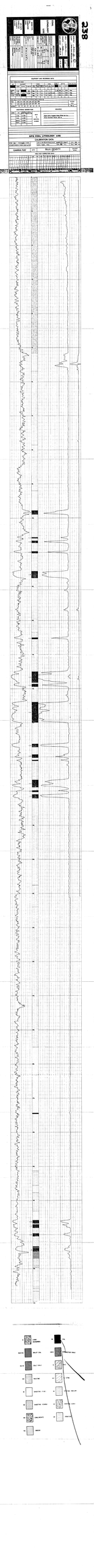
LOG DEPTH	0100.00
TRUE DEPTH	0099.98
TILT	1.50 DG
BEARING	245.12 DG
NORTHING	-000.96
EASTING	-000.81

LOG DEPTH	0090.00
TRUE DEPTH	0089.98
TILT	1.78 DG
BEARING	226.76 DG
NORTHING	-000.85
EASTING	-000.57

LOG DEPTH	0080.00
TRUE DEPTH	0079.98
TILT	2.26 DG
BEARING	193.86 DG
NORTHING	-000.63
EASTING	-000.34

LOG DEPTH	0070.00
TRUE DEPTH	0069.99
TILT	2.05 DG
BEARING	224.79 DG
NORTHING	-000.25
EASTING	-000.25

LOG DEPTH	0060.00
TRUE DEPTH	0060.00
TILT	1.98 DG
BEARING	259.40 DG
NORTHING	+000.00


238
CALIBRATION DATA
BULK DENSITY

KPR COAL QUALITY LOG
COAL QUALITY LOG

COMPANY	
WELL	
FIELD	
COUNTY	
STATE	
LOCATION	
API SERIAL NO.	
SECTION	
TOWNSHIP	
RANGE	
PERMANENT DATUM	
ELEV.	
LOG MEASURED FROM	
DRILLING MEASURED FROM	
DATE	
RUN NO.	
DEPTH-DRILLER	
DEPTH-LOGGER	
BTM. LOG INTERVAL	
TOP LOG INTERVAL	
CASING-DRILLER	
CASING-LOGGER	
BIT SIZE	
TYPE FLUID IN HOLE	
DENSITY	
VISCOSITY	
PH	
FLUID LOSS	
SOURCE OF SAMPLE	
RM @ MEAS. TEMP.	
RMF @ MEAS. TEMP.	
RMC @ MEAS. TEMP.	
SOURCE RMF	
SOURCE RMC	
RM @ BHT	
TIME SINCE CIRC.	
MAX. REC. TEMP.	
EQUIP. NO.	
LOCATION	
RECORDED BY	
WITNESSED BY	

B.P.S. SEAM THICKNESS LOG

CALIPER	GAMMA	BED RESOLUTION DENSITY
6 in	0 API	3 g/cm³

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Tk. Telkwa 82(3)A

Gamma Ray
Neutron-Neutron

BOREHOLE TW 82D-231 (4)
CLIENT Crows Nest Resources Ltd.

AREA Telkwa, B.C.
COUNTRY Canada
DATE LOGGED 1982 07 23

DEPTH SCALE 1:100

4 OF 8 LOGS

BOREHOLE DATA REFER TO Lithology LOG

OPERATION DATA REFER TO Lithology LOG

EQUIPMENT AND RECORDING DATA

LOG	LOG TAPED	RECORD SPEED	DIRECT or REPLAY	SPEED	T.C. SECS	NORM	CAL COEFF
Gamma	Yes	9	R	9	1		1.60
N-N	Yes	9	D	9	1	0.82	
	SONDE NO.		SOURCE NO.				

REMARKS

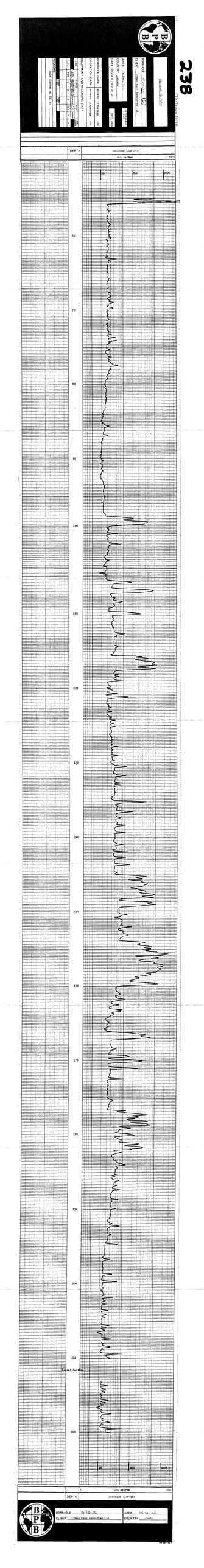
Hole blocked at 210 m.
Neutron graticule is not applicable above water level and in casing.

Gamma	DEPTH	Neutron-Neutron
0 API 150		0 SNU 500

Gamma	DEPTH	Neutron-Neutron
0 API 150		0 SNU 500

BOREHOLE TW 82D-231
CLIENT Crows Nest Resources Ltd.
AREA Telkwa, B.C.
COUNTRY Canada

MY A58452R


DEPTH
Induced Electric
Ohm metres
50
200
1000
60
70
80
90
100
110
120
130
140
150
160
170
180
190
200
210
220
Report Section
DEPTH
Induced Electric
Ohm metres
BORE-HOLE
CLIENT
AREA
COUNTRY

MULTI-CHANNEL SONIC LOG

BPB

238

Tk-Telkwa 82(3)A

BOREHOLE TW 82D -231 (6)
CLIENT Crows Nest Resources Ltd.
AREA Telkwa, B.C.
COUNTRY Canada
DATE LOGGED 1982 07 28

DEPTH SCALE 1:100

6 OF 8 LOGS

BOREHOLE DATA

PERMANENT DATUM	Ground Level			
ELEVATION OF P D				
	BPB		DRILLER	
MEASUREMENTS FROM	G.L.		G.L.	
DEPTH REACHED	210 m		321 m	
CASING SHOE	51.8m		51.8m	
BIT SIZES	1 NQ	TO T.D.	2	TO
	3	TO	4	TO
CASING SIZES	1 4"	TO 51.8	2	TO

FLUID DATA

NATURE	Super Gel-X
S G	0.98 g/cc
LEVEL	
VISCOSITY	
Rm at meas temp	30 ohm metres @ 25° C.
B H T	

OPERATION DATA

FIRST READING	211 m
LAST READING	0 m
INTERVAL LOGGED	211 m
UNIT-TRUCK No	26/V218
ENGINEER	Fisher/ Reed
WITNESS	

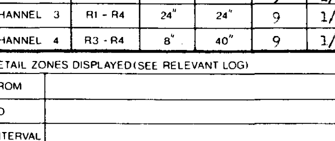
EQUIPMENT AND RECORDING DATA

SONDE No. 310 — CENTRALISERS SET TO Removed DIAMETER

	TRANSDUCER ARRANGEMENT			GENERAL LOGGING		DETAIL LOGGING		DATA RECORDED			DATA DISPLAYED		
	RECEIVER PAIR	SPACING R-R	SPACING T-R	SPEED	TC SECS	SPEED	TC SECS	FROM	TO	INTERVAL	FROM	TO	INTERVAL
CHANNEL 1	R1 - R2	8"	24"	9	1/3			210	50	160			
CHANNEL 2	R2 - R4	16"	32"	9	1/3			210	50	160	210	50	160
CHANNEL 3	R1 - R4	24"	24"	9	1/3			210	50	160			
CHANNEL 4	R3 - R4	8"	40"	9	1/3			210	50	160	210	50	160

DETAIL ZONES DISPLAYED (SEE RELEVANT LOG)

FROM		INTERVAL TOTAL
TO		
INTERVAL		



REMARKS

Hole blocked below 210 m.

CHANNEL 4	DEPTH	CHANNEL 2
INTERVAL TRANSIT TIME		INTERVAL TRANSIT TIME
140 microseconds/m 40		140 microseconds/m 40

140 microseconds/m 40	DEPTH	140 microseconds/m 40
CHANNEL 4		CHANNEL 2

BPB

BOREHOLE TW 82-D-231 AREA Telkwa, B.C.
CLIENT Crows Nest Resources Ltd. COUNTRY Canada

MC SONIC LOG

MY 126058R

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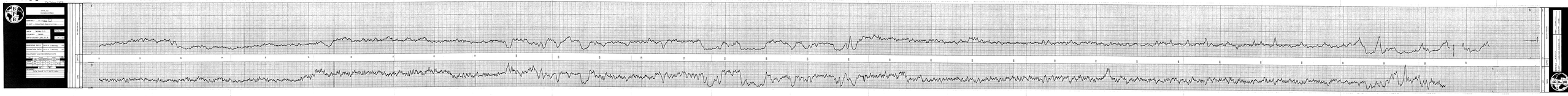
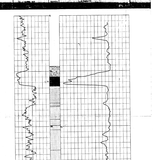
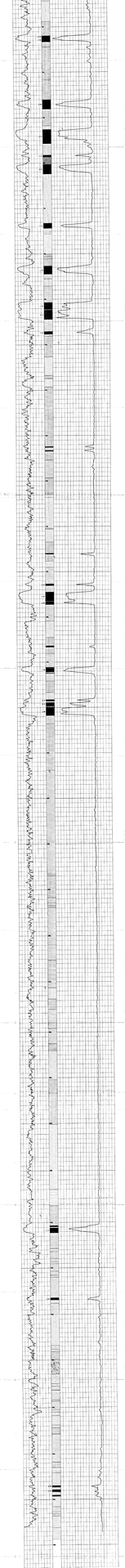
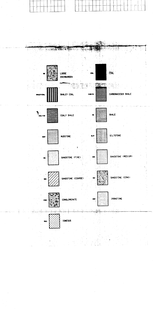
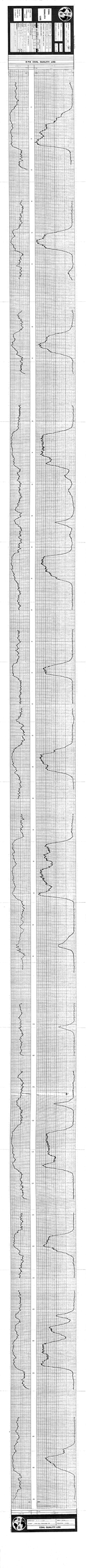






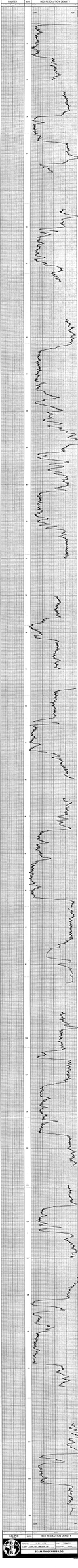




E P S COAL QUALITY LTD

S.P.R. SEAM THICKNESS LOG

CALIPER	GAMMA	BED RESOLUTION DENSITY



CALIPER	GAMMA	BED RESOLUTION DENSITY

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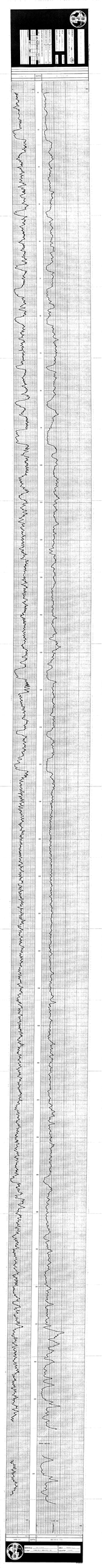
Geo Logic Inc. Ltd. Ltd. Ltd.

SEAM THICKNESS LOG

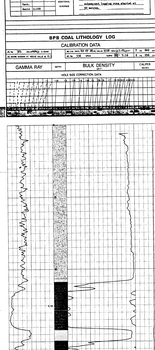


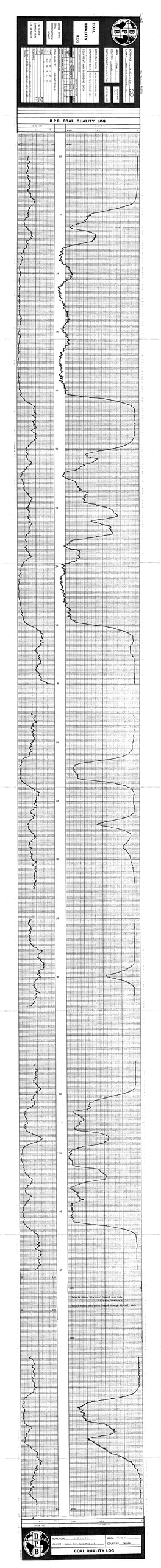
TK-Telkwa 82(3)A

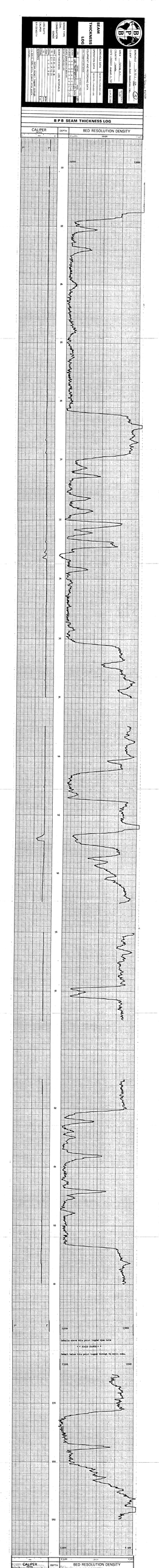
Directional survey

TW-82D-234

LOG DEPTH	0090.00	
TRUE DEPTH	0090.00	
TILT	.70	DG
BEARING	217.22	DG
NORTHING	-000.33	
EASTING	+000.00	
LOG DEPTH	0080.00	
TRUE DEPTH	0080.00	
TILT	.84	DG
BEARING	126.25	DG
NORTHING	-000.24	
EASTING	+000.08	
LOG DEPTH	0070.00	
TRUE DEPTH	0070.00	
TILT	.42	DG
BEARING	143.47	DG
NORTHING	-000.15	
EASTING	-000.03	
LOG DEPTH	0060.00	
TRUE DEPTH	0060.00	
TILT	.28	DG
BEARING	234.96	DG
NORTHING	-000.09	
EASTING	-000.08	
LOG DEPTH	0050.00	
TRUE DEPTH	0050.00	
TILT	.22	DG
BEARING	213.28	DG
NORTHING	-000.06	
EASTING	-000.04	
LOG DEPTH	0040.00	
TRUE DEPTH	0040.00	
TILT	.22	DG
BEARING	213.28	DG
NORTHING	-000.03	
EASTING	-000.02	
LOG DEPTH	0030.00	
TRUE DEPTH	0030.00	
TILT	.00	DG
BEARING	293.99	DG
NORTHING	+000.00	
EASTING	+000.00	




BPB COAL QUALITY LOG
BOREHOLE
AREA
CLIENT
COUNTRY
COAL QUALITY LOG


B P B SEAM THICKNESS LOG
CALIPER
DEPTH
BED RESOLUTION DENSITY
SEAM THICKNESS LOG
BOREHOLE SIZE
SEAM THICKNESS LOG INTERVALS
CALIPER
DEPTH
BED RESOLUTION DENSITY

T.K. Telkwa 82(3)19

Gamma
Neutron-Neutron

BOREHOLE Tx 5Q-236 (4)
CLIENT Crows Nest Resources Ltd.

AREA Telkwa, B.C.
COUNTRY Canada
DATE LOGGED 1982 08 01

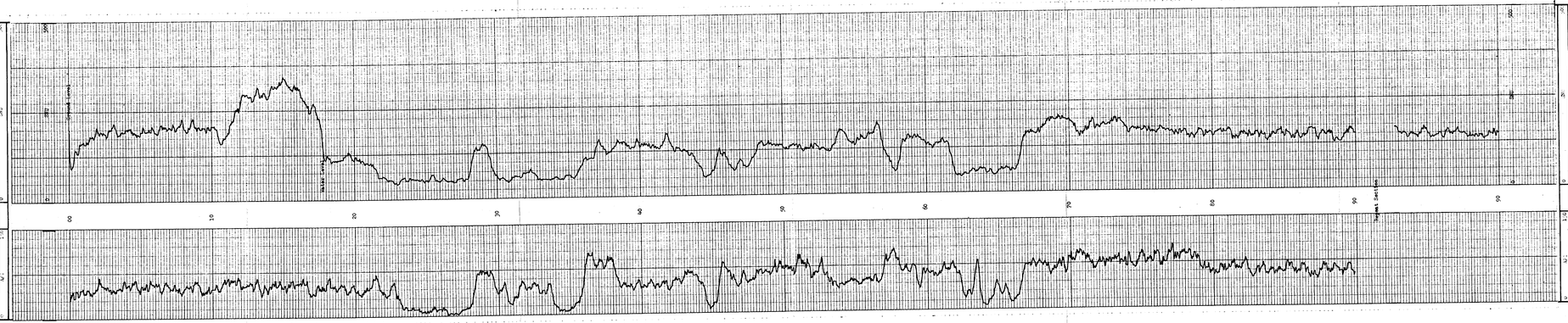
DEPTH SCALE 1:100
4 OF 5 LOGS

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

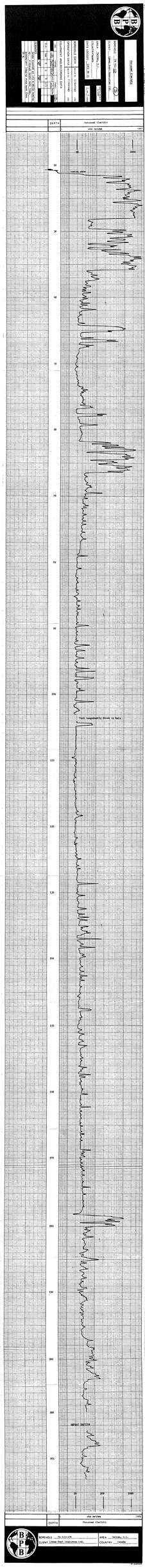
EQUIPMENT AND RECORDING DATA

LOG	TAPING			PANEL			CAL.
	LOG RECORDING LEVEL	SPEED	DEPTH	SPEED	T.C.	NORM.	
Gamma	Yes	9	8	9	1		0.00
N-N	Yes	9	8	9	1	.76	
		SPEED		NORM.			

REMARKS
Open hole logged from 90 m. only.



BOREHOLE Tx 5Q-236
CLIENT Crows Nest Resources Ltd.
AREA Telkwa, B.C.
COUNTRY Canada



Personnel Electrolyte
DEPTH
Personnel Electrolyte
ohm metres
1000
20
30
40
50
60
70
80
90
100
110
120
130
140
150
160
170
180
190
200
210
220
Casing shoe
Test temporarily blank in hole
Repeat section
20
200
2000
ohm metres
1000
DEPTH
Personnel Electrolyte
BOREHOLE 79-FIGH-2M
CLIENT Cinna Fast Resources Ltd.
AREA Nelson, B.C.
COUNTRY Canada

MULTI-CHANNEL SONIC LOG

BOREHOLE: ZK-20-83 (6)
CLIENT: Crows Nest Resources Ltd.
AREA: Elkview, B.C.
COUNTRY: Canada
DATE LOGGED: 1983 08 03
RUN No.: ONE
DEPTH DRILLER: 111.00
DEPTH LOGGER: 111.00
BOREHOLE DATA
DEPTH CONTROL: Ground Level
CASING SIZE: 1 — 2 — 3 — 4 — 5 — 6 — 7 — 8 — 9 — 10
CASING DEPTH: 1 — 2 — 3 — 4 — 5 — 6 — 7 — 8 — 9 — 10
FLUID DATA
FLUID LEVEL: Dry
SOURCE: Open hole
TYPE: Water
DENSITY: 1.0 gm/cm³
VISCOSITY: 1.0 centipoise
OPERATION DATA
RECORDED BY: S.Gerrard
WITNESS: P.Bryant/Hand
ENGINEER/TECHNICIAN: Cameron/Mackie

EQUIPMENT AND RECORDING DATA

SONDE No. 310 — CENTRALISERS SET TO 10 cm DIAMETER

	TRANSDUCER ARRANGEMENT			GENERAL LOGGING		DETAIL LOGGING		DATA RECORDED			DATA DISPLAYED		
	RECEIVER PAIR	SPACING R-R	SPACING T-R	SPEED	TC SECS	SPEED	TC SECS	FROM	TO	INTERVAL	FROM	TO	INTERVAL
CHANNEL 1	R1 - R2	8"	24"	7	1/3			105	35	7½			
CHANNEL 2	R2 - R4	16"	32"	9	1/3			90	35	7½	90	15	7½
CHANNEL 3	R1 - R4	24"	40"	9	1/3			90	35	7½			
CHANNEL 4	R3 - R4	8"	40"	9	1/3			90	35	7½	90	35	7½

DETAIL ZONES DISPLAYED SEE RELEVANT LOG

FROM										INTERVAL TOTAL
TO										
INTERVAL										

TOP OF SONDE — R1 R2 R3 R4 — 24" 8" 8" 8"

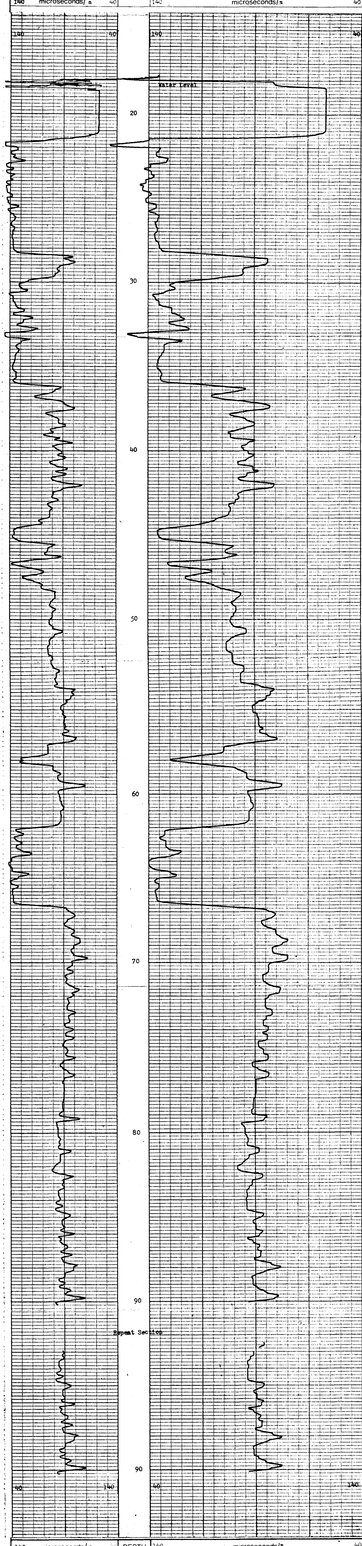
REMARKS

Open hole logged to a depth of 90m. only.

CHANNEL 4 — INTERVAL TRANSIT TIME — microseconds/ft — 140 40

DEPTH

CHANNEL 2 — INTERVAL TRANSIT TIME — microseconds/ft — 140 40



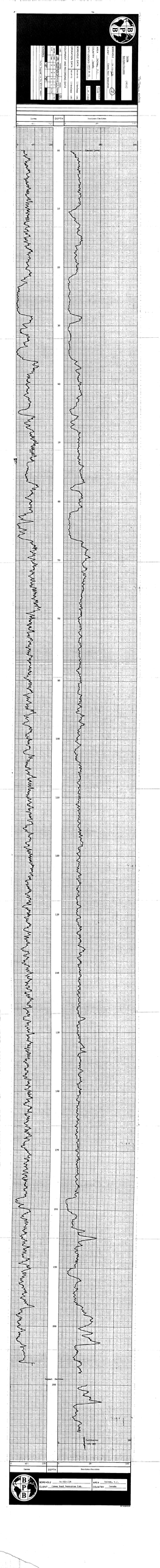
140 microseconds/ft 40 — CHANNEL

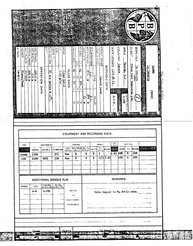
DEPTH

140 microseconds/ft 40 — CHANNEL

BOREHOLE ZK-20-83 — AREA Elkview, BC
CLIENT Crows Nest Resources Ltd. — COUNTRY Canada

MC SONIC LOG


Gamma Ray (API)
DEPTH
Resistivity (ohm-m)
Gamma Ray (API)
Resistivity (ohm-m)
Normal (16")
Deepest
Shallowest
Bottom Perforation
Top Perforation
WELL
FIELD
COUNTY
PROVINCE
COUNTRY
Canada



EQUIPMENT AND RECORDING DATA

RUN NO.	DATE	DEPTH DRILLER	DEPTH LOGGER	BTM LOG INTERVAL	TOP LOG INTERVAL	CASING DRILLER	CASING LOGGER	BIT SIZE	TYPE FLUID IN HOLE	DENS	VISC	PH	FLUID LOSS	SOURCE OF SAMPLE	RM @ MEAS TEMP	RMF @ MEAS TEMP	RMC @ MEAS TEMP	SOURCE RMF	SOURCE RMC	RM @ BHT	TIME CIRC	TIME LOGGER ON BOTTOM	MAX REC TEMP	EQUIP NO LOCATION	RECORDED BY	WITNESSED BY
ONE	6-8-82	1000	1000	1000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

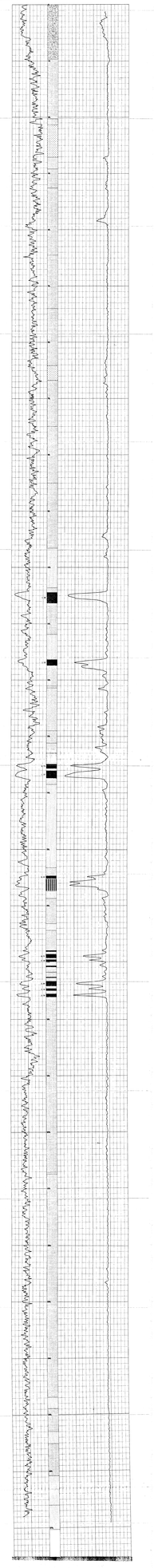
RUN NO.	BIT NO.	SIZE	MFR	TYPE	SERIAL NO.	JETS OR TFA	DEPTH OUT	FEET DRILLED	HOURS
ONE	1	8 3/4	STC	F-3	0	0	1000	1000	0

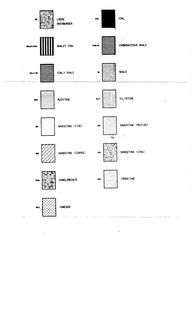
ADDITIONAL SERVICES RUN

RUN NO.	SERVICE ORDER NO.	TYPE LOG
ONE	0	0

REMARKS

Matrix Density = 2.71 GM/CC Limestone





BPB

Gamma
LS Density
(ROCS)

Tk-Telkwa 8a(3)A

BOREHOLE DATA

BOREHOLE	TW 82D-235 (2)
CLIENT	Crows Nest Resources Ltd.
AREA	Telkwa, B.C.
COUNTRY	Canada
DATE LOGGED	1982 08 03
DEPTH SCALE	1:100
	1 of 4 LOGS
PERMANENT DATUM	Ground Level
ELEVATION OF P D	
MEASUREMENTS FROM	G.L. (BPB) / G.L. (DRILLER)
DEPTH REACHED	270. m (BPB) / 270 m (DRILLER)
CASING SHOE	11 m
BIT SIZES	1: NQ TO 270; 2: TO
	3: TO; 4: TO
CASING SIZES	1: 4¾ TO 11; 2: TO

FLUID DATA

NATURE	Super Gel-X
S G	0.99 g/cc
LEVEL	
VISCOSITY	
Rm at meas temp	25 ohm metres @ 12°C
B H T	

OPERATION DATA

FIRST READING	268.0 m
LAST READING	0.0 m
INTERVAL LOGGED	268.0 m
UNIT-TRUCK No	21/4218
ENGINEER	Fisher/Reed
WITNESS	Langill

EQUIPMENT AND RECORDING DATA

LOG	EQUIPMENT			TAPING			PANEL			CAL COEFF	DEPTHS		
	SONDE	SOURCE	CALIBRATOR	LOG TAPED	RECORD SPEED	DIRECT or REPLAY	SPEED	T C SECS	NORM		FROM	TO	INTERVAL
Gamma	1198		371	Yes	9	R	9	1		1.55	268	0	268
LSD	1198	5321	536	Yes	9	R	9	1/3	7.03		269	1	268

ADDITIONAL SONDES RUN

SONDE	LOG	GENERAL SCALE LOG	DETAIL SCALE LOG
	N-S	1:100	

REFER TO ADDITIONAL HEADINGS

REMARKS

Hole logged in NQ drill rods.

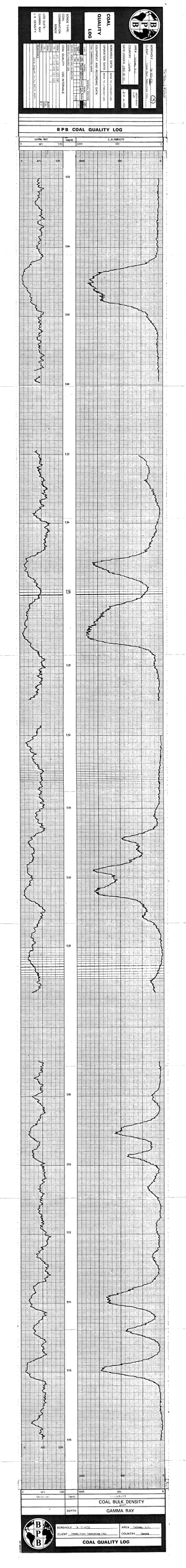
Gamma	DEPTH	LS Density
0 API 120		3000 SDU 0

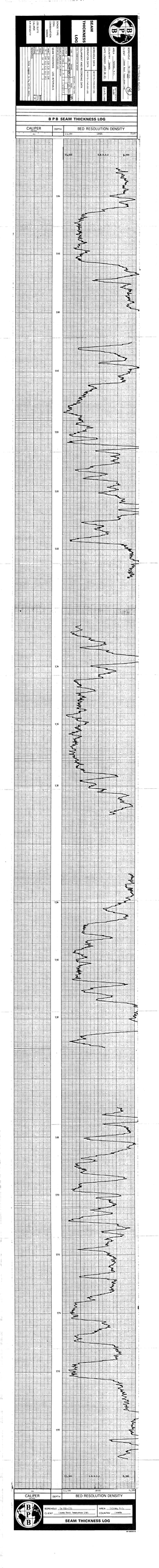
Gamma	DEPTH	LS Density
0 API 120		3000 SDU 0

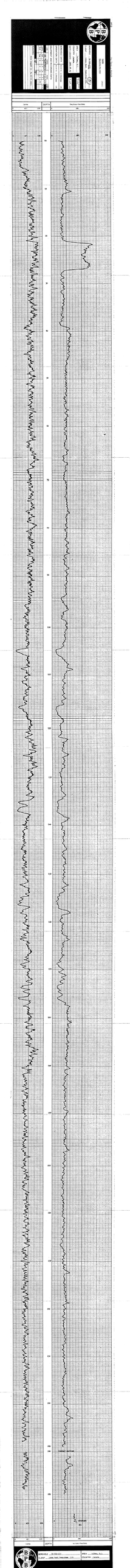
BPB

BOREHOLE TW 82D-235
CLIENT Crows Nest Resources Ltd.
AREA Telkwa, B.C.
COUNTRY Canada

MY 95160 R


COAL QUALITY LOG
BPB COAL QUALITY LOG
GAMMA RAY
COAL BULK DENSITY
DEPTH
CLIENT
BOREHOLE
COAL QUALITY LOG


SEAM THICKNESS LOG
B P B
BPB INSTRUMENTS
SEAM THICKNESS LOG
8 P B SEAM THICKNESS LOG
CALIPER
DEPTH
BED RESOLUTION DENSITY
0 IN/MM
0 G/CM
3.000
0 G/CM
BOREHOLE
AREA
COUNTY
COUNTRY
SEAM THICKNESS LOG



238

Directional survey

TK-Telkwa 82(3)A

TW-82D-235

LOG DEPTH	0170.00	
TRUE DEPTH	0170.00	
TILT	.56	DG
BEARING	350.00	DG
NORTHING	+001.43	
EASTING	+000.94	

LOG DEPTH	0160.00	
TRUE DEPTH	0160.00	
TILT	1.13	DG
BEARING	33.33	DG
NORTHING	+001.33	
EASTING	+000.96	

LOG DEPTH	0150.00	
TRUE DEPTH	0150.00	
TILT	.92	DG
BEARING	32.41	DG
NORTHING	+001.17	
EASTING	+000.85	

LOG DEPTH	0140.00	
TRUE DEPTH	0140.00	
TILT	.72	DG
BEARING	48.85	DG
NORTHING	+001.03	
EASTING	+000.76	

LOG DEPTH	0130.00	
TRUE DEPTH	0130.00	
TILT	.78	DG
BEARING	34.34	DG
NORTHING	+000.95	
EASTING	+000.67	

LOG DEPTH	0120.00	
TRUE DEPTH	0120.00	
TILT	.92	DG
BEARING	42.55	DG
NORTHING	+000.84	
EASTING	+000.59	

LOG DEPTH	0110.00	
TRUE DEPTH	0110.00	
TILT	1.06	DG
BEARING	45.78	DG
NORTHING	+000.72	
EASTING	+000.48	

LOG DEPTH	0100.00	
TRUE DEPTH	0100.00	
TILT	.98	DG
BEARING	36.50	DG
NORTHING	+000.59	
EASTING	+000.35	

LOG DEPTH	0090.00	
TRUE DEPTH	0090.00	
TILT	.84	DG
BEARING	53.44	DG
NORTHING	+000.45	
EASTING	+000.25	

LOG DEPTH	0080.00	
TRUE DEPTH	0080.00	
TILT	.70	DG
BEARING	27.56	DG
NORTHING	+000.36	
EASTING	+000.13	

LOG DEPTH	0070.00	
TRUE DEPTH	0070.00	
TILT	.78	DG
BEARING	15.57	DG
NORTHING	+000.25	
EASTING	+000.07	

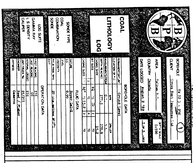
LOG DEPTH	0060.00	
TRUE DEPTH	0060.00	
TILT	.60	DG
BEARING	339.83	DG
NORTHING	+000.12	
EASTING	+000.03	

LOG DEPTH	0050.00	
TRUE DEPTH	0050.00	
TILT	.46	DG
BEARING	337.68	DG
NORTHING	+000.02	
EASTING	+000.07	

LOG DEPTH	0040.00	
TRUE DEPTH	0040.00	
TILT	.46	DG
BEARING	100.49	DG
NORTHING	-000.04	
EASTING	+000.10	

LOG DEPTH	0030.00	
TRUE DEPTH	0030.00	
TILT	.24	DG
BEARING	140.19	DG
NORTHING	-000.03	
EASTING	+000.02	

LOG DEPTH	0020.00	
TRUE DEPTH	0020.00	
TILT	.28	DG
BEARING	106.57	DG
NORTHING	+000.00	
EASTING	+000.00	



EQUIPMENT AND RECORDING DATA

COAL LITHOLOGY SONDE												
TOOL	SERIAL NO.	DIAMETER (mm)	CABLE TYPE	CABLE LENGTH (m)	CABLE DEAD LENGTH (m)	CABLE WEIGHT (kg/m)	CALIBRATION DATE					
GAMMA RAY	2	35	7	0	0	0	0.3	7/2/84	20	7/2/84	Yes	
BULK DENSITY	2	35	7	0	0	0	0.3	7/2/84	20	7/2/84	Yes	
CALIPER	2	35	7	0	0	0	0.3	7/2/84	20	7/2/84	Yes	

TOOL TYPE (CONTACT OR CENTRALISED)			
DATA RECORDED ON DISKETTE (YES/NO)			
TIME CONSTANT		CALIBRATION TOOL	
GAIN			
OFFSET			

ADDITIONAL SONDES RUN

SONDE	CABLE LENGTH (m)		
	FROM	TO	
[illegible]	0.0	1.5/100	
[illegible]	0.0	1.5/100	
[illegible]	0.0	1.5/100	
[illegible]	NIL		

RUN TO ADDITIONAL SONDES	

REMARKS

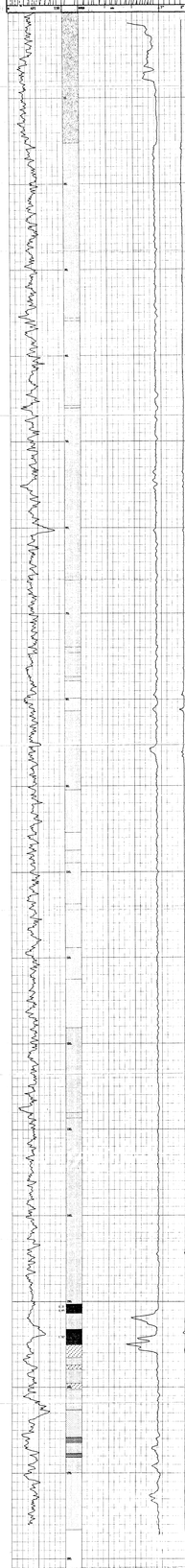
BPB COAL LITHOLOGY LOG

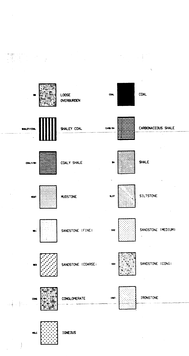
CALIBRATION DATA

[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]

GAMMA RAY	UNITS	BULK DENSITY	CALIPER
	API	g/cc	mm

HOLE SIZE CORRECTION DATA





TK-Telkwa 82(3)A

BOREHOLE TW 82 D - 236 (2)
CLIENT Crows Nest Resources Ltd
AREA Telkwa B.C.
COUNTRY Canada
DATE LOGGED August 2 '82
DEPTH SCALE 1:20
2 OF 5 LOGS

COAL QUALITY LOG

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

EQUIPMENT AND RECORDING DATA

COAL COMBINATION SONDE

LOG	TAPING		PANEL		COAL CORE
	LOG TAPED	RECORD SPEED	SPEED	SIDEWALL POSITION	
GAMMA RAY	Y	2	R	2	
L.S. DENSITY	Y	2	R	2	1.6
SOURCE SONDE AND CALIBRATION					

REFER TO LITHOLOGY LOG

COAL QUALITY LOG INTERVALS

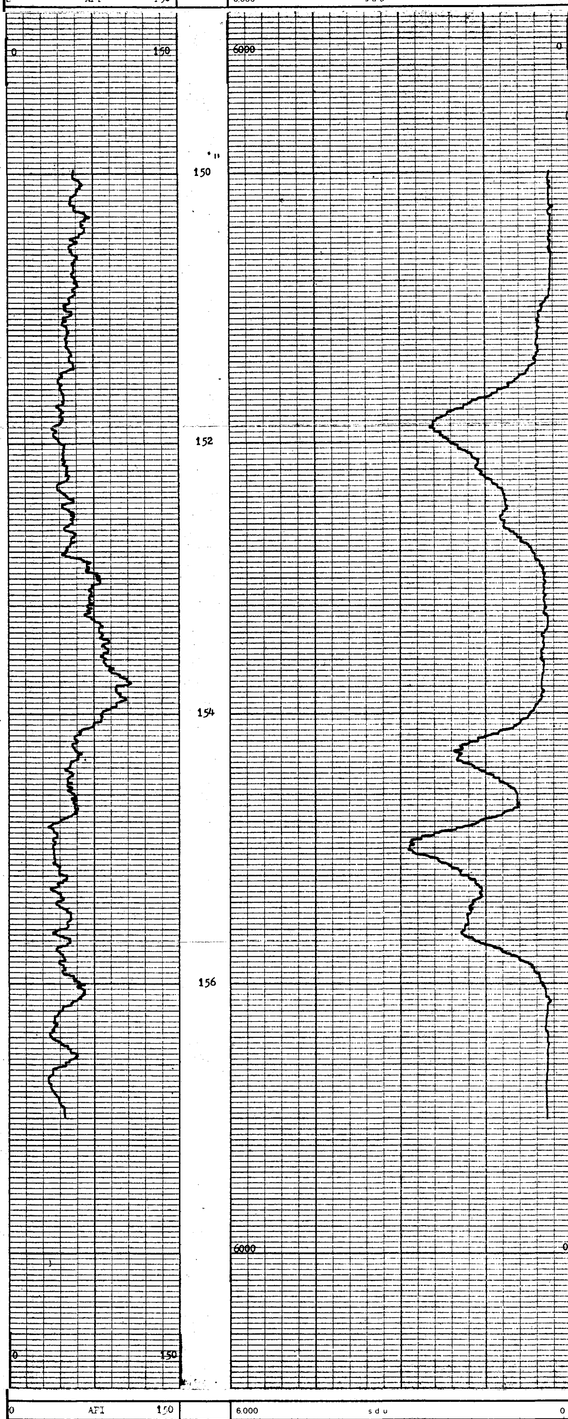
FROM	152		
TO	150		
INTERVAL	2		
FROM			INTER VAL TOTAL
TO			
INTERVAL			?

REMARKS

SONDE TYPE: COAL COMBINATION SONDE

LOG SUITE: GAMMA RAY L.S. DENSITY

BPB COAL QUALITY LOG



BOREHOLE TW 82 D - 236
CLIENT Crows Nest Resources Ltd
AREA Telkwa B.C.
COUNTRY Canada

COAL QUALITY LOG

MT 88002 R

TK-Telkwa 82(3)A

SEAM THICKNESS LOG

BOREHOLE TW 82 D - 236 (3)

CLIENT Crows Nest Resources Ltd.

AREA Telkwa B.C.

COUNTRY Canada

DATE LOGGED August 2'82

DEPTH SCALE 1:20

3 OF 5 LOGS

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	LOG TAPED	RECORD SPEED	DIRECT OR REPLAY	SPEED	TC SECS	NORM	CAL COEFF
	TAPING			SIDEWALL POSITION	PANEL		
CALIPER	Y	2	R	2	1/3		
B R DENSITY	Y	2	R	2	1/3	7.1	

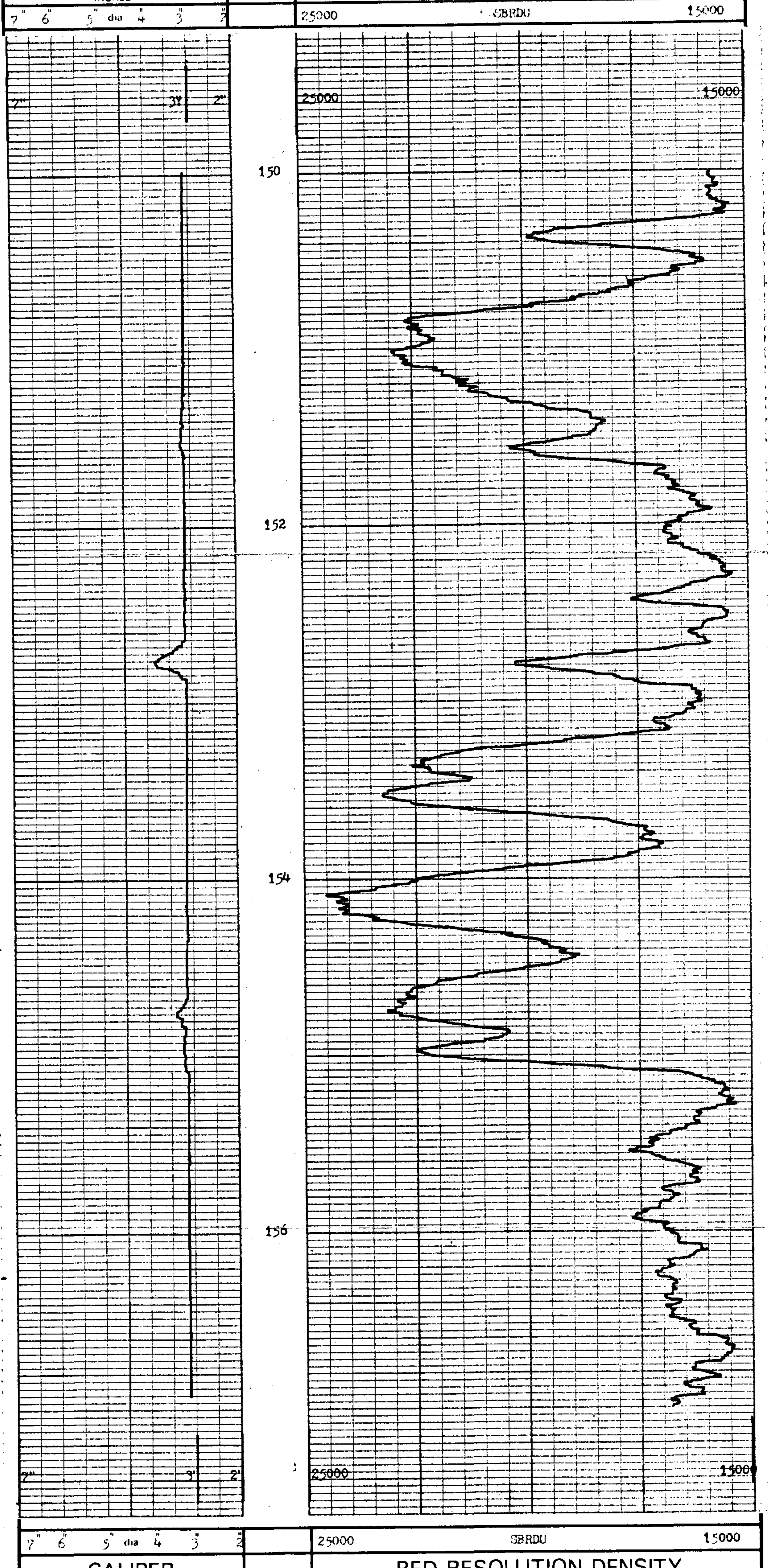
SOURCE SONDE AND CALIBRATION
REFER TO LITHOLOGY LOG

SEAM THICKNESS LOG INTERVALS

FROM	157		
TO	150		
INTERVAL	7		
FROM			
TO			
INTERVAL		INTERVAL TOTAL	7

REMARKS

B P B SEAM THICKNESS LOG



BOREHOLE TW 82 D - 236

CLIENT Crows Nest Resources Ltd.

AREA Telkwa B.C.

COUNTRY Canada

SEAM THICKNESS LOG

MY 88002 R

T.K. Telkwa 82(?)A

BPB

GAMMA RAY & NEUTRON-NEUTRON

BOREHOLE TW 82 D - 236 (4)
CLIENT Crows Nest Resources Ltd
AREA Telkwa B.C.
COUNTRY Canada
DATE LOGGED August 2 '82
DEPTH SCALE 1:100
4 of 5 LOGS

BOREHOLE DATA REFER TO Lithology LOG

OPERATION DATA REFER TO Lithology LOG

EQUIPMENT AND RECORDING DATA

LOG	TAPING TAPED	LOG SPEED	RECORDING DIRECTION/REPLAY	SPEED	PANEL T.C. SECS	NORM	CAL COEFF
N-N	Y	9	D	9	1	.76	
Gamma	Y	9	R	9	1		1.6

SOURCE NO. 216 SONDE NO. 2479

REMARKS

GAMMA RAY	DEPTH	NEUTRON-NEUTRON
0 API 150		0 SNU 500

GAMMA RAY	DEPTH	NEUTRON-NEUTRON
0 API 150		0 SNU 500

BPB

BOREHOLE TW 82 D - 236
CLIENT Crows Nest Resources Ltd
AREA Telkwa B.C.
COUNTRY Canada

MY A584528

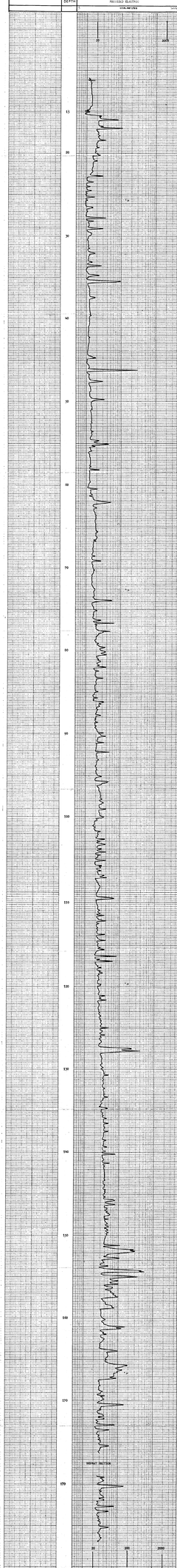
Tx Talisman 83/09

BP

PROCESSED ELECTRIC LOG

BOREHOLE: TX 42 D - 236
CLIENT: Crows Nest Resources Ltd.
AREA: Taylor B.C.
COUNTRY: Canada

BOREHOLE	TX 42 D - 236
CLIENT	Crows Nest Resources Ltd.
AREA	Taylor B.C.
COUNTRY	Canada
DATE	2-Nov-83
DRILLING CONTRACTOR	Alberta Energy Co.
DRILLING MUD	Water
MAX. DEVIATION	1.5°
DEPTH OF DRILLER	176 m
DEPTH OF LOGGER	176 m
BOTTOM LOGGED INTERVAL	176 m
TOP LOGGED INTERVAL	0 m
CASING DIAMETER	114 mm
CASING WEIGHT	14.3 kg/m
CASING DEPTH	0 m
BIT SIZE	152 mm
MAX. TEMPERATURE	12 °C
RECORDED BY	Schlumberger
WITNESSED BY	Mr. Martin



DEPTH
RECORDED ELECTRIC
HORIZONTAL SCALE
1
5000
BOREHOLE TX 42 D - 236
CLIENT Crows Nest Resources Ltd.
AREA Taylor B.C.
COUNTRY Canada

BPB

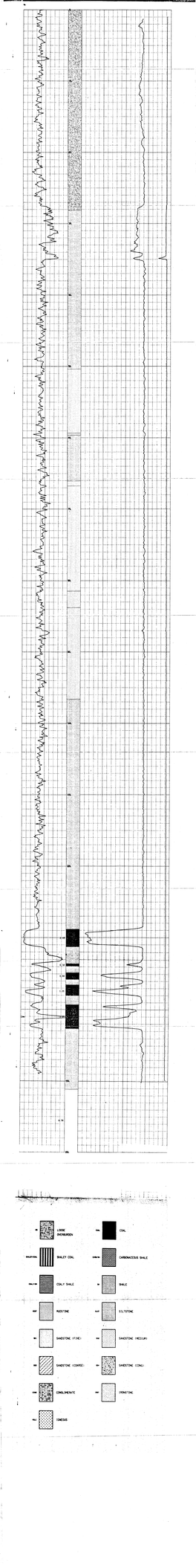
COAL LITHOLOGY LOG

EQUIPMENT AND RECORDING DATA

CALIBRATION DATA

GAMMA RAY

BULK DENSITY



LOOSE OVERBURDEN

COAL

BANDED BAILEY COAL

CARBONACEOUS SHALE

COALY SHALE

SHALE

MUDSTONE

SILTSTONE

SANDSTONE (FINE)

SANDSTONE (MEDIUM)

SANDSTONE (COARSE)

SANDSTONE (CONG)

CONGLOMERATE

IRONSTONE

IGNEOUS

Tk-Telkwa 6000A

BOREHOLE Y-6000-2??
CLIENT Crows Nest Resources Ltd.
AREA Telkwa
COUNTRY Canada
DATE LOGGED 3/Aug/82
DEPTH SCALE 1:20
2 OF 3 LOGS

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

LOG				SIDEWALL POSITION	
GAMMA RAY	LOG	TAPING		PANEL	
		PROCESSING		SPEED	
L.S. DENSITY	Y	2/3		SIZE	
		2/3			
		2/3			
		2/3			

SOURCE SONDE AND CALIBRATION
REFER TO LITHOLOGY LOG

COAL QUALITY LOG INTERVALS

FROM	1.6/6.0		
TO	1.2/6.0		
INTERVAL	1.2/6.0		
FROM			
TO			
INTERVAL			

REMARKS

		INTERVAL 100%

BPB COAL QUALITY LOG

COAL BULK DENSITY g/cm³

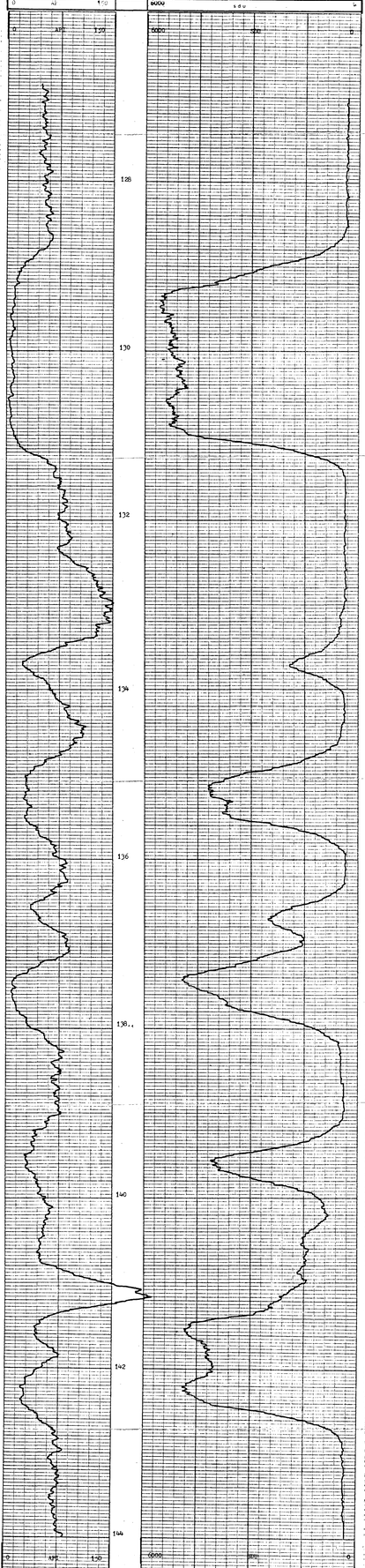
HOLE SIZE CORRECTION DATA

2" 4" 6" 8"

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

GAMMA RAY — LONG SPACED DENSITY

0 API 150 — 6000 kg/m³ 0



0 API 150 — 6000 kg/m³ 0

GAMMA RAY — LONG SPACED DENSITY

COAL BULK DENSITY g/cm³

BOREHOLE Y-6000-2??
CLIENT Crows Nest Resources Ltd.
AREA Telkwa
COUNTRY Canada

COAL QUALITY LOG

Tk-Telkwa 82/03A

BOREHOLE TWR22-237 (3)

CLIENT Crows Nest Resources Ltd.

AREA Telkwa

COUNTRY Canada

DATE LOGGED 3/Aug/82

DEPTH SCALE 1:200

2 or 3 LOGS

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	TAPE	SPEED	SPEED	SPEED	SPEED
CALIPER	1	2	3	4	5
B.R.DENSITY	1	2	3	4	5
SOURCE SONDE AND CALIBRATION					
REFER TO LITHOLOGY LOG					

SPECIAL POSITION

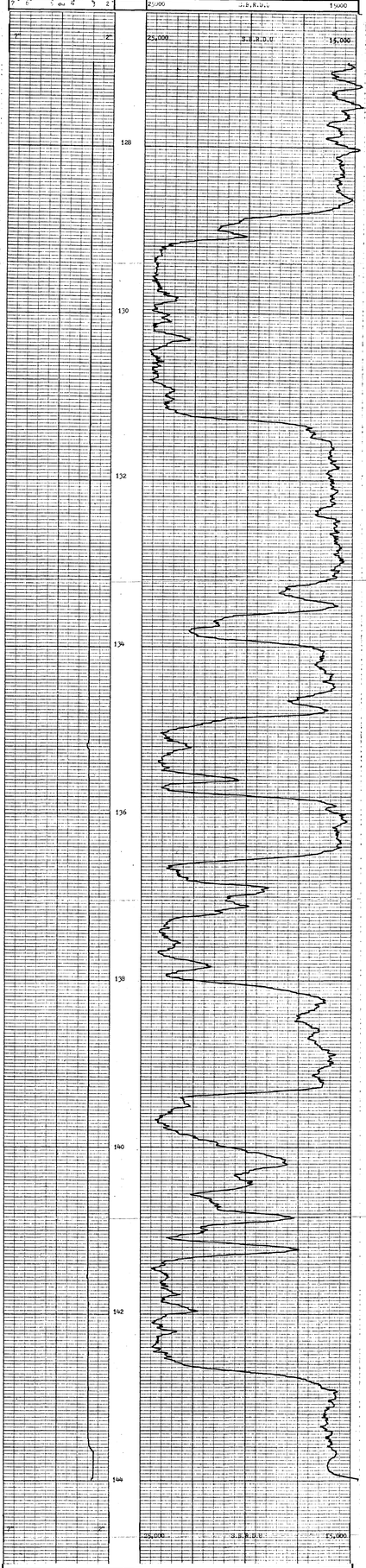
LOG	TAPE	SPEED	SPEED	SPEED	SPEED
CALIPER	1	2	3	4	5
B.R.DENSITY	1	2	3	4	5

SOURCE SONDE AND CALIBRATION

REFER TO LITHOLOGY LOG

SEAM THICKNESS LOG INTERVALS

FROM	154.00m	
TO	127.0m	
INTERVAL	12.0m	
FROM		
TO		
INTERVAL		
REMARKS		



BOREHOLE TWR22-237

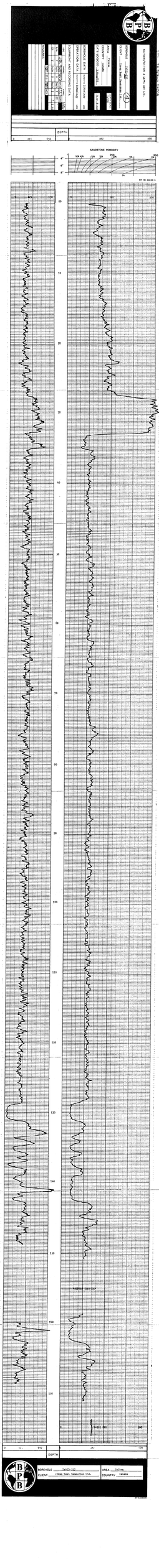
CLIENT Crows Nest Resources Ltd.

AREA Telkwa

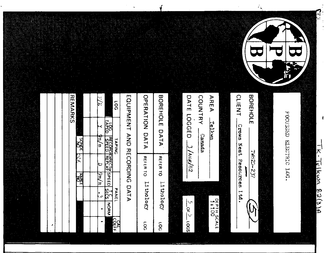
COUNTRY Canada

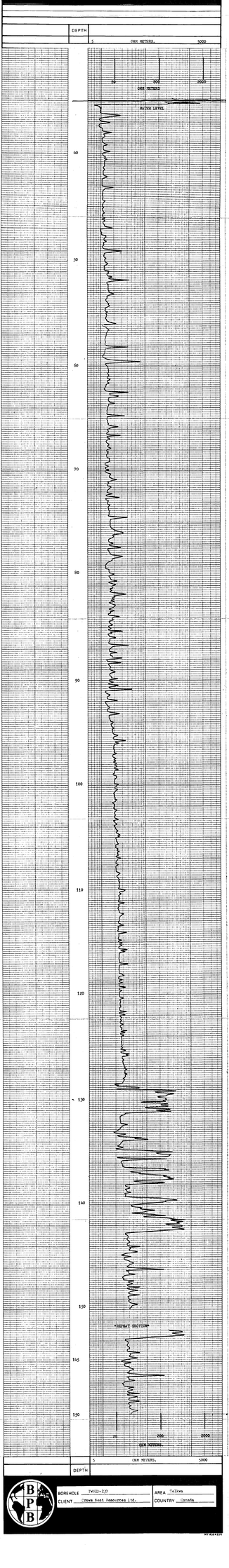
SEAM THICKNESS LOG

MY 68003 R



BOREHOLE
CLIENT
AREA
COUNTRY
DATE
DEPTH
SANDSTONE POROSITY
DEPTH
BOREHOLE
CLIENT
AREA
COUNTRY
DATE





DEPTH
.5
OHM METERS
5000
10
100
1000
2000

BPB

BOREHOLE TW2-229
CLIENT Crowe Heat Resources Ltd.
AREA Tetkwa
COUNTRY Canada

BPB

COAL LITHOLOGY LOG

BOREHOLE	TKB2-23B ①
CLIENT	Crows Nest Resources Ltd.
AREA	Telkwa
COUNTRY	Canada
DATE LOGGED	05/Aug/82
DEPTH SCALE	1:100
	1 of 6 LOGS

Telkwa 82 (3)A

SONDE TYPE: COAL COMBINATION SONDE

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

BOREHOLE DATA

PERMANENT DATUM	Ground Level	
ELEVATION OF P.D.		
MEASUREMENTS FROM	BPB G.L	DRILLER G.L
DEPTH REACHED	189.0m	191.0m
CASING SHOE		
BIT SIZES	1 NQ TO TD	2 TO
	3 TO	4 TO
CASING SIZES	1 TO	2 TO

FLUID DATA

NATURE	Super Gel-X/Water
SG	No sample available
LEVEL	23.0m
VISCOSITY	
Rm at meas temp	No sample available
BHT	

OPERATION DATA

FIRST READING	180.0m
LAST READING	00.0m
INTERVAL LOGGED	180.0m
UNIT-TRUCK No	U21/V218
ENGINEER	JDR & WACGC
WITNESS	Larfll

EQUIPMENT AND RECORDING DATA

COAL COMBINATION SONDE

LOG	EQUIPMENT: SONDE	SOURCE	CALIBRATOR	TAPING: LOG TAPED	RECORD SPEED	DIRECT or REPLAY	PANEL: SPEED	TC SECS	NORM	CAL COEFF	DEPTHS: FROM	TO	INTERVAL	SEAM LOG RUN
	119B	5821												
GAMMA RAY			371	Y	9m/m	D	9m/m	1	•	1:63	180	00	180	
L.S. DENSITY	SIDEWALL POSITION		0336	Y	9m/m	D	9m/m	.3	7.08	•	180	00	180	
CALIPER			2"..7"	Y	9m/m	D	9m/m	.3	•	•	180	00	180	

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

FROM	127.0m	INTERVAL TOTAL
TO	121.0m	
INTERVAL	6.0m	6.0m

ADDITIONAL SONDES RUN

SONDE	LOG	GENERAL SCALE LOG	DETAIL SCALE LOG
206	F/E	1:100	
216	N/N	1:100	
310	M.C.S	1:100	

REFER TO ADDITIONAL HEADINGS

REMARKS

Hole was logged from 180.0m due to unstable borehole conditions.

Verticality tool not run due to unstable borehole conditions.

BPB COAL LITHOLOGY LOG

CALIBRATION DATA

JIG No 337 VALUE 494(a) 2 DIAM	JIG CAL DATE 28/Jul/82 JIG VALUE 5558 SDU(a) g/cm³	2" ms 297 cps
JIG MARK SHOWN AT ABOVE VALUE -/10	JIG No 0336 SPAN 6000 NORM SDU-CPS 7.08	7" ms 828 cps

GAMMA RAY	DEPTH	BULK DENSITY g/cm³	CALIPER INCHES

HOLE SIZE CORRECTION DATA

OB	LOOSE OVERBURDEN	COAL	COAL
SHALEY/COAL	SHALEY COAL	CARB/SH	CARBONACEOUS SHALE
COALY/SH	COALY SHALE	SH	SHALE
MDST	MUDSTONE	SLST	SILTSTONE
SS1	SANDSTONE (FINE)	SS2	SANDSTONE (MEDIUM)
SS3	SANDSTONE (COARSE)	SS4	SANDSTONE (CONG)
CONG	CONGLOMERATE	IRST	IRONSTONE
VOLC	IGNEOUS		

TK-Telkwa 82(31)A

BOREHOLE TW82-2(8) (2)

CLIENT Crows Nest Resources Ltd.

AREA Telkwa

COUNTRY Canada

DATE LOGGED 05/Aug/82

DEPTH SCALE 1:200

1 OF 6 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			PANEL		CAL COEFF
	LOG TAPED	RECORD SPEED	DIRECT or REPLAY	SPEED	TC SECS	NORM
GAMMA RAY	Y	2m/m	R	2m/m	2	1
LS DENSITY	Y	2m/m	R	2m/m	.2	1.00

SOURCE. SONDE AND CALIBRATION

REFER TO LITHOLOGY LOG

SONDE TYPE: COAL COMBINATION SONDE

LOG SUITE: GAMMA RAY L.S. DENSITY

COAL QUALITY LOG INTERVALS

		INTERVAL TOTAL
FROM	122.0m	
TO	124.0m	
INTERVAL	2.0m	= 2
FROM		
TO		
INTERVAL		

REMARKS

BPB COAL QUALITY LOG

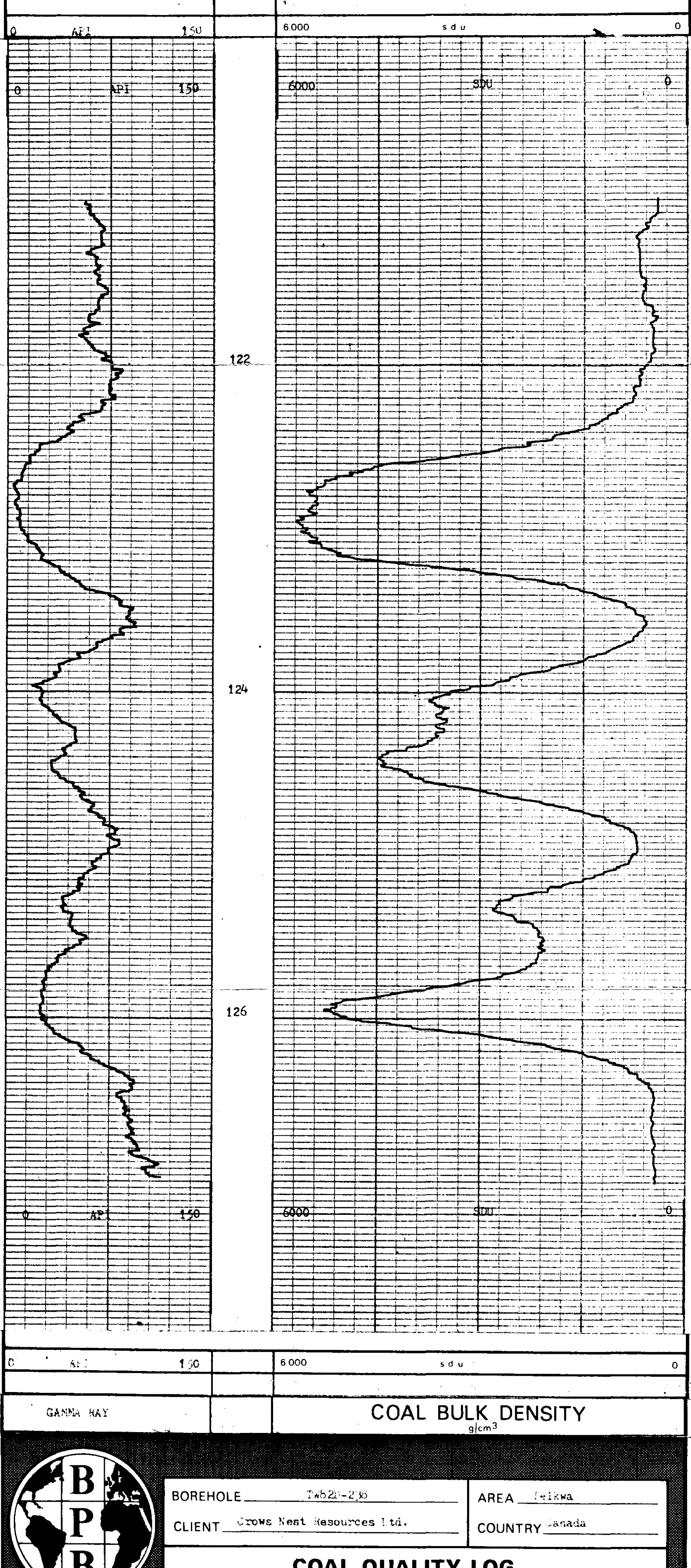
GAMMA RAY | | COAL BULK DENSITY g/cm³

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"

0 API 150 | | 6.000 s d u 0



0 API 150 | | 6 000 s d u 0

GAMMA RAY | | COAL BULK DENSITY g/cm³

BOREHOLE TW82-2(8) | AREA Telkwa

CLIENT Crows Nest Resources Ltd. | COUNTRY Canada

COAL QUALITY LOG

BOREHOLE TW82D-238 (3)

CLIENT Crows Nest Resources Ltd.

AREA Telkwa

COUNTRY Canada

DATE LOGGED 07/Aug/82

DEPTH SCALE 1:20

__ OF __ 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	
	LOG TAPED	RECORD SPEED	DIRECT OR REPLAY	SPEED	TC SECS	NORM	CAL COEFF
CALIPER	Y	2m/m	R	2m/m	1	"	"
B R DENSITY	Y	2m/m	R	2m/m	.3	7.10	"

SOURCE SONDE AND CALIBRATION

REFER TO LITHOLOGY LOG

SEAM THICKNESS

THICKNESS LOG

SONDE TYPE:
COAL
COMBINATION
SONDE

LOG SUITE:
CALIPER
B.R. DENSITY

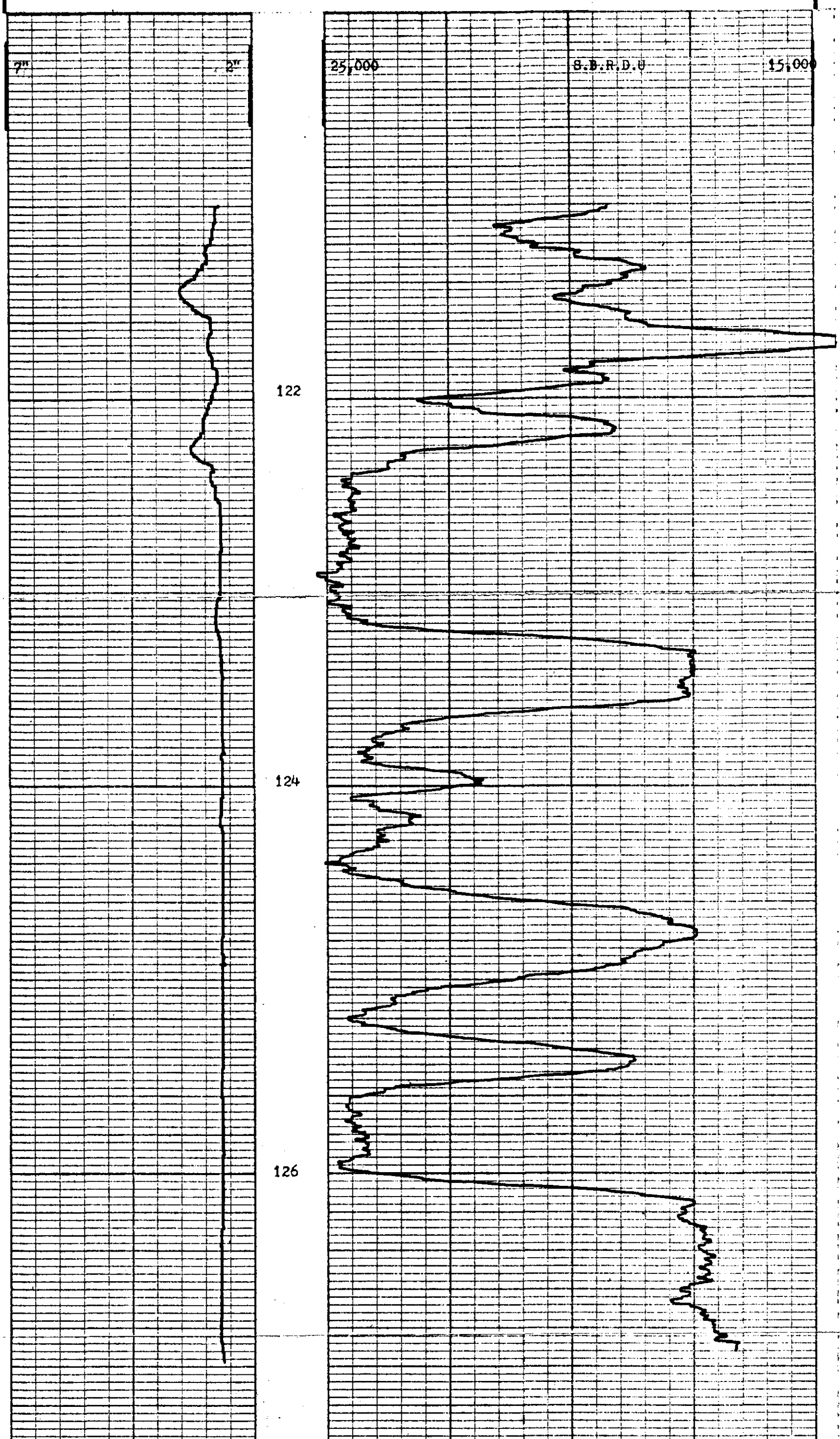
SEAM THICKNESS LOG INTERVALS

FROM	127.0m	
TO	121.0m	
INTERVAL	6.0m	
FROM		INTERVAL
TO		TOTAL
INTERVAL		± 6m

REMARKS

B P B SEAM THICKNESS LOG

CALIPER INCHES	DEPTH	BED RESOLUTION DENSITY
7" 6" 5" dia 4 3" 2"		25,000 S.B.R.D.U 15,000



CALIPER INCHES	DEPTH	BED RESOLUTION DENSITY
7" 6" 5" dia 4 3" 2"		25,000 S.B.R.D.U 15,000

BOREHOLE TW82D-238

CLIENT Crows Nest Resources Ltd.

AREA Telkwa

COUNTRY Canada

SEAM THICKNESS LOG

MY 88002 R

Tx-Tellon 82/30

BOREHOLE [illegible]

CLIENT [illegible]

AREA Tellon

COUNTRY Canada

DATE LOGGED [illegible]

BOREHOLE DATA	Move to 1 Metre	100
OPERATION DATA	Move to 1 Metre	100

EQUIPMENT AND RECORDING DATA

LOG	TAPING	PANEL	FOOT
	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]
	[illegible]	[illegible]	

REMARKS

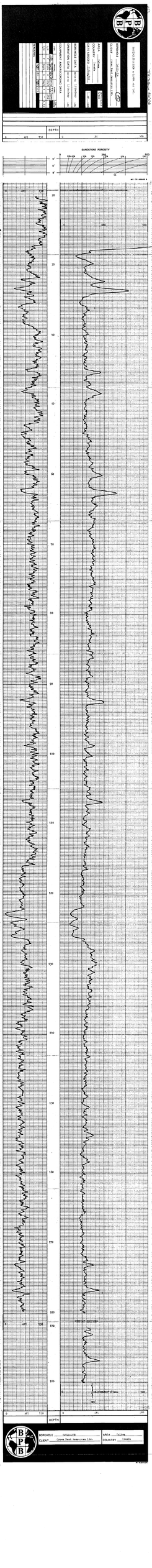
[illegible]

BOREHOLE [illegible]

CLIENT [illegible]

AREA [illegible]

COUNTRY [illegible]



BPB
INTEGRATED RESISTIVITY
GAMMA RAY
SANDSTONE POROSITY
DEPTH
SCHEDULE
CLIENT
AREA
COUNTRY

MULTI-CHANNEL SONIC LOG

BOREHOLE: [illegible]
CLIENT: Crows Nest Resources Ltd.
AREA: Telkwa
COUNTRY: Canada
DATE LOGGED: 15th Nov 82
RUN NO.: 1
DEPTH DRILLER: 1141.50m
DEPTH LOGGER: 1139.40m
BOTTOM LOGGED INTERVAL: 1139.40m
TOP LOGGED INTERVAL: 1.00m
CASING DIAMETER: 6"
CASING DEPTH: 1.00m
BIT SIZE: 5 7/8"
TYPE FLUID IN HOLE: Water
DENSITY: 1.0 g/cc
VISCOSITY: 30s
PH: 8.0
FLUID LOSS: 20cc
SOURCE OF SAMPLE: Circulation
RM @ MEAS. TEMP: 30s
RMF @ MEAS. TEMP: 30s
RMC @ MEAS. TEMP: 30s
SOURCE RMF & RMC: Assumed
RM @ BHT: 30s
TIME SINCE CIRC.: 24hrs
MAX. REC. TEMP. (DEG. F.): 50°F
EQUIP. LOCATION: Smithers
RECORDED BY: [illegible]
WITNESSED BY: [illegible]

BOREHOLE DATA

	BIT	FROM	TO
CASING SIZES	1	0	1.00m
	2	1.00m	1139.40m
	3		
	4		

OPERATION DATA

	RECEIVER PAIR	SPACING R-R	SPACING T-R
CHANNEL 1	R1 - R2	8"	24"
CHANNEL 2	R2 - R4	16"	32"
CHANNEL 3	R3 - R4	24"	24"
CHANNEL 4	R3 - R4	8"	40"

DETAIL ZONES DISPLAYED (USE RELEVANT LOG)

FROM	1.27.0m
TO	1,1.0m
INTERVAL	5.0m

INTERVAL TOTAL: ft./m.

EQUIPMENT AND RECORDING DATA

SONDE No.

CENTRALISERS SET TO DIAMETER

	TRANSDUCER ARRANGEMENT			GENERAL LOGGING		DETAL LOGGING		DATA RECORDED		DATA DISPLAYED		
	RECEIVER PAIR	SPACING R-R	SPACING T-R	SPEED	TC SECS	SPEED	TC SECS	FROM	TO	INTERVAL	FROM	TO	INTERVAL
CHANNEL 1	R1 - R2	8"	24"					1:0	yft	1/2			
CHANNEL 2	R2 - R4	16"	32"	2m/s	1.3	2m/s	1.3	150	yft	2.0			
CHANNEL 3	R3 - R4	24"	24"					150	yft	3/2			
CHANNEL 4	R3 - R4	8"	40"	2m/s	1.3	3m/s	1.3	1:0	yft	1/2			

REMARKS

Not logged below 1100.0m due to unstable borehole conditions, data above 1100.0m is unreliable.

TOP OF SONDE

R1 R2 R3 R4

24" 8" 8" 8"

CHANNEL 4 | DEPTH | CHANNEL 2

140 INTERVAL TRANSIT TIME 60 — 140 INTERVAL TRANSIT TIME 40

microseconds/ft. — microseconds/ft.

100 110 120 130 140 150 160 170 180 190

*RADIAL SECTION

140 60 — 140 40

microseconds/ft. — DEPTH — microseconds/ft.

CHANNEL 4 — CHANNEL 2

BOREHOLE Telkwa, B.C. AREA Telkwa

CLIENT Crows Nest Resources Ltd. COUNTRY Canada

MC SONIC LOG

TK-Telkwa 82(3)A

directional survey

TW-22D-239

LOG DEPTH	0150.00	
TRUE DEPTH	0149.91	
TILT	1.36	DG
BEARING	314.24	DG
NORTHING	+003.75	
EASTING	-001.94	

LOG DEPTH	0140.00	
TRUE DEPTH	0139.91	
TILT	1.67	DG
BEARING	282.56	DG
NORTHING	+003.58	
EASTING	-001.77	

LOG DEPTH	0130.00	
TRUE DEPTH	0129.91	
TILT	2.42	DG
BEARING	307.65	DG
NORTHING	+003.52	
EASTING	-001.48	

LOG DEPTH	0120.00	
TRUE DEPTH	0119.92	
TILT	2.42	DG
BEARING	325.51	DG
NORTHING	+003.26	
EASTING	-001.15	

LOG DEPTH	0110.00	
TRUE DEPTH	0109.93	
TILT	2.28	DG
BEARING	318.29	DG
NORTHING	+002.91	
EASTING	-000.91	

LOG DEPTH	0100.00	
TRUE DEPTH	0099.94	
TILT	1.92	DG
BEARING	333.58	DG
NORTHING	+002.62	
EASTING	-000.65	

LOG DEPTH	0090.00	
TRUE DEPTH	0089.95	
TILT	2.00	DG
BEARING	343.65	DG
NORTHING	+002.32	
EASTING	-000.50	

LOG DEPTH	0080.00	
TRUE DEPTH	0079.96	
TILT	2.16	DG
BEARING	348.69	DG
NORTHING	+001.98	
EASTING	-000.40	

LOG DEPTH	0070.00	
TRUE DEPTH	0069.97	
TILT	2.08	DG
BEARING	344.92	DG
NORTHING	+001.61	
EASTING	-000.32	

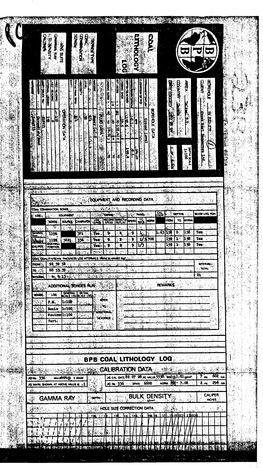
LOG DEPTH	0060.00	
TRUE DEPTH	0059.98	
TILT	2.16	DG
BEARING	338.88	DG
NORTHING	+001.26	
EASTING	-000.23	

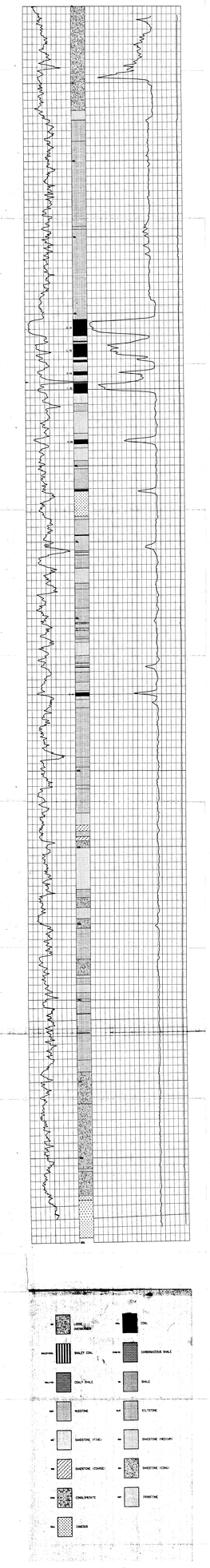
LOG DEPTH	0050.00	
TRUE DEPTH	0049.99	
TILT	1.97	DG
BEARING	341.72	DG
NORTHING	+000.91	
EASTING	-000.09	

LOG DEPTH	0040.00	
TRUE DEPTH	0040.00	
TILT	1.66	DG
BEARING	352.93	DG
NORTHING	+000.58	
EASTING	+000.00	

LOG DEPTH	0030.00	
TRUE DEPTH	0030.00	
TILT	1.71	DG
BEARING	8.76	DG
NORTHING	+000.29	
EASTING	+000.04	

LOG DEPTH	0020.00	
TRUE DEPTH	0020.00	
TILT	1.98	DG
BEARING	357.13	DG
NORTHING	+000.00	
EASTING	+000.00	


COAL LITHOLOGY LOG
BPB COAL LITHOLOGY LOG
CALIBRATION DATA
GAMMA RAY
BULK DENSITY
HOLE SIZE CORRECTION DATA


LOOSE SHEARFIELD
COAL
SHALEY COAL
CARBONACEOUS SHALE
COALY SHALE
SHALE
MUDSTONE
SILTSTONE
SANDSTONE (FINE)
SANDSTONE (MEDIUM)
SANDSTONE (COARSE)
SANDSTONE (CONG)
CONGLOMERATE
DIAMETRIC
FINEGUS

Tk-Telkwa 82(3)A

BOREHOLE TK 82-D 239 (2)
CLIENT Crows Nest Resources Ltd.
AREA Telkwa, B.C.
COUNTRY Canada
DATE LOGGED 1982 08 14
DEPTH SCALE 1:20
2 OF 6 LOGS

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	LOG TAPED	TAPING RECORD SPEED	DIRECT OR REPLAY	SPEED	PANEL TC SECS	NORM	CAL COEFF
GAMMA RAY	Yes	2	R	2	2		
LS DENSITY	Yes	2	R	2	1/3 2.06		1.0

SOURCE SONDE AND CALIBRATION
REFER TO LITHOLOGY LOG

COAL QUALITY LOG INTERVALS

FROM	92 59 52	
TO	88 55 39	
INTERVAL	4 4 13	
FROM		
TO		
INTERVAL		INTERVAL TOTAL = 21

REMARKS

BPB COAL QUALITY LOG

Gamma Ray	DEPTH	COAL BULK DENSITY g/cm³
0 API 150		6.000 sdu 0

HOLE SIZE CORRECTION DATA

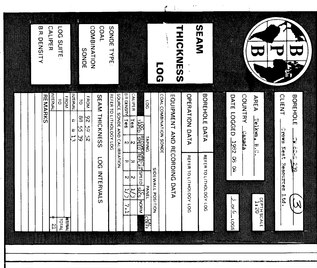
2" 4" 6" 8" — 1.2 1.25 1.3 1.35 1.4 1.45 1.5 1.55 1.6 1.7 1.8 1.9 2.0 2.2 2.4 3.0

0 API 150		6 000 sdu 0
GAMMA RAY	DEPTH	COAL BULK DENSITY g/cm³

BOREHOLE TW 82-D 239
CLIENT Crows Nest Resources Ltd.
AREA Telkwa, B.C.
COUNTRY Canada

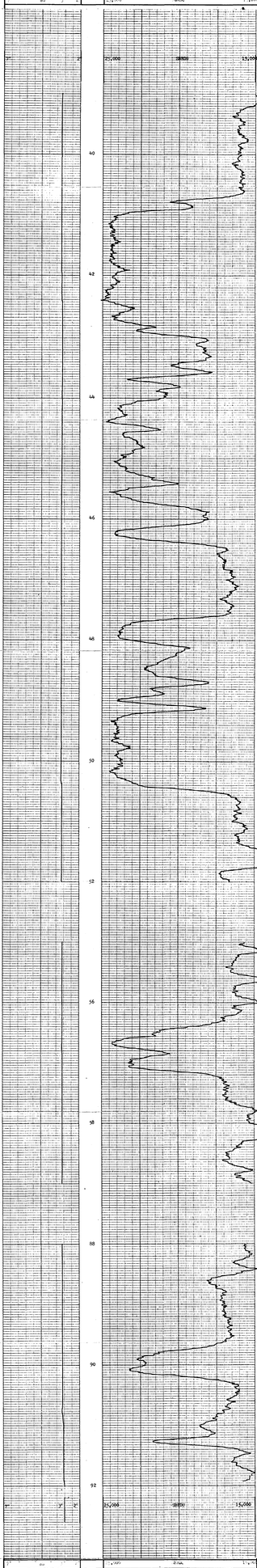
COAL QUALITY LOG

MY 88002 R



BPB SEAM THICKNESS LOG

CALIPER (INCHES) | DEPTH | BED RESOLUTION DENSITY

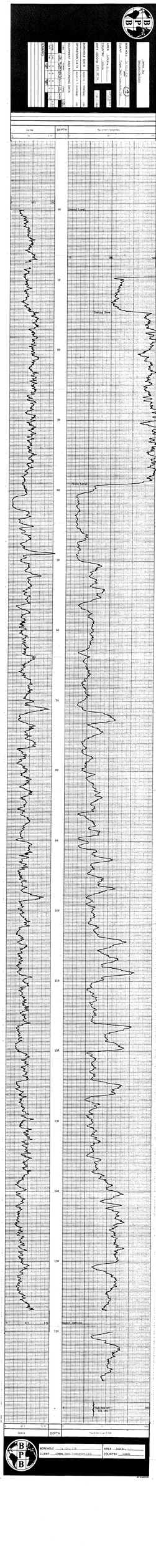


CALIPER (INCHES) | DEPTH | BED RESOLUTION DENSITY

BPB

BOREHOLE 74-20-S.29 | AREA Kitimat, B.C.
CLIENT Cross Seas Resources Ltd. | COUNTRY Canada

SEAM THICKNESS LOG



BOREHOLE
CLIENT
AREA
COUNTRY
DEPTH
Ground Level
Tested Slow
Water Level
Impact Condition
Gamma
Gamma
Depth
Tracking Gain 1 TOP

Fit Folio: 5253.M

Document Details

BOREHOLE 74-RD-29 (5)
AREA Selwyn Basin, Yukon
CLIENT Gulf Resources Ltd.
COUNTRY Canada
DATE COGGED 1975-08-26
MAX. DEPTH 1975-08-26
MAX. DEPTH 1975-08-26

OPERATIONS DATA
RUNNING 1 Electric 100
RUNNING 2 Electric 100

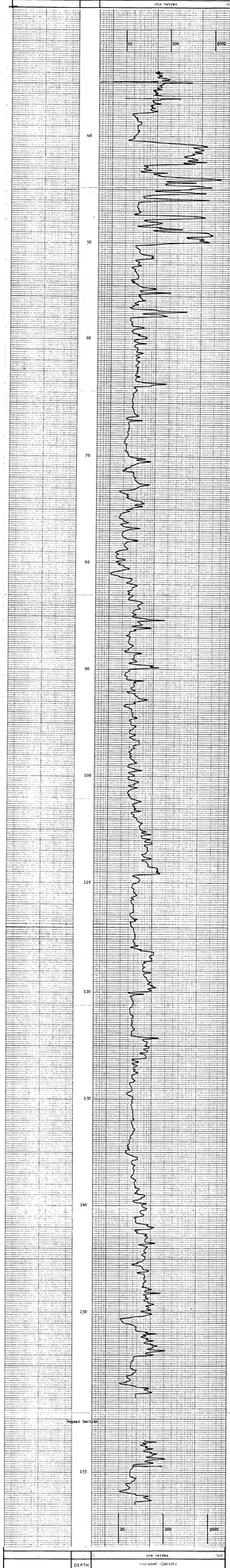
EQUIPMENT AND RECORDING DATA

USED	TEMP.	PRESS.	MEAS. POINT	FILL	
YES	75	5	5	0	
YES	75	5	5	0	

REMARKS

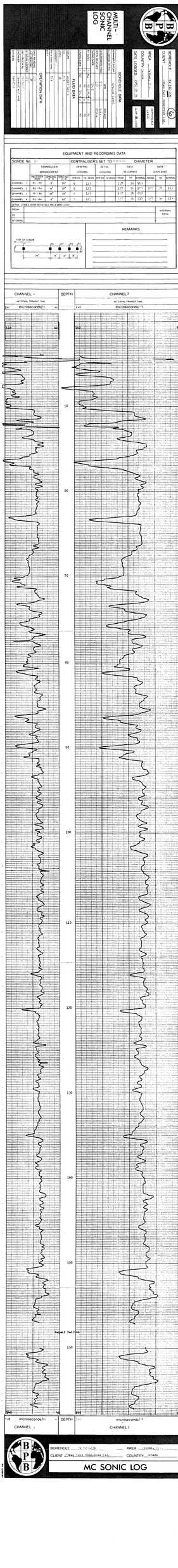
Processed Electric

DEPTH	Processed Electric
	ohm metres 100



DEPTH	ohm metres 100
	Processed Electric

BOREHOLE 74-RD-29
CLIENT Gulf Resources Ltd.
AREA Selwyn, Yukon
COUNTRY Canada


MULTI-CHANNEL SONIC LOG
B P B
REFERENCE ELEV. 14.5 ft
AREA Tiddas
COUNTRY Victoria
DATE LOGGED 28-6-78
RUN No. 1
LOGGING UNIT No. 1
OPERATING RIG No. 2
DRILLING CONTRACTOR Shell
DRILLER
REFERENCE DATA
OPERATION DATA
EQUIPMENT AND RECORDING DATA
SONDE No. 1
CENTRALISERS SET TO
DIAMETER
REMARKS
TOP OF SONDE
CHANNEL 1
CHANNEL 2
DEPTH
INTERVAL TRANSIT TIME
microseconds/ft
Tweed Section
BOREHOLE TK 102-129
AREA Tiddas
CLIENT Shell Development (Aust.)
COUNTRY Victoria
MC SONIC LOG

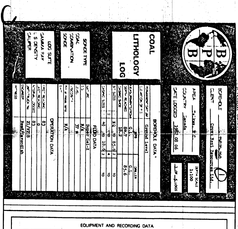
TK-Teikwa 82(3)A

Directional survey

TW-82D-240

LOG DEPTH	0080.00	
TRUE DEPTH	0080.00	
TILT	.32	DG
BEARING	187.07	DG
NORTHING	-000.21	
EASTING	+000.38	
LOG DEPTH	0070.00	
TRUE DEPTH	0070.00	
TILT	.19	DG
BEARING	136.22	DG
NORTHING	-000.16	
EASTING	+000.39	
LOG DEPTH	0060.00	
TRUE DEPTH	0060.00	
TILT	.32	DG
BEARING	99.16	DG
NORTHING	-000.13	
EASTING	+000.36	
LOG DEPTH	0050.00	
TRUE DEPTH	0050.00	
TILT	.64	DG
BEARING	120.12	DG
NORTHING	-000.12	
EASTING	+000.31	
LOG DEPTH	0040.00	
TRUE DEPTH	0040.00	
TILT	.64	DG
BEARING	111.61	DG
NORTHING	-000.07	
EASTING	+000.21	
LOG DEPTH	0030.00	
TRUE DEPTH	0030.00	
TILT	.64	DG
BEARING	105.87	DG
NORTHING	-000.03	
EASTING	+000.10	
LOG DEPTH	0020.00	
TRUE DEPTH	0020.00	
TILT	.84	DG
BEARING	132.48	DG
NORTHING	+000.00	
EASTING	+000.00	

PC



EQUIPMENT AND RECORDING DATA

LOG	EQUIPMENT		RATING			PANEL		LOG		DEPTHS			REMARKS LOG RUN
RUN	SONDE	CABLE No.	CABLE LENGTH	TELEMETRY	MAX. TEMP.	SPEED m/min	SENS.	TIME CONST.	RUN	FROM	TO	BOREHOLE FLUID	
1	1198	1	375	Yes	3	9	1			-0.30	93	Dry	Yes
2	1198	1	350	Yes	3	9	1	1/2	6.30		94	Dry	Yes
3	1198	1		Yes	3	9	1	1/2			94	Dry	Yes

CABLE TERMINATION No. THICKNESS (cm) INTERFACE (Mark to interest log)

		MEASURED TOTAL
FROM	30	33
TO	30	30
INTERVAL	3	3

ADDITIONAL SONDES RUN			REMARKS
SONDE	No.	CABLE No. & LENGTH	
	P.E.	1:100	
	G-G	1:100	
	Perf.	1:100	

BLOCK TO EQUIPMENT HEADINGS

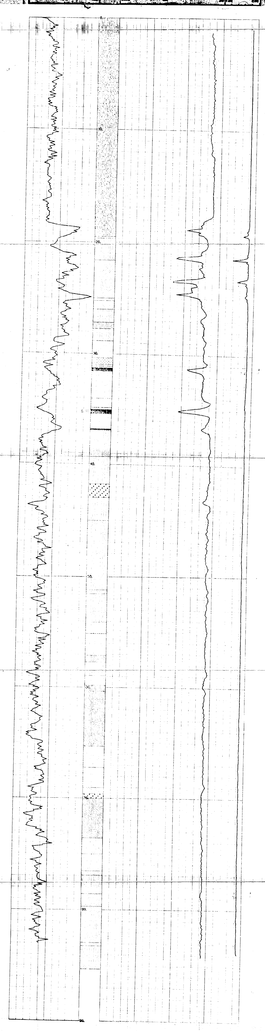
BPB COAL LITHOLOGY LOG

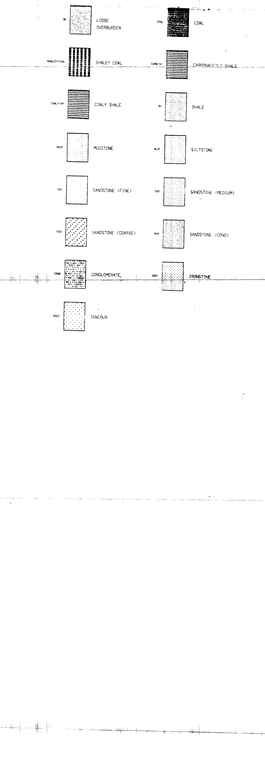
CALIBRATION DATA

AC No. 371	VALUE(Mg) = 20mV	AC CAL DATE 02 07 90	AC VALUE 1039	MAX. 1.75 g/cm³	T. no. 000 ms
AC NOW SHOWN AT WORK VALUE at 0.5		AC No. 338	DENS. 8000	NOW 2.65	T. no. 297 ms

GAMMA RAY	DEPTH	BULK DENSITY g/cc	CALIPER INCHES

HOLE SIZE CORRECTION DATA





CL	CLOSE DISTRIBUTION	COAL	COAL
SHALY COAL	SHALEY COAL	CARB SH	CARBONACEOUS SHALE
COALY SH	COALY SHALE	SH	SHALE
MST	MUDSTONE	SLST	SILTSTONE
SS	SANDSTONE (FINE)	SSM	SANDSTONE (MEDIUM)
SSC	SANDSTONE (COARSE)	SSG	SANDSTONE (GRAVELLY)
CONG	CONGLOMERATE	IRST	IRONSTONE
CHLK	CHALK		

BPB

BOREHOLE TW82D-240 (2)
CLIENT Crows Nest Resources Ltd.

AREA Telkwa, B.C.
COUNTRY Canada
DATE LOGGED 1982 08 06

DEPTH SCALE 1:20
OF 1 LOGS

COAL QUALITY LOG

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

LOG	TAPING	SIDEWALL POSITION			
GAMMA RAY	LOG RECORD	SPEED	PANEL	CAL CONST.	
L.S. DENSITY	1	2	2	1	1.00
	2	2	2	2	
	3	2	2	2	
	4	2	2	2	
	5	2	2	2	
	6	2	2	2	

SOURCE SONDE AND CALIBRATION
REFER TO LITHOLOGY LOG

COAL QUALITY LOG INTERVALS

FROM	12	24
TO	30	20
INTERVAL	7	5
FROM		
TO		
INTERVAL		

REMARKS
Field level on clay coal zone.

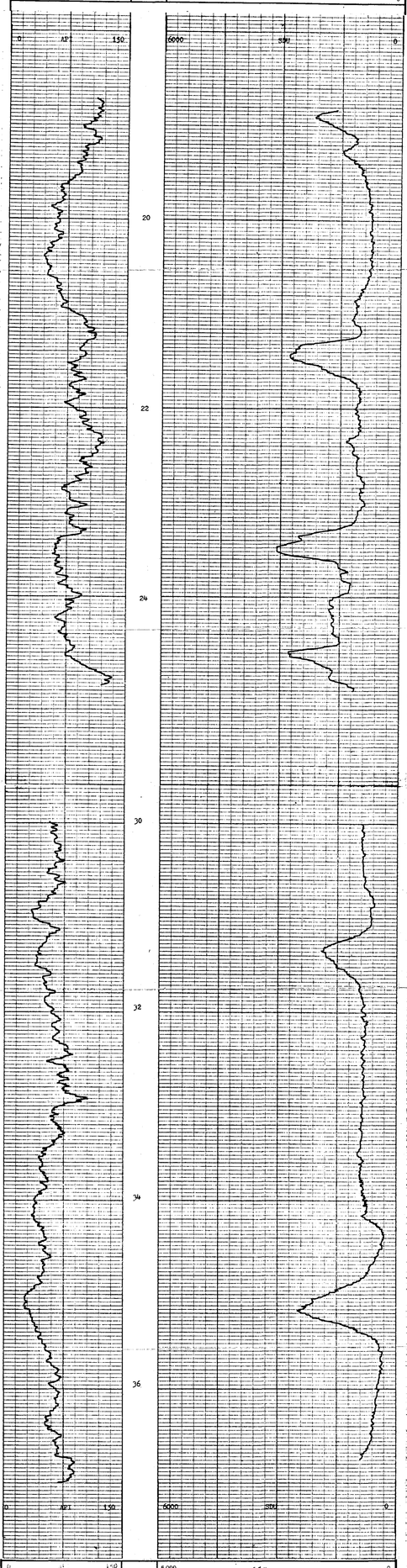
SONDE TYPE: COAL COMBINATION SONDE

LOG SUITE: GAMMA RAY L.S. DENSITY

TK-Telkwa 82(3)A

BPB COAL QUALITY LOG

GAMMA RAY	DEPTH	COAL BULK DENSITY g/cm³
0 API 150		6000 sdu 0



GAMMA RAY	DEPTH	COAL BULK DENSITY g/cm³
0 API 150		6000 sdu 0

BPB

BOREHOLE TW82D-240
CLIENT Crows Nest Resources Ltd.
AREA Telkwa, B.C.
COUNTRY Canada

COAL QUALITY LOG

BPB

SEAM THICKNESS LOG

SONDE TYPE
COAL COMBINATION SONDE

LOG SUITE
CALIPER
B.R. DENSITY

BOREHOLE TW82D-240 (3)
CLIENT Crows Nest Resources Ltd.
AREA Telkwa, B.C.
COUNTRY Canada
DATE LOGGED 1982 06 06
RUN NO. ONE
LOGGING SCALE 1:240
1 of 1 LOGS

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

LOG	RUN	BIT SIZE	CASING SIZE	CASING DEPTH	TOOL POSITION	PANEL	SCALE
COAL COMBINATION SONDE	ONE	7 7/8"	5"	1525	SIDEWALL	BACK	1:240

CALIPER	RUN	CENTRALISED	SPRING	SONDE NO.
	2	R	2	1737-110

SOURCE, SONDE AND CALIBRATION — REFER TO LITHOLOGY LOG

SEAM THICKNESS LOG INTERVALS

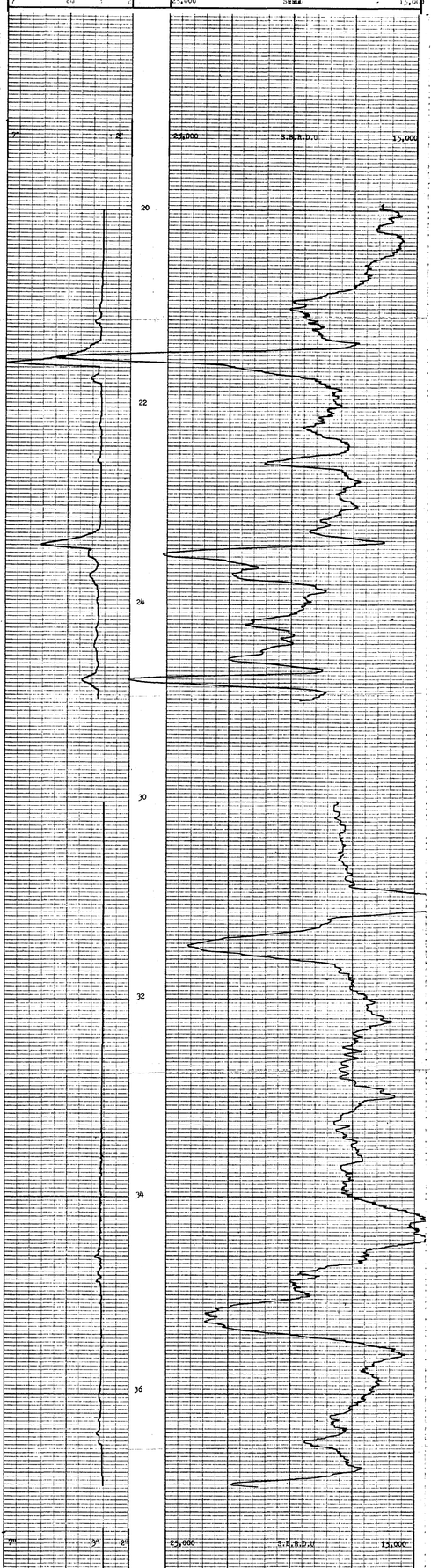
	FROM	TO
INTERVAL 1	27.24	30.20
INTERVAL 2	7.5	
INTERVAL 3		
INTERVAL 4		
TOTAL		15

REMARKS
Fluid level was below coal zone.

Tk-Telkwa 6a(3)A

B P B SEAM THICKNESS LOG

CALIPER (INCHES)	DEPTH	BED RESOLUTION DENSITY
7" dia 2"		25,000 S.B.R.D.U. 15,000



CALIPER (INCHES)	DEPTH	BED RESOLUTION DENSITY
7" dia 2"		25,000 S.B.R.D.U. 15,000

BPB

BOREHOLE TW82D-240
CLIENT Crows Nest Resources Ltd.
AREA Telkwa, B.C.
COUNTRY Canada

SEAM THICKNESS LOG

MY86003R

Tk-Telkwa 8.2(3)A

Gamma
Neutron-Neutron

BOREHOLE TW82D-240 4
CLIENT Crows Nest Resources Ltd.

AREA Telkwa, B.C.
COUNTRY Canada
DATE LOGGED 1982 01 06

OPEN SCALE 1:1000
Nov 5 1985

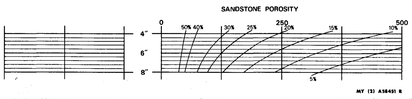
BOREHOLE DATA	REFER TO Lithology	LOG
OPERATION DATA	REFER TO Lithology	LOG

EQUIPMENT AND RECORDING DATA

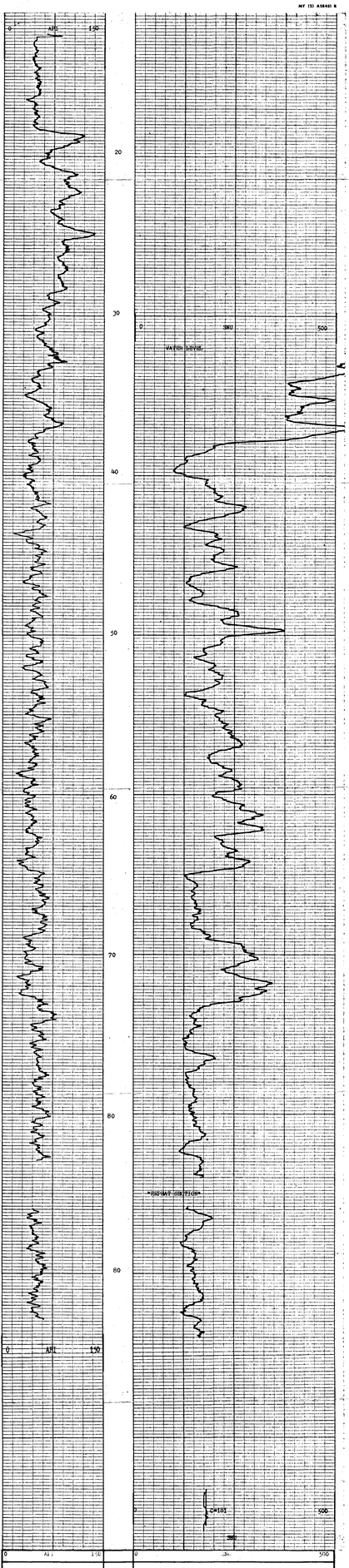
LOG	TAPING PATCH	RECORDING PATCH	PANEL	CAL. COUNT
Gamma	Yes	9	9	1
N-N	Yes	9	9	1

REMARKS	VOICE NO.	POST NO.

Gamma	DEPTH	Neutron-Neutron
0 API 150		0 SNU 500



MY (3) A58451 R



BOREHOLE TW82D-240
CLIENT Crows Nest Resources
AREA Telkwa, B.C.
COUNTRY Canada

MY A58451R

TK-Telkwa 82(3)A

Focussed Electric

BOREHOLE TW82D-240 5

CLIENT Crows Nest Resources Ltd.

AREA Telkwa, B.C.

COUNTRY Canada

DATE LOGGED 1982 08 06

OPTIMUM SCALE 1:100

1 of 2 LOGS

BOREHOLE DATA

REFER TO Lithology LOG

OPERATION DATA

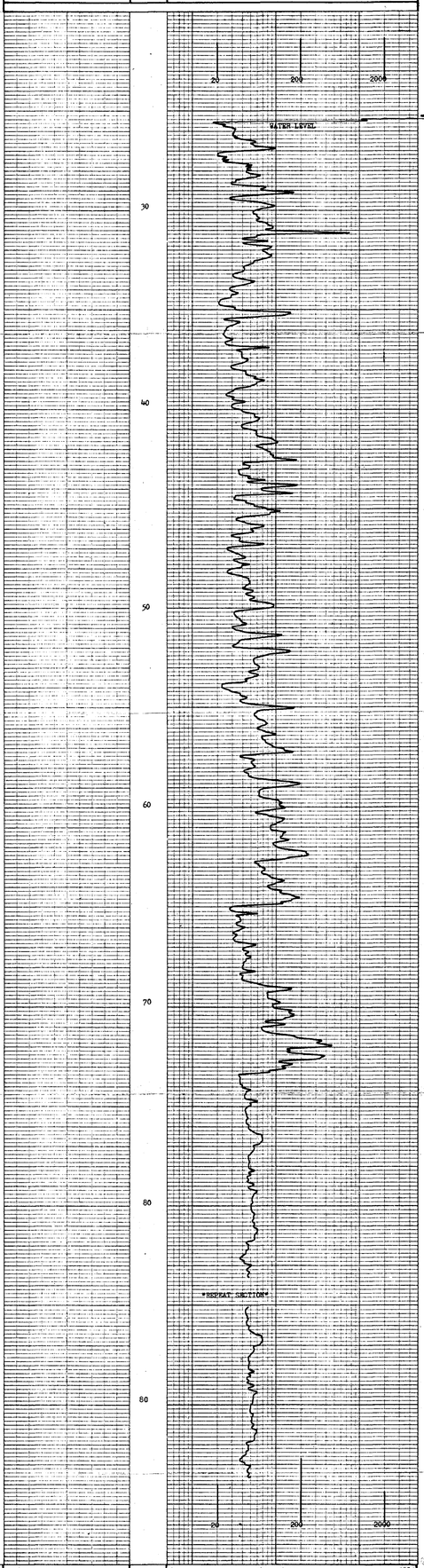
REFER TO Lithology LOG

EQUIPMENT AND RECORDING DATA

LOG	TAPING			PANEL	CAL COEFF
	LOG TAPE	RECORDING SPEED	SPEED	SEC'S	NORM
F.S.	Yes	7	0	9	-

REMARKS

DEPTH	Focussed Electric
	5 ohm metres 5000



DEPTH	Focussed Electric
	5 ohm metres 5000

BOREHOLE TW82D-240

CLIENT Crows Nest Resources Ltd.

AREA Telkwa, B.C.

COUNTRY Canada

MY A584532R

BP

COMPANY	BP EXPLORATION (U.K.) LIMITED
WELL	48/10a-4
FIELD	
COUNTY, BLOCK, OFFSHORE LOCATION	BLOCK 48/10a
OTHER SERVICES	
PERMANENT DATUM	M.S.L.
LOG MEASURED FROM	R.T. 22.0 m ABOVE PERM. DATUM
DRILLING MEASURED FROM	R.T.
DATE	15-Jul-85
RUN NO.	ONE
DEPTH-DRILLER	3135
DEPTH-LOGGER	3135
BTM. LOG INTERVAL	3135
TOP LOG INTERVAL	1198
CASING-DRILLER	1198
CASING-LOGGER	1198
BIT SIZE	12¼"
TYPE FLUID IN HOLE	KCL/POLYMER
DENSITY	1.15
VISCOSITY	45
PH	9.0
FLUID LOSS	4.0
SOURCE OF SAMPLE	FLOWLINE
RM @ MEAS. TEMP.	0.17 @ 20°C
RMF @ MEAS. TEMP.	0.15 @ 20°C
RMC @ MEAS. TEMP.	0.23 @ 20°C
SOURCE RMF & RMC	MEASURED
RM @ BHT	0.08 @ 110°C
TIME SINCE CIRC.	5 HRS
MAX. REC. TEMP.	110°C
EQUIP. LOCATION	ABERDEEN
RECORDED BY	D. MACKENZIE
WITNESSED BY	J. MCGOWAN

QUARTZ DUAL SPACED DENSITY LOG

EQUIPMENT AND RECORDING DATA

LOG	EQUIPMENT			TEMPS			PUMPED			MUD		CASING	
	SONDE	SOURCE	CALIBRATOR	MAX REC	RUN NO	TIME SINCE CIRC	MAX DEPTH	TIME SINCE CIRC	VOL	TYPE	WEIGHT	FROM	TO
G.R	1198	3021											
L.D.L		3026	0.08	110	ONE	5 HRS	3135	7.15	110	KCL/POLY	1.15	SURF	1198

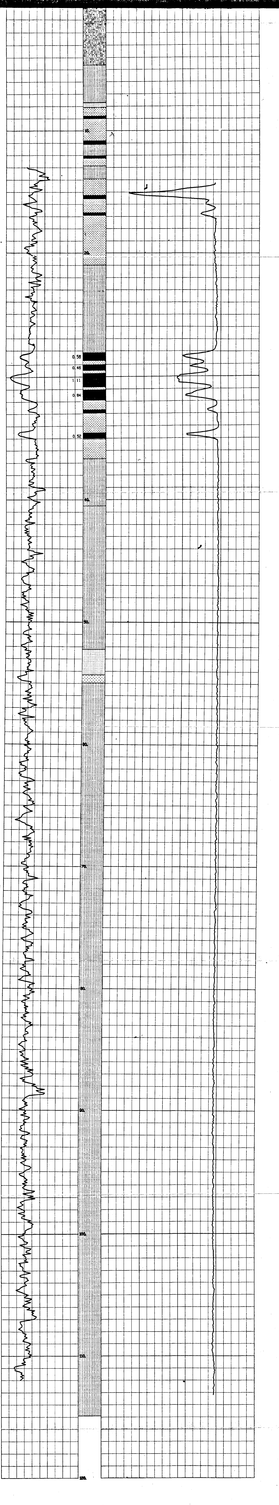
ADDITIONAL SONDES RUN

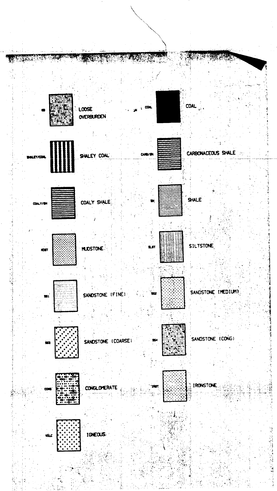
SONDE	LOG	LOCATION SCRATCHER	LOCATION SPACING
DLL	N/A	3100	N/A

REMARKS

DDS and R/E were logged through the tools.

No open hole logs were available.





TK-Telkwa 82(3)A

BOREHOLE TW82D-241 (2)
CLIENT Crows Nest Resources Ltd.

AREA Telkwa
COUNTRY Canada
DATE LOGGED 06/Aug/82

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			PANEL			CAL COEFF
	LOG TAPED	RECORD SPEED	DIRECT or REPLAY	SPEED	T.C. SECS	NORM	
GAMMA RAY	Y	2m/m	R	2m/m	2		1.00
L.S DENSITY	Y	2m/m	R	2m/m	.3	7.14	

SOURCE, SONDE AND CALIBRATION
REFER TO LITHOLOGY LOG

SONDE TYPE: COAL COMBINATION SONDE

LOG SUITE: GAMMA RAY L.S. DENSITY

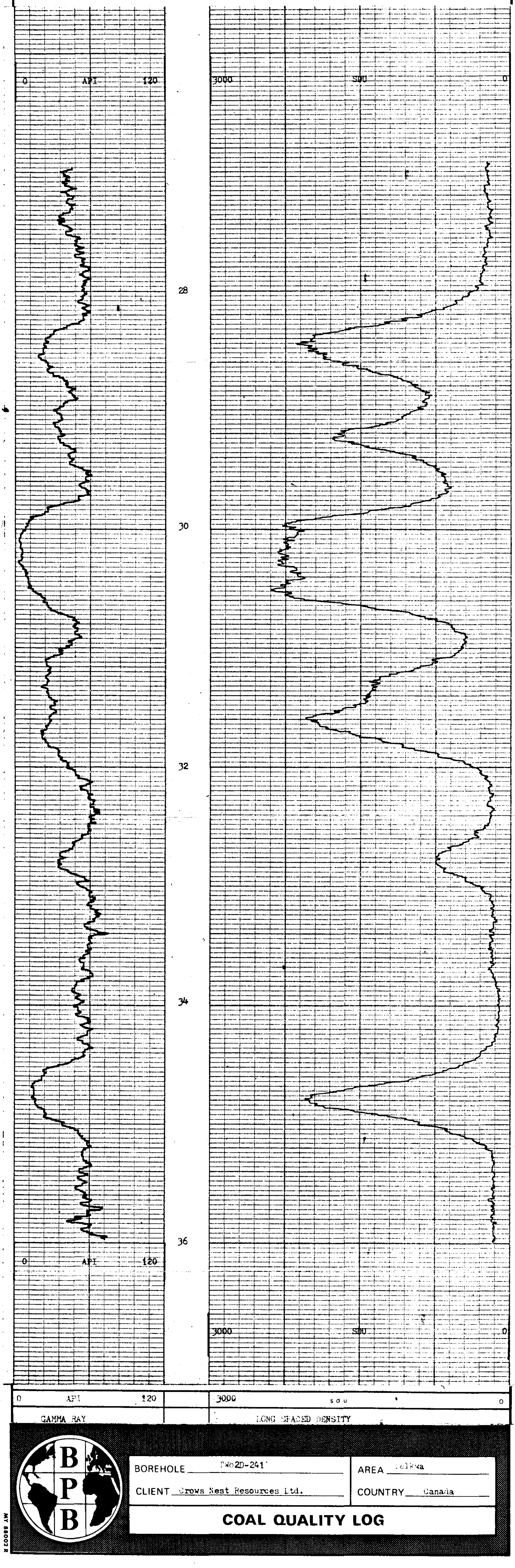
COAL QUALITY LOG INTERVALS

FROM	36.0m	
TO	27.0m	
INTERVAL	9.0m	
FROM		INTER-VAL TOTAL
TO		
INTERVAL		9.0

REMARKS

BPB COAL QUALITY LOG

GAMMA RAY | LONG SPACED DENSITY
0 API 120 | 3000 sdu 0



0 API 120 | 3000 sdu 0
GAMMA RAY | LONG SPACED DENSITY

BOREHOLE TW82D-241 **AREA** Telkwa
CLIENT Crows Nest Resources Ltd. **COUNTRY** Canada

COAL QUALITY LOG

MY 88002 R

Tk-Telkwa 82(3)A

SEAM THICKNESS LOG

SONDE TYPE
COAL COMBINATION SONDE

LOG SUITE
CALIPER
B R DENSITY

BOREHOLE TW82D-241 (3)
CLIENT Crows Nest Resources Ltd.

AREA Telkwa
COUNTRY Canada
DATE LOGGED 06/Aug/82

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						
LOG	TAPING			SIDEWALL POSITION		
	RECORD	DISPLAY	SPEED	PANEL SECS	NORM	CAL. COEFF.
CALIPER						
B R DENSITY	Y	2m/m	R	2m/m	.3	7.10
SOURCE SONDE AND CALIBRATION						
REFER TO LITHOLOGY LOG						

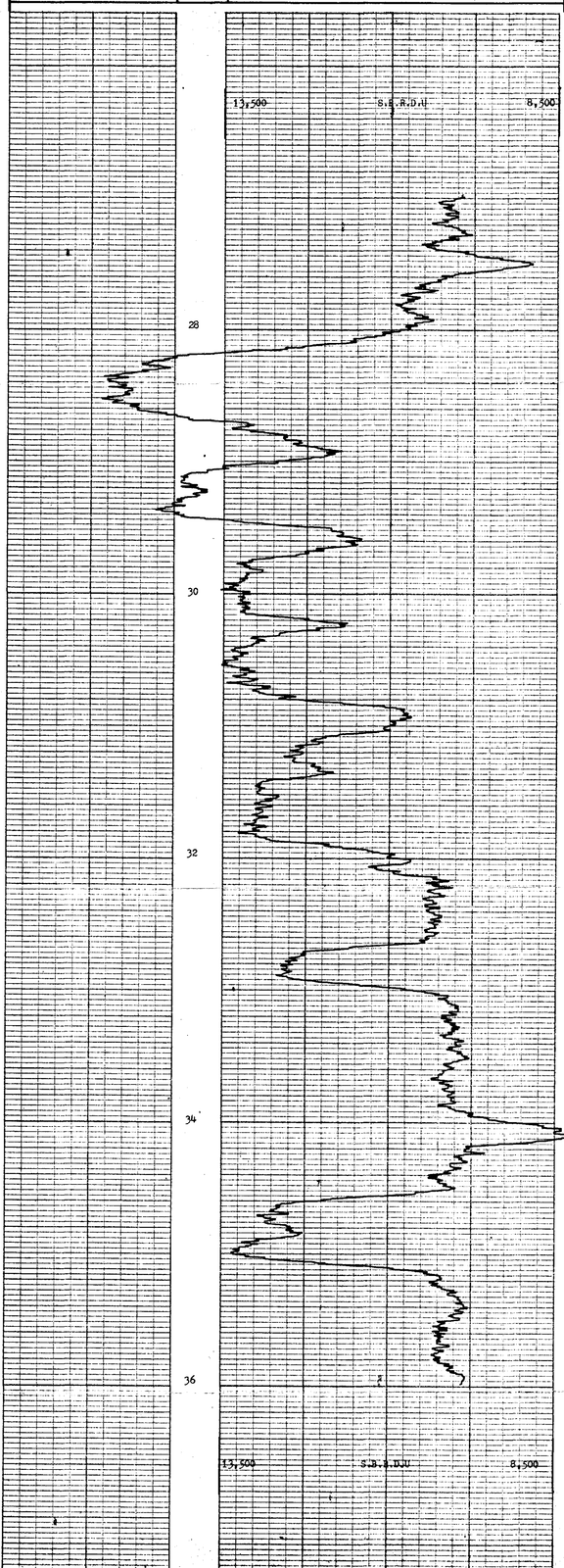
SEAM THICKNESS LOG INTERVALS

FROM	36.0m		
TO	27.0m		
INTERVAL	9.0m		
FROM			
TO			
INTERVAL			

REMARKS
No caliper log displayed as tool run inside rods.

B P B SEAM THICKNESS LOG

CALIPER INCHES	DEPTH	BED RESOLUTION DENSITY
dia		13,500 S.B.R.D.U 8,500



dia		13,500 S.B.R.D.U 8,500
CALIPER INCHES	DEPTH	BED RESOLUTION DENSITY

BOREHOLE TW82D-241
CLIENT Crows Nest Resources Ltd.
AREA Telkwa
COUNTRY Canada

SEAM THICKNESS LOG

MY 88002 R

Tx-Telkwa P2/3A

GAMMA NAT. & SCATTERING/NEUTRON INC.

BOREHOLE TW92D-241

CLIENT Crows Nest Resources Ltd.

AREA Telkwa

COUNTRY Canada

DATE LOGGED 06/Aug/92

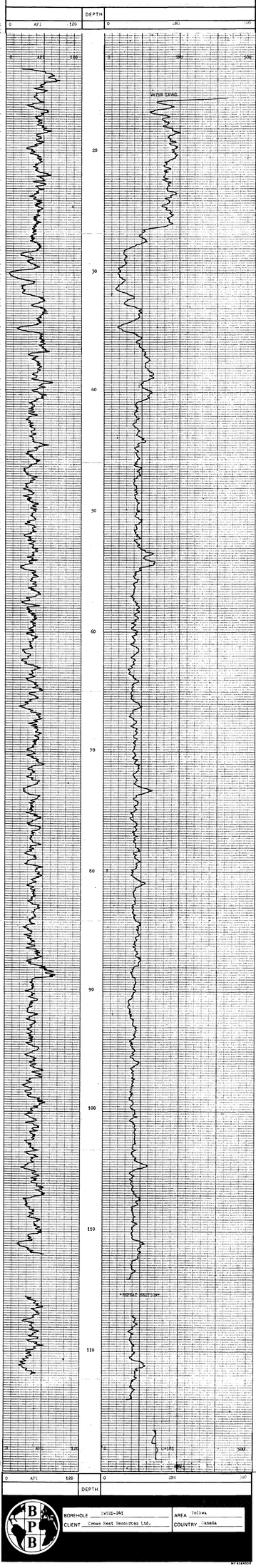
BOREHOLE DATA

OPERATION DATA

EQUIPMENT AND RECORDING DATA

LOG	TRANSMITTER	DETECTOR	SPACING	PANEL	SCALE
GR	Y	Pa/a	N	Pa/a	1.6
N/S	Y	Pa/a	N	Pa/a	1.762

REMARKS



BOREHOLE TW92D-241

CLIENT Crows Nest Resources Ltd.

AREA Telkwa

COUNTRY Canada

TK-Telkwa 82(3)A

directional survey

TW-82D-242

LOG DEPTH	0130.00	
TRUE DEPTH	0129.98	
TILT	2.18	DG
BEARING	5.45	DG
NORTHING	+001.62	
EASTING	+000.65	

LOG DEPTH	0120.00	
TRUE DEPTH	0119.99	
TILT	1.49	DG
BEARING	41.10	DG
NORTHING	+001.24	
EASTING	+000.61	

LOG DEPTH	0110.00	
TRUE DEPTH	0109.99	
TILT	.72	DG
BEARING	2.84	DG
NORTHING	+001.04	
EASTING	+000.44	

LOG DEPTH	0100.00	
TRUE DEPTH	0099.99	
TILT	.45	DG
BEARING	37.83	DG
NORTHING	+000.92	
EASTING	+000.43	

LOG DEPTH	0090.00	
TRUE DEPTH	0089.99	
TILT	.24	DG
BEARING	149.99	DG
NORTHING	+000.85	
EASTING	+000.38	

LOG DEPTH	0080.00	
TRUE DEPTH	0079.99	
TILT	.60	DG
BEARING	309.89	DG
NORTHING	+000.89	
EASTING	+000.36	

LOG DEPTH	0070.00	
TRUE DEPTH	0069.99	
TILT	1.00	DG
BEARING	19.12	DG
NORTHING	+000.82	
EASTING	+000.44	

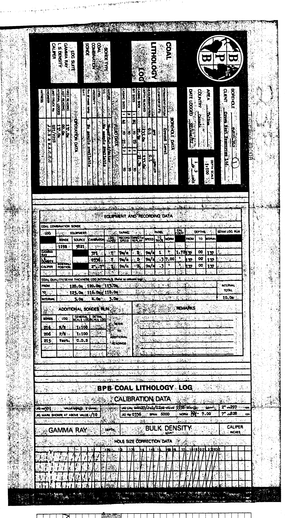
LOG DEPTH	0060.00	
TRUE DEPTH	0059.99	
TILT	.60	DG
BEARING	339.31	DG
NORTHING	+000.66	
EASTING	+000.39	

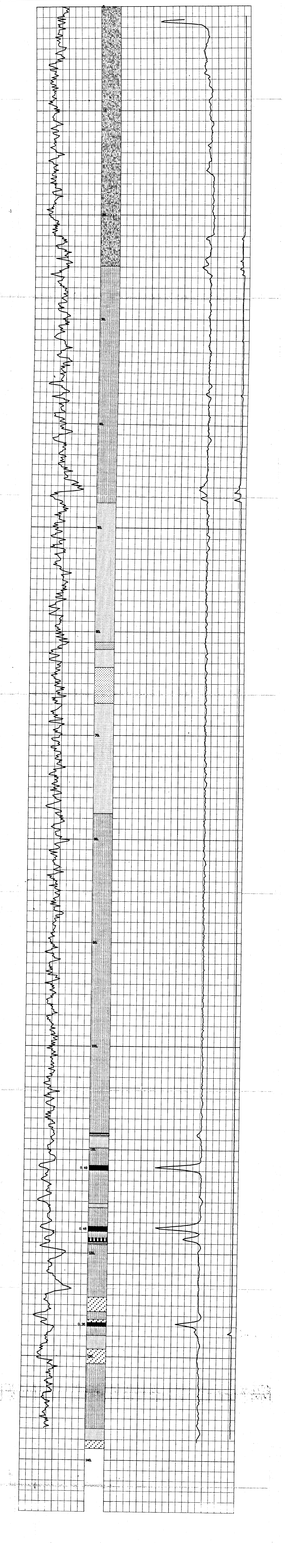
LOG DEPTH	0050.00	
TRUE DEPTH	0049.99	
TILT	.96	DG
BEARING	8.90	DG
NORTHING	+000.56	
EASTING	+000.42	

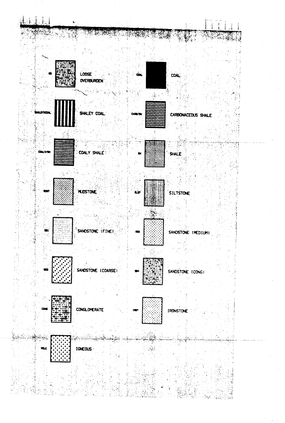
LOG DEPTH	0040.00	
TRUE DEPTH	0039.99	
TILT	1.80	DG
BEARING	75.04	DG
NORTHING	+000.39	
EASTING	+000.40	

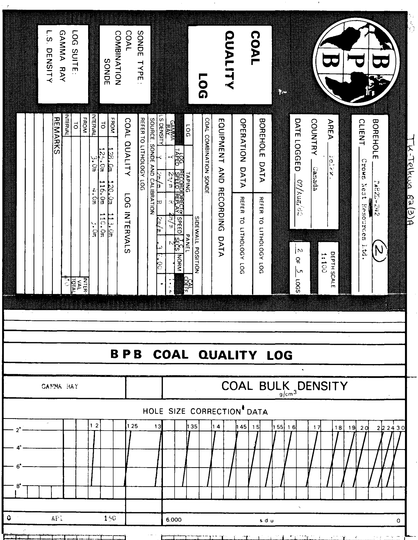
LOG DEPTH	0030.00	
TRUE DEPTH	0029.99	
TILT	1.88	DG
BEARING	17.38	DG
NORTHING	+000.31	
EASTING	+000.09	

LOG DEPTH	0020.00	
TRUE DEPTH	0020.00	
TILT	1.88	DG
BEARING	306.91	DG
NORTHING	+000.00	
EASTING	+000.00	

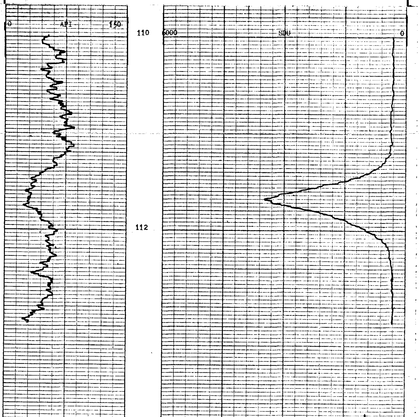

BPB
COAL LITHOLOGY LOG
CALIBRATION DATA
EQUIPMENT AND RECORDING DATA
GAMMA RAY
BULK DENSITY
CALIPER
HOLE SIZE CORRECTION DATA
ADDITIONAL BOREHOLE RUN
REMARKS

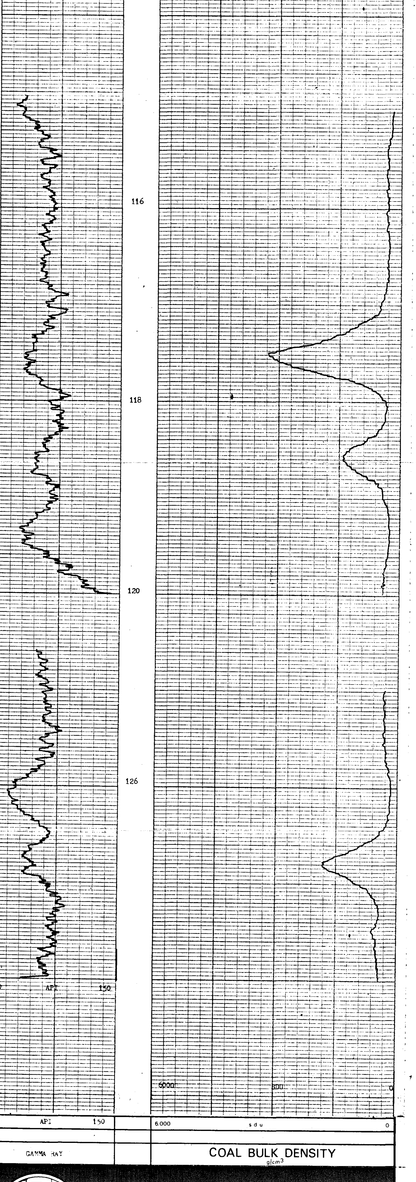



LOOSE OVERBURDEN
COAL
SHALEY COAL
CARBONACEOUS SHALE
COALY SHALE
SHALE
MUDSTONE
SILTSTONE
SANDSTONE (FINE)
SANDSTONE (MEDIUM)
SANDSTONE (COARSE)
SANDSTONE (CONG)
CONGLOMERATE
LIMESTONE
IRONSTONE



BPB COAL QUALITY LOG





0 API 150
GAMMA RAY
6.000 1.000 0
COAL BULK DENSITY
g/cm³

BPB

BOREHOLE TW82-242
CLIENT Crows Nest Resources Ltd.
AREA Tolwa
COUNTRY Canada

COAL QUALITY LOG

BPB

BOREHOLE TW82-202 (2)

CLIENT Crows Nest Resources Ltd.

AREA Telkwa

COUNTRY Canada

DATE LOGGED 07/Aug/82

DEPTH SCALE 1:20

1 OF 5 LOGS

SEAM THICKNESS LOG

SONDE TYPE
COAL COMBINATION SONDE

LOG SUITE
CALIPER
BR DENSITY

SEAM THICKNESS LOG INTERVALS

	FROM	TO
1	122.10m	122.20m
2	122.20m	123.20m

REMARKS

BOREHOLE DATA — REFER TO LITHOLOGY LOG

OPERATION DATA — REFER TO LITHOLOGY LOG

EQUIPMENT AND RECORDING DATA — REFER TO LITHOLOGY LOG

COAL COMBINATION SONDE

LOG	TAPING	SERIAL NO.
CALIPER	1 3.05m	1
BR DENSITY	2 2.74m	2
	3 2.44m	3
	4 2.13m	4
	5 1.83m	5
	6 1.52m	6
	7 1.22m	7
	8 .91m	8
	9 .61m	9
	10 .30m	10

SERIAL NO. 1005

CALIBRATION

	BEFORE	AFTER
CALIPER	2.00m	2.00m
BR DENSITY	2.00m	2.00m

Tk Telkwa 82 (3)a

B P B SEAM THICKNESS LOG

CALIPER (INCHES)	DEPTH	BED RESOLUTION DENSITY
7 6 5 dia 4 3 2		25,000 S.B.R.D.U 15,000
7" 2"	110	25,000 S.B.R.D.U 15,000
	112	
	118	
	120	
	126	
7" 2"	128	25,000 S.B.R.D.U 15,000
7 6 5 dia 4 3 2		25,000 S.B.R.D.U 15,000
CALIPER (INCHES)	DEPTH	BED RESOLUTION DENSITY

BPB

BOREHOLE TW82-202

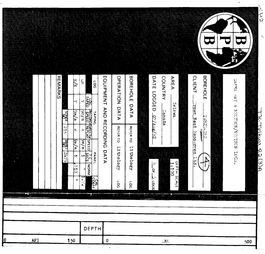
CLIENT Crows Nest Resources Ltd.

AREA Telkwa

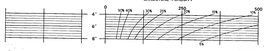
COUNTRY Canada

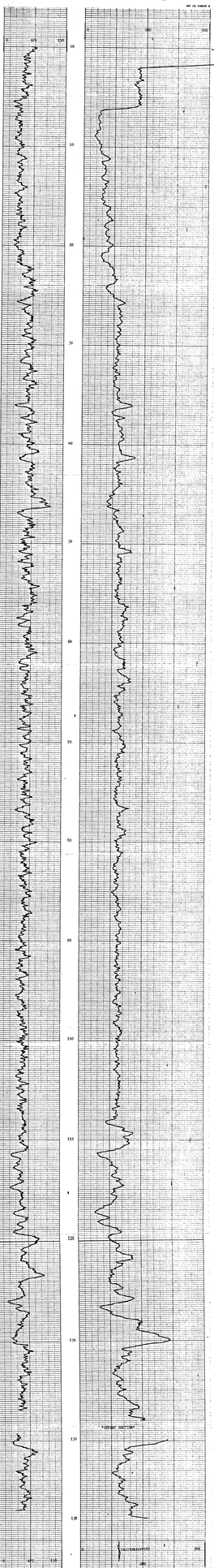
SEAM THICKNESS LOG

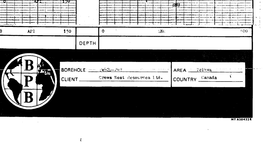
MY 88003 R

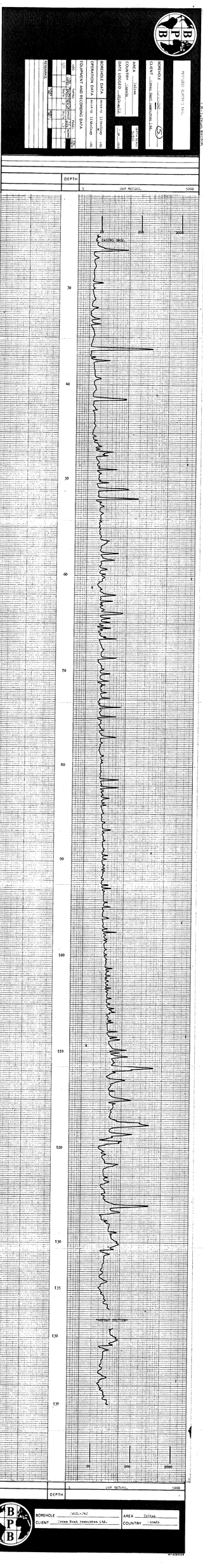


SANDSTONE POROSITY









BPB
BOREHOLE
CLIENT
AREA
COUNTRY
DATE LOGGED
OPERATION DATA
EQUIPMENT AND RECORDING DATA
REMARKS
DEPTH
5
DEPTH
BOREHOLE
CLIENT
AREA
COUNTRY

TK-Telkwa 82(3)A

Directional survey

TW-82D-244

LOG DEPTH	0150.00	
TRUE DEPTH	0150.00	
TILT	.52	DG
BEARING	206.65	DG
NORTHING	-000.20	
EASTING	+000.08	

LOG DEPTH	0140.00	
TRUE DEPTH	0140.00	
TILT	.20	DG
BEARING	183.42	DG
NORTHING	-000.12	
EASTING	+000.12	

LOG DEPTH	0130.00	
TRUE DEPTH	0130.00	
TILT	.32	DG
BEARING	142.87	DG
NORTHING	-000.09	
EASTING	+000.13	

LOG DEPTH	0120.00	
TRUE DEPTH	0120.00	
TILT	.50	DG
BEARING	40.12	DG
NORTHING	-000.04	
EASTING	+000.09	

LOG DEPTH	0110.00	
TRUE DEPTH	0110.00	
TILT	.28	DG
BEARING	333.54	DG
NORTHING	-000.11	
EASTING	+000.03	

LOG DEPTH	0100.00	
TRUE DEPTH	0100.00	
TILT	.14	DG
BEARING	242.32	DG
NORTHING	-000.15	
EASTING	+000.06	

LOG DEPTH	0090.00	
TRUE DEPTH	0090.00	
TILT	.28	DG
BEARING	125.51	DG
NORTHING	-000.14	
EASTING	+000.08	

LOG DEPTH	0080.00	
TRUE DEPTH	0080.00	
TILT	.36	DG
BEARING	128.49	DG
NORTHING	-000.11	
EASTING	+000.04	

LOG DEPTH	0070.00	
TRUE DEPTH	0070.00	
TILT	.44	DG
BEARING	185.07	DG
NORTHING	-000.07	
EASTING	-000.00	

LOG DEPTH	0060.00	
TRUE DEPTH	0060.00	
TILT	.44	DG
BEARING	173.56	DG
NORTHING	+000.00	
EASTING	+000.00	

TK-Telkwa 82(3)A

BPB COAL LITHOLOGY LOG

BOREHOLE TK82-2?? (1)
CLIENT Crows Nest Resources Ltd.
AREA Telkwa
COUNTRY Canada
DATE LOGGED 08/Aug/82
DEPTH SCALE 1:100
1 of 6 LOGS

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

BOREHOLE DATA

PERMANENT DATUM	Ground Level	
ELEVATION OF P.D		
MEASUREMENTS FROM	BPB G.L	DRILLER G.L
DEPTH REACHED	151.0m	151.4m
CASING SHOE	54.9m	54.9m
BIT SIZES	1 3¾ TO TD	2 TO
	3 TO	4 TO
CASING SIZES	1 4½ TD 55	2 TO

FLUID DATA

NATURE	Super Gel-X/Water
SG	No sample available.
LEVEL	
VISCOSITY	
Rm at meas temp	No Sample available.
BHT	

OPERATION DATA

FIRST READING	149.0m
LAST READING	00.0m
INTERVAL LOGGED	149.0m
UNIT-TRUCK No	U21/V218
ENGINEER	JDB & WACCC
WITNESS	

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	TC SECS	NORM		FROM	TO	INTERVAL	
	119	5821												
GAMMA RAY			371	Y	9m/m	R	9m/m	1	"	1.68	149	00	149	
L.S DENSITY			0336	Y	9m/m	R	9m/m	.3	7.0	"	149	00	149	
CALIPER	SIDEWALL POSITION		2"..7"	Y	9m/m	R	9m/m	.3	"	"	149	00	149	

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

FROM	89.0m	73.0m	50.0m	INTERVAL TOTAL
TO	75.0m	65.0m	41.0m	
INTERVAL	14.0m	8.0m	9.0m	31.0m

ADDITIONAL SONDES RUN

SONDE	LOG	GENERAL SCALE LOG	DETAIL SCALE LOG
216	N/N	1:100	
206	F/E	1:100	
310	M.C.S	1:100	
215	C.D.S	"	

REFER TO ADDITIONAL HEADINGS

REMARKS

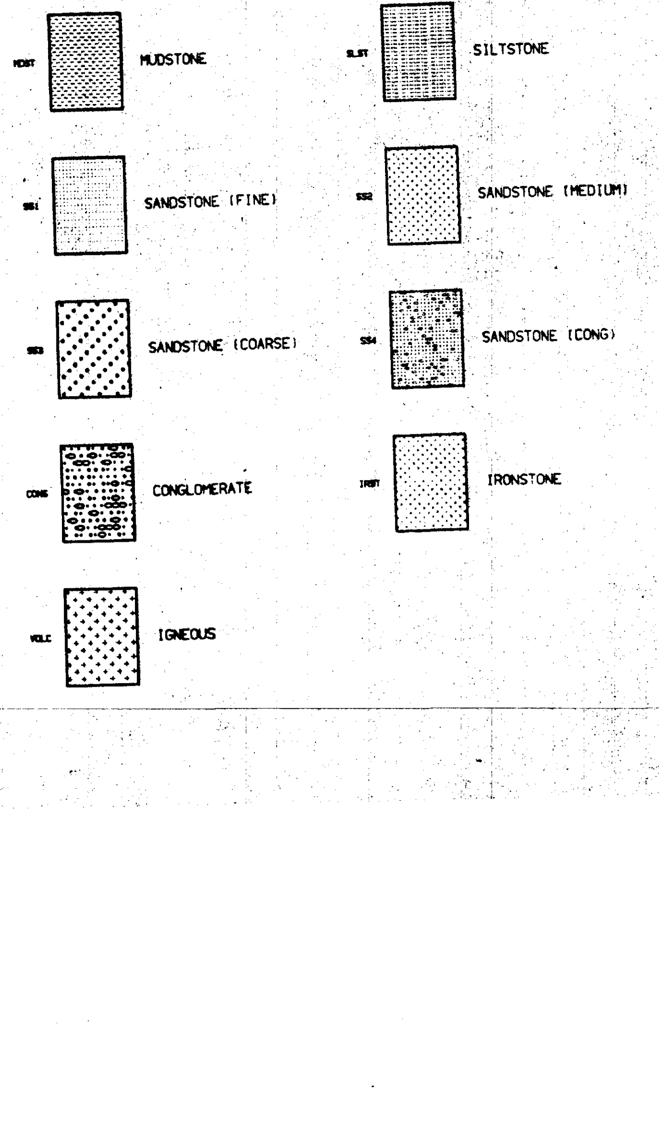
BPB COAL LITHOLOGY LOG

CALIBRATION DATA

JIG No 371 VALUE 494 @ 2 DIAM
JIG MARK SHOWN AT ABOVE VALUE - /10
JIG CAL DATE 27/Jul/82 JIG VALUE 5558 SDU @ g/cm³
JIG No 0336 SPAN 6000 NORM SDU/CPS - 7.00
7" ins 828 cps
2" ins 297 cps

GAMMA RAY	DEPTH	BULK DENSITY g/cm³	CALIPER INCHES

HOLE SIZE CORRECTION DATA



COAL QUALITY LOG

LOG SUITE: CANMA KAY L4 - COAL SEAM

LOG TYPE: COAL QUALITY

COAL QUALITY LOG INTERVALS

1	0.0	1.0	1.0
2	1.0	2.0	1.0
3	2.0	3.0	1.0
4	3.0	4.0	1.0
5	4.0	5.0	1.0
6	5.0	6.0	1.0
7	6.0	7.0	1.0
8	7.0	8.0	1.0
9	8.0	9.0	1.0
10	9.0	10.0	1.0
11	10.0	11.0	1.0
12	11.0	12.0	1.0
13	12.0	13.0	1.0
14	13.0	14.0	1.0
15	14.0	15.0	1.0
16	15.0	16.0	1.0
17	16.0	17.0	1.0
18	17.0	18.0	1.0
19	18.0	19.0	1.0
20	19.0	20.0	1.0
21	20.0	21.0	1.0
22	21.0	22.0	1.0
23	22.0	23.0	1.0
24	23.0	24.0	1.0
25	24.0	25.0	1.0
26	25.0	26.0	1.0
27	26.0	27.0	1.0
28	27.0	28.0	1.0
29	28.0	29.0	1.0
30	29.0	30.0	1.0
31	30.0	31.0	1.0
32	31.0	32.0	1.0
33	32.0	33.0	1.0
34	33.0	34.0	1.0
35	34.0	35.0	1.0
36	35.0	36.0	1.0
37	36.0	37.0	1.0
38	37.0	38.0	1.0
39	38.0	39.0	1.0
40	39.0	40.0	1.0
41	40.0	41.0	1.0
42	41.0	42.0	1.0
43	42.0	43.0	1.0
44	43.0	44.0	1.0
45	44.0	45.0	1.0
46	45.0	46.0	1.0
47	46.0	47.0	1.0
48	47.0	48.0	1.0
49	48.0	49.0	1.0
50	49.0	50.0	1.0
51	50.0	51.0	1.0
52	51.0	52.0	1.0
53	52.0	53.0	1.0
54	53.0	54.0	1.0
55	54.0	55.0	1.0
56	55.0	56.0	1.0
57	56.0	57.0	1.0
58	57.0	58.0	1.0
59	58.0	59.0	1.0
60	59.0	60.0	1.0
61	60.0	61.0	1.0
62	61.0	62.0	1.0
63	62.0	63.0	1.0
64	63.0	64.0	1.0
65	64.0	65.0	1.0
66	65.0	66.0	1.0
67	66.0	67.0	1.0
68	67.0	68.0	1.0
69	68.0	69.0	1.0
70	69.0	70.0	1.0
71	70.0	71.0	1.0
72	71.0	72.0	1.0
73	72.0	73.0	1.0
74	73.0	74.0	1.0
75	74.0	75.0	1.0
76	75.0	76.0	1.0
77	76.0	77.0	1.0
78	77.0	78.0	1.0
79	78.0	79.0	1.0
80	79.0	80.0	1.0
81	80.0	81.0	1.0
82	81.0	82.0	1.0
83	82.0	83.0	1.0
84	83.0	84.0	1.0
85	84.0	85.0	1.0
86	85.0	86.0	1.0
87	86.0	87.0	1.0
88	87.0	88.0	1.0
89	88.0	89.0	1.0
90	89.0	90.0	1.0
91	90.0	91.0	1.0
92	91.0	92.0	1.0
93	92.0	93.0	1.0
94	93.0	94.0	1.0
95	94.0	95.0	1.0
96	95.0	96.0	1.0
97	96.0	97.0	1.0
98	97.0	98.0	1.0
99	98.0	99.0	1.0
100	99.0	100.0	1.0
101	100.0	101.0	1.0
102	101.0	102.0	1.0
103	102.0	103.0	1.0
104	103.0	104.0	1.0
105	104.0	105.0	1.0
106	105.0	106.0	1.0
107	106.0	107.0	1.0
108	107.0	108.0	1.0
109	108.0	109.0	1.0
110	109.0	110.0	1.0
111	110.0	111.0	1.0
112	111.0	112.0	1.0
113	112.0	113.0	1.0
114	113.0	114.0	1.0
115	114.0	115.0	1.0
116	115.0	116.0	1.0
117	116.0	117.0	1.0
118	117.0	118.0	1.0
119	118.0	119.0	1.0
120	119.0	120.0	1.0
121	120.0	121.0	1.0
122	121.0	122.0	1.0
123	122.0	123.0	1.0
124	123.0	124.0	1.0
125	124.0	125.0	1.0
126	125.0	126.0	1.0
127	126.0	127.0	1.0
128	127.0	128.0	1.0
129	128.0	129.0	1.0
130	129.0	130.0	1.0
131	130.0	131.0	1.0
132	131.0	132.0	1.0
133	132.0	133.0	1.0
134	133.0	134.0	1.0
135	134.0	135.0	1.0
136	135.0	136.0	1.0
137	136.0	137.0	1.0
138	137.0	138.0	1.0
139	138.0	139.0	1.0
140	139.0	140.0	1.0
141	140.0	141.0	1.0
142	141.0	142.0	1.0
143	142.0	143.0	1.0
144	143.0	144.0	1.0
145	144.0	145.0	1.0
146	145.0	146.0	1.0
147	146.0	147.0	1.0
148	147.0	148.0	1.0
149	148.0	149.0	1.0
150	149.0	150.0	1.0
151	150.0	151.0	1.0
152	151.0	152.0	1.0
153	152.0	153.0	1.0
154	153.0	154.0	1.0
155	154.0	155.0	1.0
156	155.0	156.0	1.0
157	156.0	157.0	1.0
158	157.0	158.0	1.0
159	158.0	159.0	1.0
160	159.0	160.0	1.0
161	160.0	161.0	1.0
162	161.0	162.0	1.0
163	162.0	163.0	1.0
164	163.0	164.0	1.0
165	164.0	165.0	1.0
166	165.0	166.0	1.0
167	166.0	167.0	1.0
168	167.0	168.0	1.0
169	168.0	169.0	1.0
170	169.0	170.0	1.0

CANMA KAY

COAL QUALITY LOG

BORE HOLE: L4-CCH-1

CLIENT: CANMA KAY RESOURCES LTD.

AREA: CALGARY

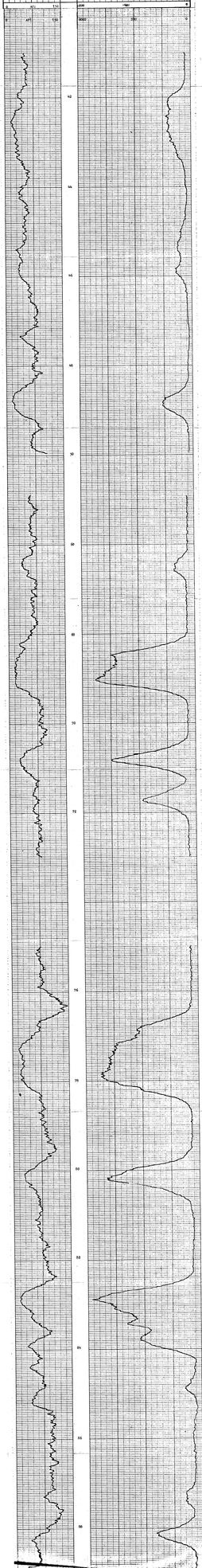
COUNTRY: CANADA

COAL QUALITY LOG

BPB COAL QUALITY LOG

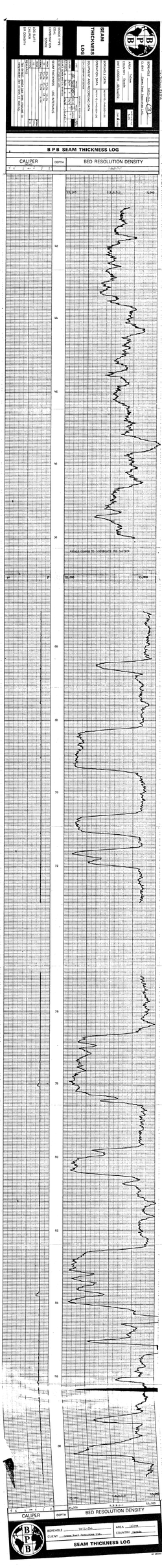
CANMA KAY | COAL BULK DENSITY

HOLE SIZE CORRECTION DATA



CANMA KAY

COAL BULK DENSITY



SEAM THICKNESS LOG
BOREHOLE
CLIENT
DATE LOGGED
BOREHOLE DATA
OPERATION DATA
EQUIPMENT AND RECORDING DATA
SEAM THICKNESS LOG INTERVALS
LOG SUITE
CALIPER
BED RESOLUTION DENSITY
CALIPER
DEPTH
BED RESOLUTION DENSITY
BOREHOLE
CLIENT
AREA
COUNTRY
SEAM THICKNESS LOG

GAMMA RAY & NEUTRON/NEUTRON DISCO.

BP BPB

CLIENT: Canada Fuel Transmission Ltd.

FORMATION: Devonian

AREA: Taltson

COUNTRY: Canada

DATE LOGGED: 26/Aug/83

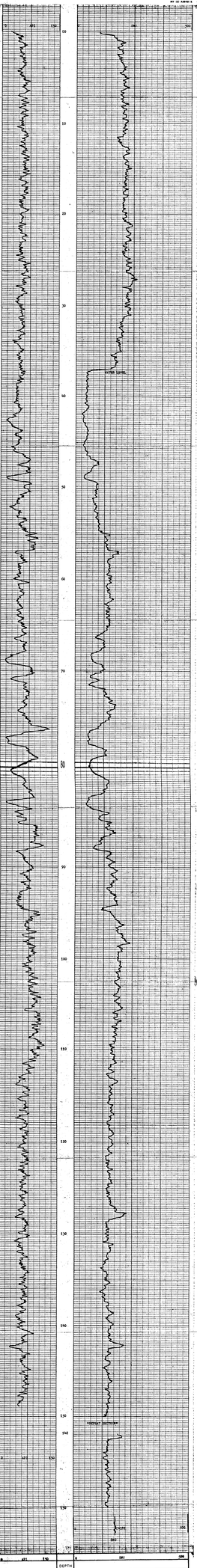
LOG NO. 4

DATUM	KB		
DRILLING MEASURED FROM	KB		
DRILLING MEASURED FROM	KB		
DATE	26/Aug/83		
RUN NO.	1		
DEPTH-DRILLER	1500		
DEPTH-LOGGER	1500		
BTM LOG INTERVAL	1500		
TOP LOG INTERVAL	0		
CASING-DRILLER	13 3/8	@	0
CASING-LOGGER	13 3/8	@	0
BIT SIZE	12 1/4		
TYPE FLUID IN HOLE	Water		
DENSITY			
VISCOSITY			
PH			
FLUID LOSS			
SOURCE OF SAMPLE	Circulation		
RM @ MEASURED TEMP			
RMF @ MEASURED TEMP			
RMC @ MEASURED TEMP			
SOURCE: RMF		RMC	
RM @ BHT			
TIME SINCE CIRC.			
MAX. REC. TEMP.			
EQUIP. NO.			
LOCATION			
RECORDED BY			
WITNESSED BY			

DEPTH		
0	471	1500

DEPTH		
0	500	500

SANDSTONE POROSITY



DEPTH		
0	471	1500

DEPTH		
0	500	500

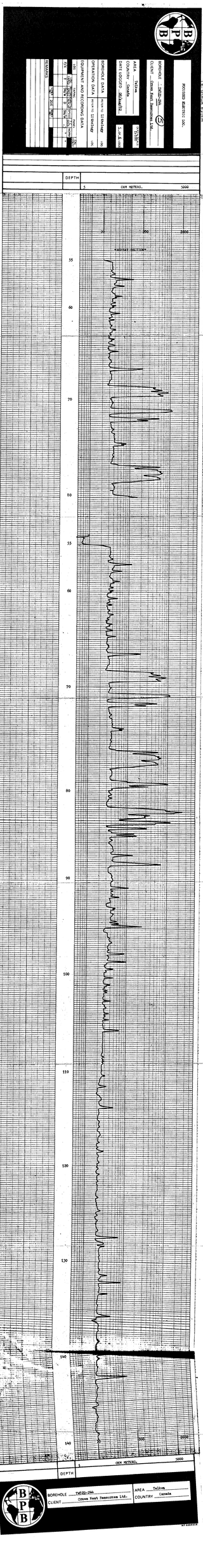
BP BPB

WELL: TWSD-2HA

CLIENT: Canada Fuel Transmission Ltd.

AREA: Taltson

COUNTRY: Canada



POTASSIUM ELECTRIC LOG.
BOREHOLE TWZD-204
CLIENT Crows Nest Resources Ltd.
AREA Tulsa
COUNTRY Canada
DATE LOGGED 06/Aug/82
BOREHOLE DATA
OPERATION DATA
EQUIPMENT AND RECORDING DATA
LOG
SEMARKS
DEPTH
CMM METERS.
5000
55
60
70
80
90
100
110
120
130
140
BOREHOLE TWZD-204
CLIENT Crows Nest Resources Ltd.
AREA Tulsa
COUNTRY Canada

MULTI-CHANNEL SONIC LOG

BPB

CLIENT: Shell UK Exploration & Production Ltd.
FIELD: Clyde
WELL: 211/27a-C4
BOREHOLE: 211/27a-C4
AREA: Inverness
COUNTRY: Scotland
DATE LOGGED: 30.3.94
RUN No.: 1
DEPTH DRILLER: 3151m
DEPTH LOGGER: 3151m
CASING: 9⅝" @ 3151m
BOREHOLE FLUID: Lignosulphonate
DENSITY: 1.14 SG
VISCOSITY: 45 sec
PH: 10.5
FLUID LOSS: 4.5 cc
RESISTIVITY: 0.2 ohm-m @ 20°C
SOURCE: Dual Sleeve Gun
SOURCE DEPTH: 5m
SOURCE PRESSURE: 2000 psi
SOURCE VOLUME: 1000 cu.in.
RECEIVER DEPTH: 3151m
RECEIVER SPACING: 1.5m
TRANSMISSION RATE: 25 per sec
TRANSMISSION MODE: Digital
RECORDING MODE: Digital
OPERATOR: Jim Smith
LOGGING ENGINEER: Dave Jones
UNIT No.: 1
CORRELATION DATA: Run 1 Gamma Ray
DEPTH CONTROL: Wireline measurement from KB
ELEVATIONS: KB 25m above MSL, DF 24m above MSL, GL 0m above MSL

EQUIPMENT AND RECORDING DATA

SONDE No. 350

CENTRALISERS SET TO

DIAMETER

	TRANSDUCER ARRANGEMENT			GENERAL LOGGING	DETAIL LOGGING	DATA RECORDED			DATA DISPLAYED	
	RECEIVER PAIR	SPACING (FT)	SPACING (CM)	UPSET (" SEC)	UPSET (" SEC)	FROM	TO	INTERVAL	FROM	INTERVAL
CHANNEL 1	R1 - R2	1'	24"			190	90	1/2		
CHANNEL 2	R2 - R4	2'	48"	96/4	-2	190	90	1/2	190	90 1/2
CHANNEL 3	R1 - R4	3'	24"			190	90	1/2		
CHANNEL 4	R3 - R4	1'	48"	64/4	-2	190	90	1/2	190	90 1/2

DETAIL ZONES (DEPLACED) - RELEVANT LOGS

FROM: See Dual Sleeve log.
TO:
INTERVAL:
INTERVAL TOTAL:

TOP OF SONDE

REMARKS

Tool was run in clean hole 74.4m to 90.0m as a calibration signal.

CHANNEL 1 — INTERVAL TRANSIT TIME/2 — microseconds/ft* — 140 — 90

DEPTH

CHANNEL 2 — INTERVAL TRANSIT TIME — 140 — 90 — microseconds/ft*

CASING BASE

REPEAT SECTION

CHANNEL 1 — INTERVAL TRANSIT TIME/2 — microseconds/ft* — 140 — 90

DEPTH

CHANNEL 2 — INTERVAL TRANSIT TIME — 140 — 90 — microseconds/ft*

BPB

BOREHOLE 211/27a-C4 AREA Inverness

CLIENT Shell UK Exploration & Production Ltd. COUNTRY Scotland

MC SONIC LOG

Tk-Telkwa 82(3)A

TW-22D-[illegible]

LOG DEPTH	0100.00	
TRUE DEPTH	0097.22	
TILT	5.82	DG
BEARING	261.91	DG
NORTHING	+000.03	
EASTING	-010.28	

LOG DEPTH	0090.00	
TRUE DEPTH	0087.27	
TILT	3.78	DG
BEARING	219.59	DG
NORTHING	+000.17	
EASTING	-009.28	

LOG DEPTH	0080.00	
TRUE DEPTH	0077.29	
TILT	2.44	DG
BEARING	201.48	DG
NORTHING	+000.68	
EASTING	-008.86	

LOG DEPTH	0070.00	
TRUE DEPTH	0067.30	
TILT	3.92	DG
BEARING	222.67	DG
NORTHING	+001.07	
EASTING	-008.70	

LOG DEPTH	0060.00	
TRUE DEPTH	0057.32	
TILT	5.04	DG
BEARING	237.14	DG
NORTHING	+001.58	
EASTING	-008.24	

LOG DEPTH	0050.00	
TRUE DEPTH	0047.36	
TILT	4.89	DG
BEARING	227.79	DG
NORTHING	+002.05	
EASTING	-007.50	

LOG DEPTH	0040.00	
TRUE DEPTH	0037.40	
TILT	5.17	DG
BEARING	229.77	DG
NORTHING	+002.63	
EASTING	-006.86	

LOG DEPTH	0030.00	
TRUE DEPTH	0027.44	
TILT	5.24	DG
BEARING	232.20	DG
NORTHING	+003.21	
EASTING	-006.18	

LOG DEPTH	0020.00	
TRUE DEPTH	0017.48	
TILT	41.58	DG
BEARING	304.65	DG
NORTHING	+003.77	
EASTING	-005.45	

LOG DEPTH	0010.00	
TRUE DEPTH	0010.00	
TILT	78.19	DG
BEARING	21.26	DG
NORTHING	+000.00	
EASTING	+000.00	

Directional survey

TK-Telkwa 82(3)A

TW-82D-2-5

LOG DEPTH	0220.00	
TRUE DEPTH	0214.15	
TILT	41.22	DG
BEARING	296.05	DG
NORTHING	+005.73	
EASTING	-026.57	

LOG DEPTH	0210.00	
TRUE DEPTH	0206.63	
TILT	5.31	DG
BEARING	244.57	DG
NORTHING	+002.83	
EASTING	-020.65	

LOG DEPTH	0200.00	
TRUE DEPTH	0196.67	
TILT	6.23	DG
BEARING	261.13	DG
NORTHING	+003.23	
EASTING	-019.81	

LOG DEPTH	0190.00	
TRUE DEPTH	0186.73	
TILT	5.24	DG
BEARING	288.71	DG
NORTHING	+003.40	
EASTING	-018.74	

LOG DEPTH	0180.00	
TRUE DEPTH	0176.77	
TILT	4.89	DG
BEARING	318.69	DG
NORTHING	+003.10	
EASTING	-017.87	

LOG DEPTH	0170.00	
TRUE DEPTH	0166.81	
TILT	6.02	DG
BEARING	294.87	DG
NORTHING	+002.46	
EASTING	-017.31	

LOG DEPTH	0160.00	
TRUE DEPTH	0156.87	
TILT	6.30	DG
BEARING	265.56	DG
NORTHING	+002.02	
EASTING	-016.35	

LOG DEPTH	0150.00	
TRUE DEPTH	0146.93	
TILT	5.66	DG
BEARING	284.38	DG
NORTHING	+002.11	
EASTING	-015.26	

LOG DEPTH	0140.00	
TRUE DEPTH	0136.98	
TILT	5.87	DG
BEARING	308.60	DG
NORTHING	+001.86	
EASTING	-014.30	

LOG DEPTH	0130.00	
TRUE DEPTH	0127.03	
TILT	6.51	DG
BEARING	295.48	DG
NORTHING	+001.22	
EASTING	-013.50	

LOG DEPTH	0120.00	
TRUE DEPTH	0117.09	
TILT	6.73	DG
BEARING	288.89	DG
NORTHING	+000.73	
EASTING	-012.48	

LOG DEPTH	0110.00	
TRUE DEPTH	0107.16	
TILT	6.51	DG
BEARING	286.73	DG
NORTHING	+000.35	
EASTING	-011.[illegible]	

238

COMPANY	BHP
WELL NAME AND NUMBER	DDH 238
FIELD OR AREA	
COUNTY OR DISTRICT	
STATE OR PROVINCE	
LOCATION	
SECTION	
TOWNSHIP	
RANGE	
PERMANENT DATUM	GROUND LEVEL
ELEVATION	
LOG MEASURED FROM	
DRILLING MEASURED FROM	
DATE	1-7-75
RUN NO.	ONE
DEPTH—DRILLER	1,570
DEPTH—LOGGER	1,570
BTM. LOG INTERVAL	1,570
TOP LOG INTERVAL	0
CASING—DRILLER	0
CASING—LOGGER	0
BIT SIZE	6 1/2
TYPE FLUID IN HOLE	
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

RUN	BIT NO.	CASING	FROM	TO	TYPE FLUID IN HOLE	DENSITY	VISCOSITY	FLUID LOSS	SOURCE OF SAMPLE	RM @ MEAS. TEMP.	RMF @ MEAS. TEMP.	RMC @ MEAS. TEMP.	RM @ BHT	TIME SINCE CIRC.	MAX. REC. TEMP.	EQUIP. LOCATION	RECORDED BY
ONE	6 1/2		0	1,570													

RADIOACTIVE SOURCE

TYPE	STRENGTH	DATE

TYPE OF RECORDER

	MAKE	SERIAL NO.	TYPE
GAMMA RAY			
CALIPER			

RECORDED BY

WITNESSED BY

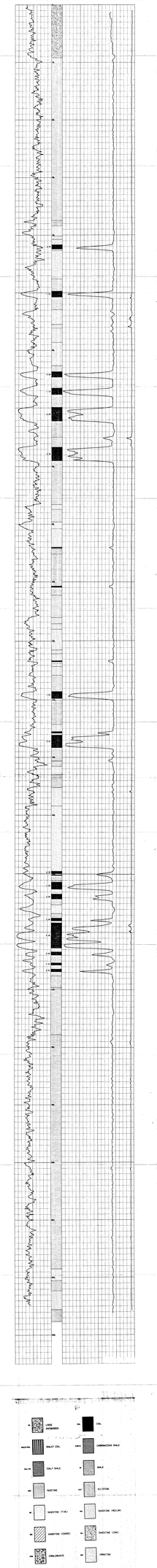
BPB COAL LITHOLOGY LOG

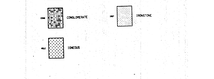
CALIBRATION DATA

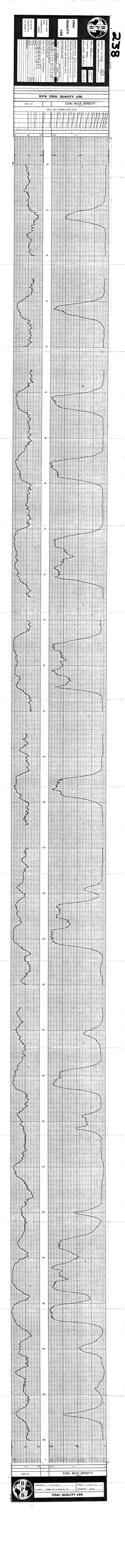
GR API	Amerada Hess	200	0	0	2.0	2.0	0
Caliper	Amerada Hess	16	6	0	2.0	2.0	0

GAMMA RAY	API's	BULK DENSITY	CALIPER INCHES
		1.9 2.0 2.1 2.2 2.3 2.4 2.5 2.6 2.7 2.8 2.9	

HOLE SIZE CORRECTION DATA






238
COAL DENSITY LOG
COAL QUALITY LOG
COAL BULK DENSITY
WELL SITE CORRECTION DATA
COAL BULK DENSITY
COAL QUALITY LOG

238

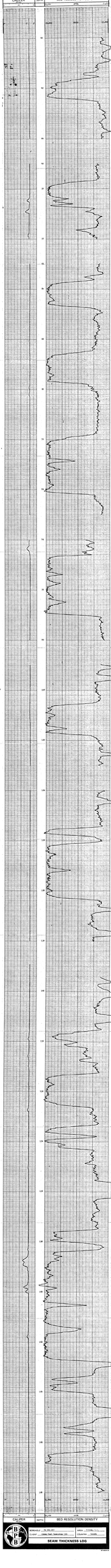
BP PB

SEAM THICKNESS LOG

WELL NAME	[illegible]
FIELD	[illegible]
COUNTY	[illegible]
STATE	[illegible]
COUNTRY	[illegible]
API NO.	[illegible]
LOCATION	[illegible]
SURFACE LOCATION	[illegible]
LATITUDE	[illegible]
LONGITUDE	[illegible]
DATUM	[illegible]
ELEVATION	[illegible]
LOG MEASURED FROM	[illegible]
DRILLING MEASURED FROM	[illegible]
PERMANENT DATUM	[illegible]
ELEVATION	[illegible]
DATE	[illegible]
RUN NO.	[illegible]
DEPTH-DRILLER	[illegible]
DEPTH-LOGGER	[illegible]
BTM LOG INTERVAL	[illegible]
TOP LOG INTERVAL	[illegible]
CASING-DRILLER	[illegible]
CASING-LOGGER	[illegible]
BIT SIZE	[illegible]
TYPE FLUID IN HOLE	[illegible]
DENSITY / VISCOSITY	[illegible]
PH / FLUID LOSS	[illegible]
SOURCE OF SAMPLE	[illegible]
RM @ MEAS. TEMP.	[illegible]
RMF @ MEAS. TEMP.	[illegible]
RMC @ MEAS. TEMP.	[illegible]
SOURCE RMF / RMC	[illegible]
RM @ BHT	[illegible]
TIME SINCE CIRC.	[illegible]
MAX. REC. TEMP.	[illegible]
EQUIP. LOCATION	[illegible]
RECORDED BY	[illegible]
WITNESSED BY	[illegible]

S P S SEAM THICKNESS LOG

CALIPER	DEPTH	BED RESOLUTION DENSITY
6 IN 16 IN	FEET METERS	1.95 G/CC 2.95



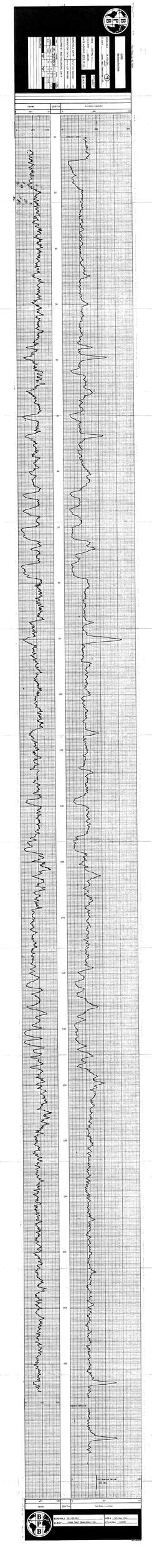
CALIPER	DEPTH	BED RESOLUTION DENSITY
6 IN 16 IN	FEET METERS	1.95 G/CC 2.95

BP PB

BOREHOLE : 16.500 IN	AREA : TOWN, [illegible]
CLIENT : Oman Fuel Transition Ltd.	STATION : [illegible]

SEAM THICKNESS LOG

COLLATING : [illegible]



BPB
BP
BOREHOLE
DEPTH
Sea Surface Fiducialism
Gamma
Gamma
Sea Surface Fiducialism

TW-246

00235

directional survey TK-Tetkwa 82(3)A

TW-82D-246

LOG DEPTH	0160.00	
TRUE DEPTH	0160.00	
TILT	.14	DG
BEARING	245.68	DG
NORTHING	-000.76	
EASTING	-000.36	

LOG DEPTH	0150.00	
TRUE DEPTH	0150.00	
TILT	.50	DG
BEARING	184.45	DG
NORTHING	-000.75	
EASTING	-000.34	

LOG DEPTH	0140.00	
TRUE DEPTH	0140.00	
TILT	.50	DG
BEARING	183.87	DG
NORTHING	-000.66	
EASTING	-000.33	

LOG DEPTH	0130.00	
TRUE DEPTH	0130.00	
TILT	.50	DG
BEARING	200.23	DG
NORTHING	-000.58	
EASTING	-000.32	

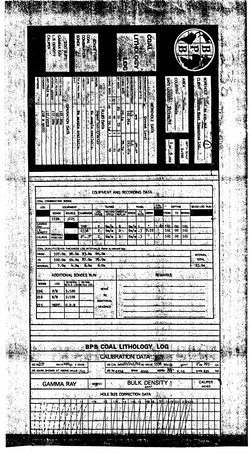
LOG DEPTH	0120.00	
TRUE DEPTH	0120.00	
TILT	.94	DG
BEARING	208.66	DG
NORTHING	-000.49	
EASTING	-000.29	

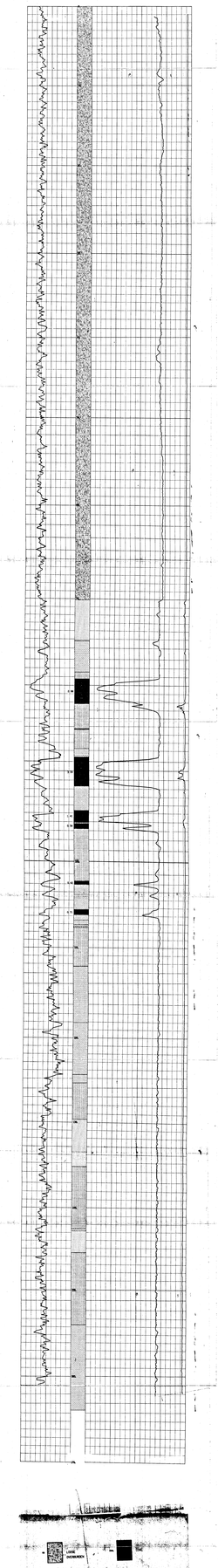
LOG DEPTH	0110.00	
TRUE DEPTH	0110.00	
TILT	1.16	DG
BEARING	233.33	DG
NORTHING	-000.35	
EASTING	-000.21	

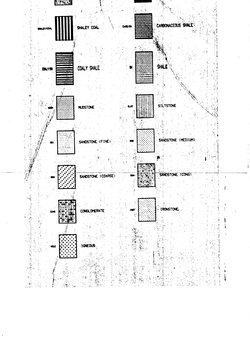
LOG DEPTH	0100.00	
TRUE DEPTH	0100.00	
TILT	1.00	DG
BEARING	214.87	DG
NORTHING	-000.23	
EASTING	-000.05	

LOG DEPTH	0090.00	
TRUE DEPTH	0090.00	
TILT	.56	DG
BEARING	153.57	DG
NORTHING	-000.08	
EASTING	+000.04	

LOG DEPTH	0080.00	
TRUE DEPTH	0080.00	
TILT	.28	DG
BEARING	130.97	DG
NORTHING	+000.00	
EASTING	+000.00	


BPB COAL LITHOLOGY LOG
CALIBRATION DATA
GAMMA RAY
BULK DENSITY
CALIPER
HOLE SIZE CORRECTION DATA




LOOSE SEDIMENT
BRIGHT COAL
DULL COAL
MUDSTONE
SANDSTONE (FINE)
SANDSTONE (MEDIUM)
SANDSTONE (COARSE)
CONGLOMERATE
CHERT
CARBONACEOUS SHALE
SHALE
SILTSTONE
SANDSTONE (MEDIUM)
SANDSTONE (COARSE)
TONSTEINE

TK-Telkwa 82(3)A

BPB

BOREHOLE TW82D-246 (2)
CLIENT Crows Nest Resources Ltd.

AREA Telkwa
COUNTRY Canada
DATE LOGGED 10/Aug/82

DEPTH SCALE 1:20

2 OF 5 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	2m/m	R	2m/m	2	'	1.67
L.S. DENSITY	Y	2m/m	R	2m/m	.5	2.10	'

SOURCE, SONDE AND CALIBRATION
REFER TO LITHOLOGY LOG

SONDE TYPE:
COAL COMBINATION SONDE

COAL QUALITY - LOG INTERVALS

FROM	107.0m	98.0m	93.0m	84.0m	
TO	100.0m	94.0m	87.0m	78.0m	
INTERVAL	7.0m	4.0m	6.0m	6.0m	
FROM					INTERVAL TOTAL
TO					
INTERVAL					23

LOG SUITE:
GAMMA RAY
L.S. DENSITY

REMARKS

BPB COAL QUALITY LOG

GAMMA

COAL BULK DENSITY g/cm³

HOLE SIZE CORRECTION DATA

GAMMA

COAL BULK DENSITY g/cm³

BOREHOLE TW82D-246
AREA Telkwa
CLIENT Crows Nest Resources Ltd.
COUNTRY Canada

COAL QUALITY LOG

BPB

SEAM THICKNESS LOG

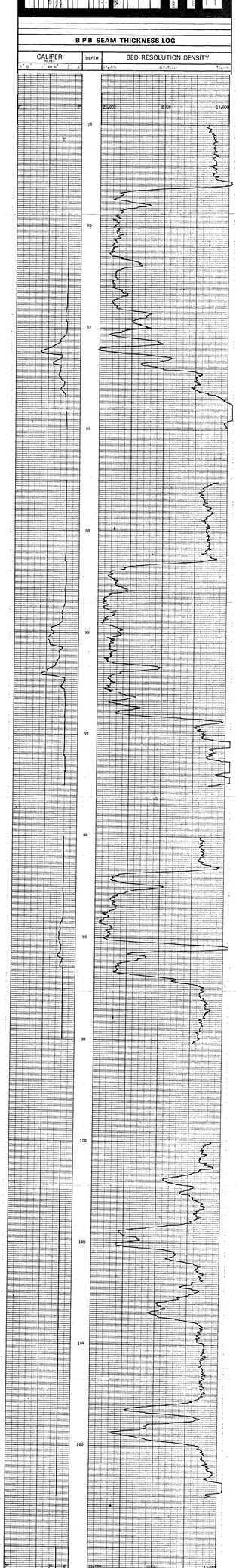
SONDE TYPE
COMBINATION SONDE

LOG SUITE
CALIPER
B.R. DENSITY

BOREHOLE	2ND-2ND
CLIENT	Crows Nest Resources Ltd.
AREA	Yellow
COUNTRY	Canada
DATE LOGGED	10/4/82
DATE PLOTTED	10/4/82

BOREHOLE DATA — REFERENCE: 10/4/82 — DATUM: 1.0 m
OPERATION DATA — REFERENCE: 10/4/82 — DATUM: 1.0 m
EQUIPMENT AND RECORDING DATA — REFERENCE: 10/4/82 — DATUM: 1.0 m
SEAM THICKNESS LOG INTERVALS

SEAM THICKNESS LOG INTERVALS					
FROM	2.00 m	2.00 m	2.00 m	2.00 m	2.00 m
TO	2.00 m	2.00 m	2.00 m	2.00 m	2.00 m
SCALE	1:50	1:50	1:50	1:50	1:50
REMARKS					



BOREHOLE 2ND-2ND
CLIENT Crows Nest Resources Ltd.
AREA Yellow
COUNTRY Canada

SEAM THICKNESS LOG

TK-Telkwa 82(3)A

NEUTRON/NEUTRON & GAMMA RAY LOGS.

BOREHOLE TK82-2?6

CLIENT Crows Nest Resources Ltd.

AREA Telkwa

COUNTRY Canada

DATE LOGGED 10/Aug/82

DEPTH SCALE 1:100

4 OF 5 LOGS

BOREHOLE DATA REFER TO lithology LOG

OPERATION DATA REFER TO lithology LOG

EQUIPMENT AND RECORDING DATA

LOG	TAPED	RECORD SPEED	REPLAY SPEED	T.C. SECS	NORM	CAL COEFF
GR	Y	9m/m	R	9m/m	1	1.5
N/N	Y	9m/m	R	9m/m	1	.751

REMARKS

BOREHOLE TK82D-246

CLIENT Crows Nest Resources Ltd.

AREA Telkwa

COUNTRY Canada

MY A58452R

Tk-Telkwa 82(3)A

FOCUSSED ELECTRIC LOG.

BOREHOLE TW82D-246 (5)

CLIENT Crows Nest Resources Ltd.

AREA Telkwa

COUNTRY Canada

DATE LOGGED 10/Aug/82

DEPTH SCALE 1:100

5 OF 5 LOGS

BOREHOLE DATA REFER TO Lithology LOG

OPERATION DATA REFER TO Lithology LOG

EQUIPMENT AND RECORDING DATA

LOG	TAPING: LOG TAPED	TAPING: RECORD SPEED	TAPING: DIRECT or REPLAY	PANEL: SPEED	PANEL: T C SECS	PANEL: NORM	CAL COEFF
F/E	Y	9m/m	D	9m/m	.3	.	.

SONDE NO 226 SOURCE NO

REMARKS

DEPTH

DEPTH

BOREHOLE TW82D-246

CLIENT Crows Nest Resources Ltd.

AREA Telkwa

COUNTRY Canada

MY A58452R

Directional survey TW-82D-247 TK-Telkwa 823

LOG DEPTH	0250.00	
TRUE DEPTH	0249.57	
TILT	3.41	DG
BEARING	159.06	DG
NORTHING	-008.44	
EASTING	-005.85	

LOG DEPTH	0240.00	
TRUE DEPTH	0239.59	
TILT	4.48	DG
BEARING	190.73	DG
NORTHING	-007.88	
EASTING	-006.06	

LOG DEPTH	0230.00	
TRUE DEPTH	0229.62	
TILT	4.75	DG
BEARING	214.55	DG
NORTHING	-007.11	
EASTING	-005.91	

LOG DEPTH	0220.00	
TRUE DEPTH	0219.65	
TILT	4.39	DG
BEARING	235.99	DG
NORTHING	-006.43	
EASTING	-005.44	

LOG DEPTH	0210.00	
TRUE DEPTH	0209.68	
TILT	4.04	DG
BEARING	266.46	DG
NORTHING	-006.00	
EASTING	-004.81	

LOG DEPTH	0200.00	
TRUE DEPTH	0199.70	
TILT	2.23	DG
BEARING	205.08	DG
NORTHING	-005.96	
EASTING	-004.10	

LOG DEPTH	0190.00	
TRUE DEPTH	0189.71	
TILT	2.44	DG
BEARING	177.02	DG
NORTHING	-005.61	
EASTING	-003.94	

LOG DEPTH	0180.00	
TRUE DEPTH	0179.72	
TILT	4.04	DG
BEARING	237.54	DG
NORTHING	-005.18	
EASTING	-003.96	

LOG DEPTH	0170.00	
TRUE DEPTH	0169.74	
TILT	3.76	DG
BEARING	257.09	DG
NORTHING	-004.80	
EASTING	-003.37	

LOG DEPTH	0160.00	
TRUE DEPTH	0159.76	
TILT	3.68	DG
BEARING	263.46	DG
NORTHING	-004.65	
EASTING	-002.73	

LOG DEPTH	0150.00	
TRUE DEPTH	0149.78	
TILT	3.34	DG
BEARING	282.76	DG
NORTHING	-004.58	
EASTING	-002.09	

LOG DEPTH	0140.00	
TRUE DEPTH	0139.80	
TILT	3.55	DG
BEARING	246.95	DG
NORTHING	-004.71	
EASTING	-001.52	

LOG DEPTH	0130.00	
TRUE DEPTH	0129.82	
TILT	4.17	DG
BEARING	193.54	DG
NORTHING	-004.47	
EASTING	-000.95	

LOG DEPTH	0120.00	
TRUE DEPTH	0119.85	
TILT	3.97	DG
BEARING	231.83	DG
NORTHING	-003.76	
EASTING	-000.78	

LOG DEPTH	0110.00	
TRUE DEPTH	0109.87	
TILT	3.40	DG
BEARING	286.39	DG
NORTHING	-003.33	
EASTING	-000.23	

LOG DEPTH	0100.00	
TRUE DEPTH	0099.89	
TILT	2.90	DG
BEARING	223.60	DG
NORTHING	-003.50	
EASTING	+000.33	

LOG DEPTH	0090.00	
TRUE DEPTH	0089.90	
TILT	2.62	DG
BEARING	151.06	DG
NORTHING	-003.13	
EASTING	+000.68	

LOG DEPTH	0080.00	
TRUE DEPTH	0079.91	
TILT	2.41	DG
BEARING	147.97	DG
NORTHING	-002.73	
EASTING	+000.46	

LOG DEPTH	0070.00	
TRUE DEPTH	0069.92	
TILT	2.41	DG
BEARING	145.32	DG
NORTHING	-002.37	
EASTING	+000.23	

LOG DEPTH	0060.00	
TRUE DEPTH	0059.93	
TILT	2.78	DG
BEARING	152.23	DG
NORTHING	-002.03	
EASTING	-000.00	

LOG DEPTH	0050.00	
TRUE DEPTH	0049.94	
TILT	3.20	DG
BEARING	157.11	DG
NORTHING	-001.60	
EASTING	-000.22	

LOG DEPTH	0040.00	
TRUE DEPTH	0039.96	
TILT	3.62	DG
BEARING	174.54	DG
NORTHING	-001.08	
EASTING	-000.44	

LOG DEPTH	0030.00	
TRUE DEPTH	0029.98	
TILT	3.90	DG
BEARING	227.73	DG
NORTHING	-000.45	
EASTING	-000.50	

LOG DEPTH	0020.00	
TRUE DEPTH	0020.00	
TILT	3.97	DG
BEARING	264.96	DG
NORTHING	+000.00	
EASTING	+000.00	

Tk-Telkwa 82(I)A

BPB COAL LITHOLOGY LOG

BOREHOLE	TW 82D-247
CLIENT	Crows Nest Resources Ltd.
AREA	Telkwa, B.C.
COUNTRY	Canada
DATE LOGGED	1982 08 12
DEPTH SCALE	1:100
	1 of 4 LOGS

SONDE TYPE: COAL COMBINATION SONDE

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

BOREHOLE DATA

	BPB	DRILLER
PERMANENT DATUM	Ground level	
ELEVATION OF P.D		
MEASUREMENTS FROM	G.L.	G.L.
DEPTH REACHED	257.7	258.5
CASING SHOE	19.2	19.3
BIT SIZES	NQ TO 258.0	TO
CASING SIZES	4½ TO 18.3	TO

FLUID DATA

NATURE	Super Gel-X
SG	N/A
LEVEL	
VISCOSITY	
Rm at meas temp	N/A
BHT	

OPERATION DATA

FIRST READING	257
LAST READING	1
INTERVAL LOGGED	256
UNIT-TRUCK No	21/523
ENGINEER	Cavenlish/Reed
WITNESS	

EQUIPMENT AND RECORDING DATA

COAL COMBINATION SONDE

LOG	SONDE	SOURCE	CALIBRATOR	LOG TAPED	RECORD SPEED m/min	DIRECT or REPLAY	SPEED m/min	TC SECS	NORM	CAL COEFF	FROM	TO	INTERVAL	SEAM LOG RUN
GAMMA RAY	1198		371	Yes	9	R	9	1		1.04	256	0	256	Yes
L.S DENSITY	1198	5821	336	Yes	9	R	9	1/3	7.3		257	1	256	Yes
CALIPER	SIDEWALL POSITION			Yes	9	R	9	1/3			257	1	256	Yes

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

FROM	213	201	185	158	147	125	117	INTERVAL TOTAL
TO	202	189	181	153	144	119	114	
INTERVAL	11	12	4	5	3	6	3	44

ADDITIONAL SONDES RUN

SONDE	LOG	GENERAL SCALE LOG	DETAIL SCALE LOG
	R.E.	1:100	
	Sonic	1:100	
	Neutron	1:100	
	CDU		

REFER TO ADDITIONAL HEADINGS

REMARKS

BPB COAL LITHOLOGY LOG

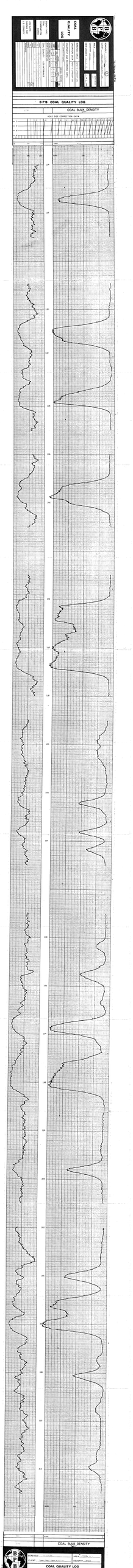
CALIBRATION DATA

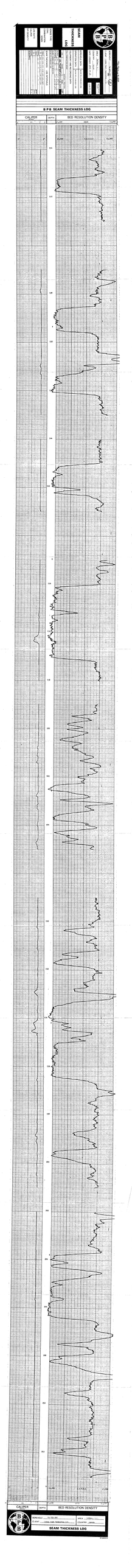
JIG No 371 VALUE 494(a) 2 DIAM	JIG CAL DATE 82 08 11 JIG VALUE 5746 SOU(a) 1.01 g/cm³	7 ins 821 cps
JIG MARK SHOWN AT ABOVE VALUE x 0.1	JIG No 336 SPAN 6000 NORM CPS 7.30	2 ins 295 cps

GAMMA RAY	DEPTH	BULK DENSITY g/cm³	CALIPER INCHES

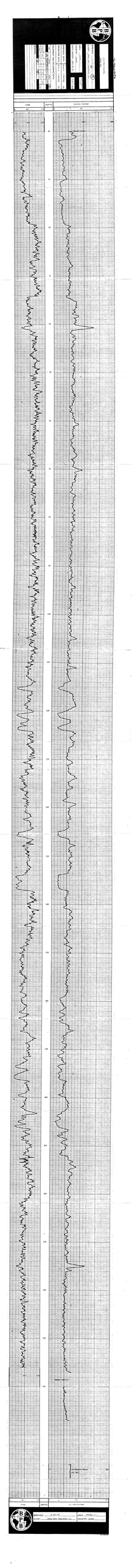
HOLE SIZE CORRECTION DATA

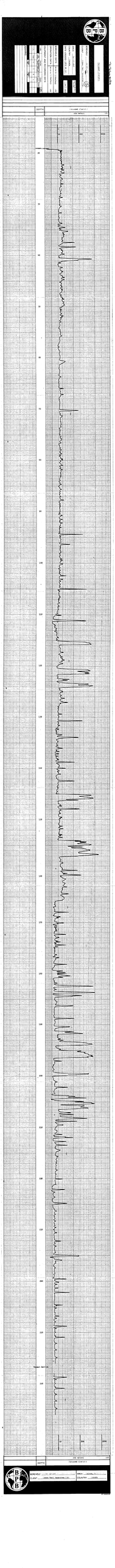
OB	LOOSE OVERBURDEN	COAL	COAL
SHALEY/COAL	SHALEY COAL	CARB/SH	CARBONACEOUS SHALE
COALY/SH	COALY SHALE	SH	SHALE
MDST	MUDSTONE	SLST	SILTSTONE
SS1	SANDSTONE (FINE)	SS2	SANDSTONE (MEDIUM)
SS3	SANDSTONE (COARSE)	SS4	SANDSTONE (CONG)
CONG	CONGLOMERATE	IRST	IRONSTONE
VOLC	IGNEOUS		

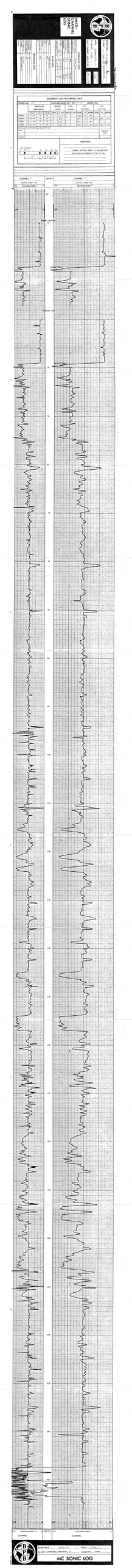

BPB COAL QUALITY LOG
COAL BULK DENSITY
HOLE SIZE CORRECTION DATA
COAL BULK DENSITY
COAL QUALITY LOG



BPB
SEAM THICKNESS LOG
BPB SEAM THICKNESS LOG
CALIPER
BED RESOLUTION DENSITY
SEAM THICKNESS LOG






SCHLUMBERGER
MC SONIC LOG
RUN NO. ONE
DATE LOGGED 10-31-72
DEPTH-DRILLER 10,000
DEPTH-LOGGER 10,000
BTM. LOG INTERVAL 10,000
TOP LOG INTERVAL 1,000
CASING-DRILLER 13 3/8 @ 1,000
CASING-LOGGER 1,000
BIT SIZE 12 1/4
TYPE FLUID IN HOLE LIGNOSULFONATE
DENS. VISC. 10.0 40
PH FLUID LOSS 10.5 6.0
SOURCE OF SAMPLE PIT
RM @ MEAS. TEMP. .25 @ 70
RMF @ MEAS. TEMP. .20 @ 70
RMC @ MEAS. TEMP. .30 @ 70
SOURCE OF RMF & RMC MEASURED
RM @ BHT .15 @ 150
TIME SINCE CIRC. 12 HRS
MAX. REC. TEMP. 150
EQUIP. NO. & LOCATION 1111 LAFAYETTE
RECORDED BY J. SMITH
WITNESSED BY R. JONES
EQUIPMENT AND RECORDING DATA
SONDE No. 110
CENTRALIZER USED YES
CASING SIZE 13 3/8
PRESSURE
MEASURED
RECORDED
MUD
MEASURED
RECORDED
CHANNEL 1
CHANNEL 2
CHANNEL 3
CHANNEL 4
REMARKS
CHANNEL 1 FILTER, 40 MIN. C.O. DELAYED 0.5 SEC.
M.C.S. RUN 1 AT 10,000 FT. 11 DB. 1/2 CYCLE
CHANNEL 1
DEPTH
CHANNEL 2
ACOUSTIC TRANSIT TIME
MICROSECONDS/FT.
ACOUSTIC TRANSIT TIME
MICROSECONDS/FT.
10,000
9,900
9,800
9,700
9,600
9,500
9,400
9,300
9,200
9,100
9,000
8,900
8,800
8,700
8,600
8,500
8,400
8,300
8,200
8,100
8,000
7,900
7,800
7,700
7,600
7,500
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7,200
7,100
7,000
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2,000
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1,600
1,500
1,400
1,300
1,200
1,100
1,000
MICROSECONDS/FT.
CHANNEL 1
DEPTH
MICROSECONDS/FT.
CHANNEL 2
SCHLUMBERGER
MC SONIC LOG
WELL
FIELD
COUNTY
STATE

Tk-Telkwa 82(3)A

Directional survey

TW-82D-248

LOG DEPTH	0260.00	
TRUE DEPTH	0259.74	
TILT	7.22	DG
BEARING	328.90	DG
NORTHING	+004.80	
EASTING	+000.07	

LOG DEPTH	0250.00	
TRUE DEPTH	0249.82	
TILT	6.72	DG
BEARING	335.74	DG
NORTHING	+003.73	
EASTING	+000.72	

LOG DEPTH	0240.00	
TRUE DEPTH	0239.89	
TILT	5.87	DG
BEARING	337.06	DG
NORTHING	+002.66	
EASTING	+001.20	

LOG DEPTH	0230.00	
TRUE DEPTH	0229.94	
TILT	5.37	DG
BEARING	338.54	DG
NORTHING	+001.72	
EASTING	+001.60	

LOG DEPTH	0220.00	
TRUE DEPTH	0219.98	
TILT	3.96	DG
BEARING	359.33	DG
NORTHING	+000.84	
EASTING	+001.94	

LOG DEPTH	0210.00	
TRUE DEPTH	0210.00	
TILT	1.44	DG
BEARING	63.98	DG
NORTHING	+000.15	
EASTING	+001.95	

LOG DEPTH	0200.00	
TRUE DEPTH	0200.00	
TILT	.80	DG
BEARING	88.04	DG
NORTHING	+000.04	
EASTING	+001.72	

LOG DEPTH	0190.00	
TRUE DEPTH	0190.00	
TILT	1.48	DG
BEARING	60.23	DG
NORTHING	+000.04	
EASTING	+001.58	

LOG DEPTH	0180.00	
TRUE DEPTH	0180.00	
TILT	1.48	DG
BEARING	56.68	DG
NORTHING	-000.00	
EASTING	+001.36	

LOG DEPTH	0170.00	
TRUE DEPTH	0170.00	
TILT	1.13	DG
BEARING	75.80	DG
NORTHING	-000.23	
EASTING	+001.14	

LOG DEPTH	0160.00	
TRUE DEPTH	0160.00	
TILT	.98	DG
BEARING	87.43	DG
NORTHING	-000.27	
EASTING	+000.95	

LOG DEPTH	0150.00	
TRUE DEPTH	0150.00	
TILT	.70	DG
BEARING	94.71	DG
NORTHING	-000.28	
EASTING	+000.78	

LOG DEPTH	0140.00	
TRUE DEPTH	0140.00	
TILT	.50	DG
BEARING	83.49	DG
NORTHING	-000.27	
EASTING	+000.65	

LOG DEPTH	0130.00	
TRUE DEPTH	0130.00	
TILT	.86	DG
BEARING	84.45	DG
NORTHING	-000.28	
EASTING	+000.57	

LOG DEPTH	0120.00	
TRUE DEPTH	0120.00	
TILT	1.34	DG
BEARING	122.19	DG
NORTHING	-000.30	
EASTING	+000.42	

LOG DEPTH	0110.00	
TRUE DEPTH	0110.00	
TILT	1.62	DG
BEARING	128.19	DG
NORTHING	-000.17	
EASTING	+000.22	

LOG DEPTH	0100.00	
TRUE DEPTH	0100.00	
TILT	1.56	DG
BEARING	122.89	DG
NORTHING	+000.00	
EASTING	+000.00	

TK-Telkwa 82(3)A

COAL LITHOLOGY LOG

BPB

SONDE TYPE: COAL COMBINATION SONDE

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

BOREHOLE: TK82D-208 (1)
CLIENT: Crows Nest Resources Ltd.
AREA: Telkwa
COUNTRY: Canada
DATE LOGGED: 11/Aug/82
DEPTH SCALE: 1:100
1 of 5 logs

BOREHOLE DATA

PERMANENT DATUM	Ground Level		
ELEVATION OF P.D.			
MEASUREMENTS FROM	K.B.		
DEPTH REACHED	271.1m	DRILLER	282.5m
CASING SHOE	90.5m		90.5m
BIT SIZES	1 NQ TO TD	2	TO
	3	4	TO
CASING SIZES	1 4½ TO 90m	2	TO

FLUID DATA

NATURE	Super Gel-X/Water
S.G.	No Sample Available.
LEVEL	30.0m
VISCOSITY	
Rm at meas temp	No Sample Available.
BHT	

OPERATION DATA

FIRST READING	271.0m
LAST READING	000.0m
INTERVAL LOGGED	271.0m
UNIT-TRUCK No	821/T218
ENGINEER	[illegible]
WITNESS	

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	TC SECS	NORM		FROM	TO	INTERVAL	
	119B	5821												
GAMMA RAY			371	Y	9m/m	D	9m/m	1	'	1.71	271	00	271	
L.S. DENSITY	SIDEWALL POSITION		0336	Y	9m/m	D	9m/m	.3	7.24	'	271	00	271	
CALIPER			7"..2"	Y	9m/m	D	9m/m	.3	'	'	271	00	271	

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

FROM	275.0m 90.0m	INTERVAL TOTAL
TO	261.0m 86.0m	
INTERVAL	14.0m 4.0m	18.0m

ADDITIONAL SONDES RUN

SONDE	LOG	GENERAL SCALE LOG	DETAIL SCALE LOG
206	F/E	1:100	
216	N/N	1:100	
215	Vert.	C.D.S	

REFER TO ADDITIONAL HEADINGS

REMARKS

BPB COAL LITHOLOGY LOG

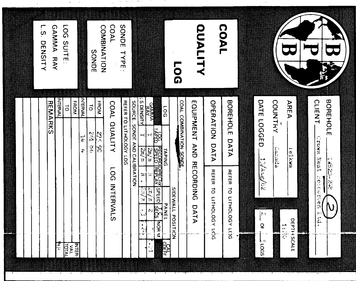
CALIBRATION DATA

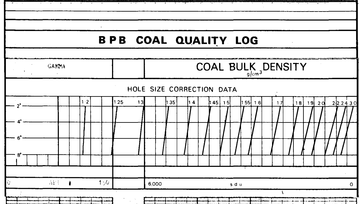
JIG No. 371 VALUE 494@ 2" DIAM	JIG CAL DATE 11/Aug/82 JIG VALUE 5746 SDU @ g/cm³	2" ins 295 cps
JIG MARK SHOWN AT ABOVE VALUE -X0.1	JIG No 0336 SPAN 6000 NORM SDU/CPS 7.24	7" ins 821 cps

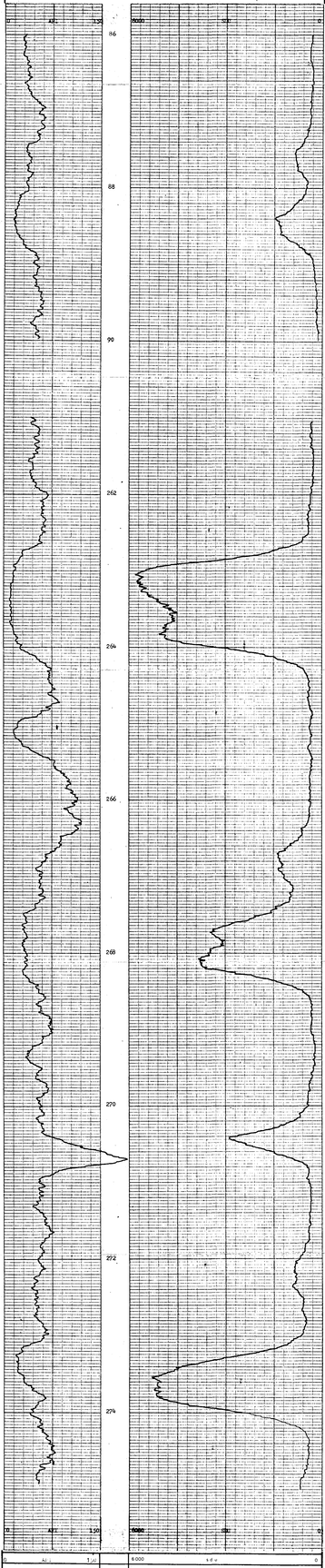
GAMMA RAY	DEPTH	BULK DENSITY g/cm³	CALIPER INCHES

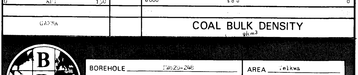
HOLE SIZE CORRECTION DATA

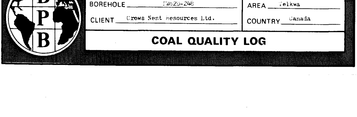
SB	LOOSE OVERBURDEN	COAL	COAL
SHALEY/COAL	SHALEY COAL	CARB/SH	CARBONACEOUS SHALE
COALY/SH	COALY SHALE	SH	SHALE
MDST	MUDSTONE	SLST	SILTSTONE
SS1	SANDSTONE (FINE)	SS2	SANDSTONE (MEDIUM)
SS3	SANDSTONE (COARSE)	SS4	SANDSTONE (CONG)
CONG	CONGLOMERATE	IRST	IRONSTONE
VOLC	IGNEOUS		


COAL QUALITY LOG
BOREHOLE
CLIENT
AREA
COUNTRY
DATE LOGGED
BOREHOLE DATA
OPERATION DATA
EQUIPMENT AND RECORDING DATA
COAL QUALITY LOG INTERVALS
SONDE TYPE:
LOG SUITE RUN
REMARKS


B P B COAL QUALITY LOG
GAMMA
COAL BULK DENSITY
HOLE SIZE CORRECTION DATA


116
88
90
262
264
266
268
270
272
274


GAMMA
COAL BULK DENSITY


BOREHOLE
CLIENT
AREA
COUNTRY
COAL QUALITY LOG

TRIPLE-ROAD 8A/8A

BPB

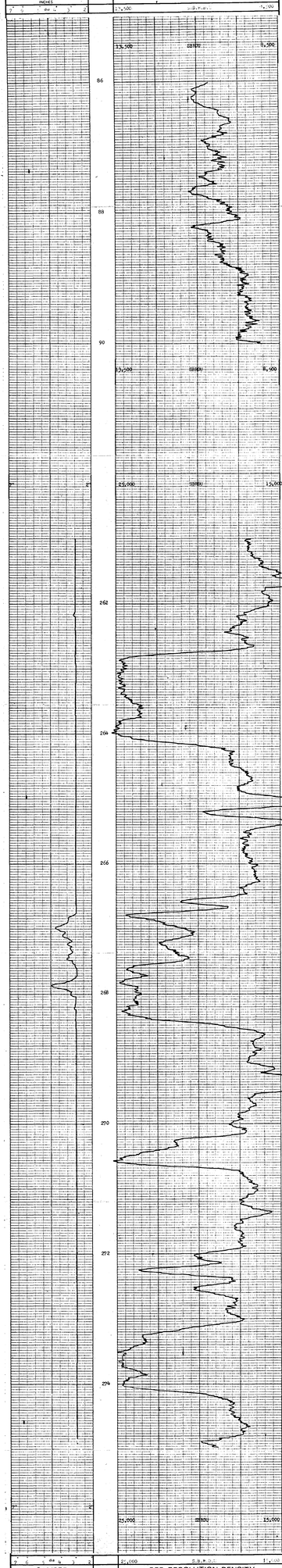
BOREHOLE	TRIPLE-ROAD
CLIENT	Crown Nest Resources Ltd.
AREA	Telkwa
COUNTRY	Canada
DATE LOGGED	13/Mar/82
DEPTH SCALE	1:200
	1:500

SEAM THICKNESS LOG

BOREHOLE DATA	REFER TO LITHOLOGY LOG
OPERATION DATA	REFER TO LITHOLOGY LOG
EQUIPMENT AND RECORDING DATA	
LOG	SIGNAL POSITION
SONDE TYPE	SEAM THICKNESS LOG INTERVALS
COAL COMBINATION SONDE	
LOG SUITE	
CALIPER	
BR DENSITY	

SEAM THICKNESS LOG INTERVALS			
FROM	27.5m 90.0ft		
TO	26.5m 85.0ft		
INTERVAL	1m 3ft		
FROM			
TO			
INTERVAL			
REMARKS			

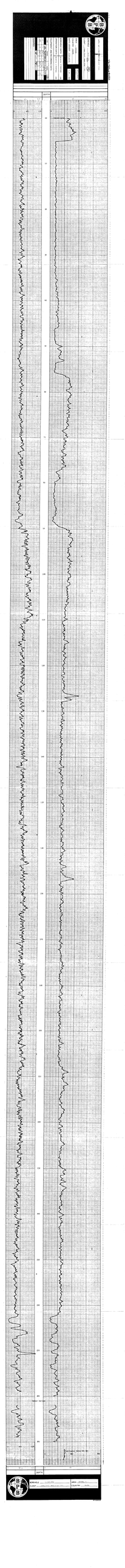
B P B SEAM THICKNESS LOG

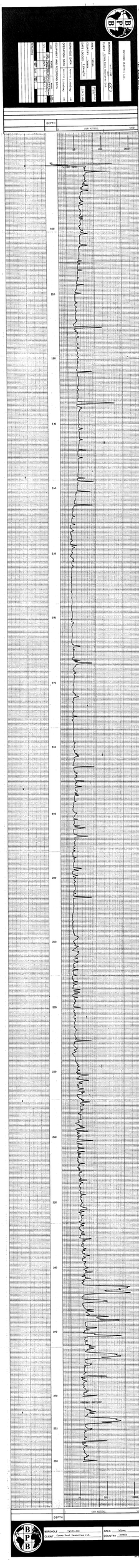


BOREHOLE	TRIPLE-ROAD
CLIENT	Crown Nest Resources Ltd.
AREA	Telkwa
COUNTRY	Canada

SEAM THICKNESS LOG

MF680093





PROJECT NO. 1
CLIENT: Chinese Geol. Investigation Tech.
AREA: Taichung
COUNTRY: Taiwan
DEPTH
LAS NATURAL
GAMMA
DEPTH
BORE HOLE: DH-20
CLIENT: Chinese Geol. Investigation Tech.
AREA: Taichung
COUNTRY: Taiwan

TK-Telkwa 82(3)A

Directional survey

TW-82D-249

LOG DEPTH	0260.00	
TRUE DEPTH	0259.95	
TILT	1.75	DG
BEARING	295.45	DG
NORTHING	+002.42	
EASTING	-007.78	
LOG DEPTH	0250.00	
TRUE DEPTH	0249.85	
TILT	1.75	DG
BEARING	292.78	DG
NORTHING	+002.28	
EASTING	-007.51	
LOG DEPTH	0240.00	
TRUE DEPTH	0239.85	
TILT	1.81	DG
BEARING	281.30	DG
NORTHING	+002.12	
EASTING	-007.23	
LOG DEPTH	0230.00	
TRUE DEPTH	0229.85	
TILT	2.14	DG
BEARING	283.50	DG
NORTHING	+002.10	
EASTING	-006.92	
LOG DEPTH	0220.00	
TRUE DEPTH	0219.86	
TILT	2.20	DG
BEARING	286.03	DG
NORTHING	+002.02	
EASTING	-006.55	
LOG DEPTH	0210.00	
TRUE DEPTH	0209.87	
TILT	2.33	DG
BEARING	298.63	DG
NORTHING	+001.91	
EASTING	-006.18	
LOG DEPTH	0200.00	
TRUE DEPTH	0199.88	
TILT	1.43	DG
BEARING	227.61	DG
NORTHING	+001.72	
EASTING	-005.83	

LOG DEPTH	0190.00	
TRUE DEPTH	0189.88	
TILT	1.43	DG
BEARING	223.93	DG
NORTHING	+001.88	
EASTING	-005.64	
LOG DEPTH	0180.00	
TRUE DEPTH	0179.88	
TILT	1.91	DG
BEARING	281.01	DG
NORTHING	+002.06	
EASTING	-005.47	
LOG DEPTH	0170.00	
TRUE DEPTH	0169.89	
TILT	1.98	DG
BEARING	294.51	DG
NORTHING	+002.00	
EASTING	-005.14	
LOG DEPTH	0160.00	
TRUE DEPTH	0159.90	
TILT	2.40	DG
BEARING	309.82	DG
NORTHING	+001.86	
EASTING	-004.82	
LOG DEPTH	0150.00	
TRUE DEPTH	0149.91	
TILT	2.12	DG
BEARING	283.99	DG
NORTHING	+001.59	
EASTING	-004.50	
LOG DEPTH	0140.00	
TRUE DEPTH	0139.92	
TILT	1.84	DG
BEARING	265.94	DG
NORTHING	+001.50	
EASTING	-004.14	
LOG DEPTH	0130.00	
TRUE DEPTH	0129.93	
TILT	1.78	DG
BEARING	302.05	DG
NORTHING	+001.52	
EASTING	-003.89	

TK-Telkwa 82(3)A

TW-82D-249

LOG DEPTH	0120.00	
TRUE DEPTH	0119.93	
TILT	2.27	DG
BEARING	319.91	DG
NORTHING	+001.35	
EASTING	-003.56	

LOG DEPTH	0110.00	
TRUE DEPTH	0109.94	
TILT	2.76	DG
BEARING	290.09	DG
NORTHING	+001.05	
EASTING	-003.30	

LOG DEPTH	0100.00	
TRUE DEPTH	0099.95	
TILT	2.70	DG
BEARING	286.64	DG
NORTHING	+000.89	
EASTING	-002.85	

LOG DEPTH	0090.00	
TRUE DEPTH	0089.96	
TILT	2.84	DG
BEARING	290.51	DG
NORTHING	+000.75	
EASTING	-002.40	

LOG DEPTH	0080.00	
TRUE DEPTH	0079.97	
TILT	2.76	DG
BEARING	286.29	DG
NORTHING	+000.58	
EASTING	-001.93	

LOG DEPTH	0070.00	
TRUE DEPTH	0069.98	
TILT	2.56	DG
BEARING	293.44	DG
NORTHING	+000.44	
EASTING	-001.47	

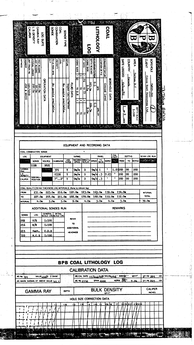
LOG DEPTH	0060.00	
TRUE DEPTH	0059.99	
TILT	2.20	DG
BEARING	317.32	DG
NORTHING	+000.26	
EASTING	-001.06	

LOG DEPTH	0050.00	
TRUE DEPTH	0050.00	
TILT	1.64	DG
BEARING	291.71	DG
NORTHING	-000.01	
EASTING	-000.80	

LOG DEPTH	0040.00	
TRUE DEPTH	0040.00	
TILT	1.72	DG
BEARING	268.49	DG
NORTHING	-000.12	
EASTING	-000.53	

LOG DEPTH	0030.00	
TRUE DEPTH	0030.00	
TILT	1.50	DG
BEARING	244.46	DG
NORTHING	-000.11	
EASTING	-000.23	

LOG DEPTH	0020.00	
TRUE DEPTH	0020.00	
TILT	1.00	DG
BEARING	202.74	DG
NORTHING	+000.00	
EASTING	+000.00	



EQUIPMENT AND RECORDING DATA

LOG RUN NO.	RUN	TOP (FT)	BOTTOM (FT)	CASING (FT)	BIT (IN)	SPEED (FPM)	TIME CONSTANT	DEPTH CONTROL
Caliper								
Gamma Ray								
Density								
Neutron								

LOG	LOG DATE	RECORDED BY	WITNESSED BY

ADDITIONAL RUN DATA

RUN	LOG	LOGGING DATE	RUN

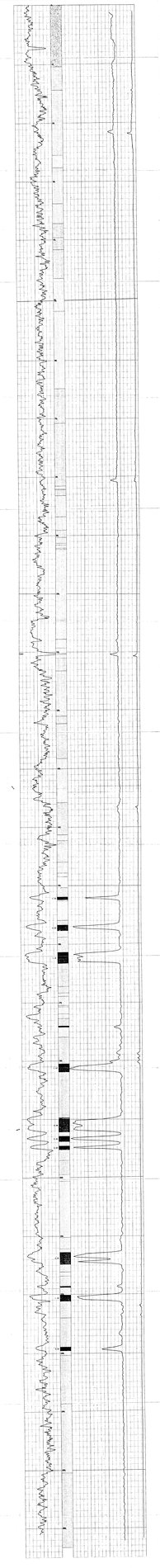
REMARKS

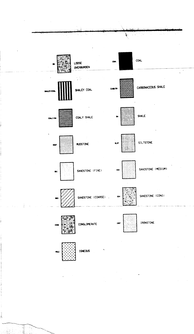
BPB COAL LITHOLOGY LOG

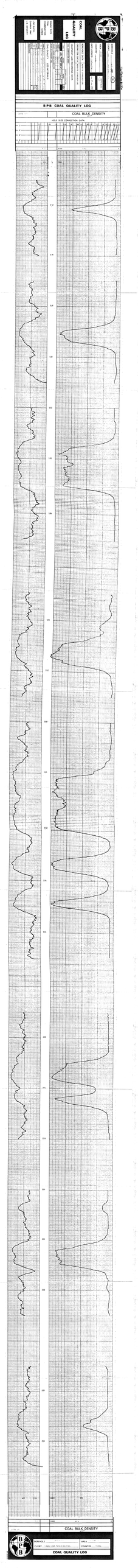
CALIBRATION DATA

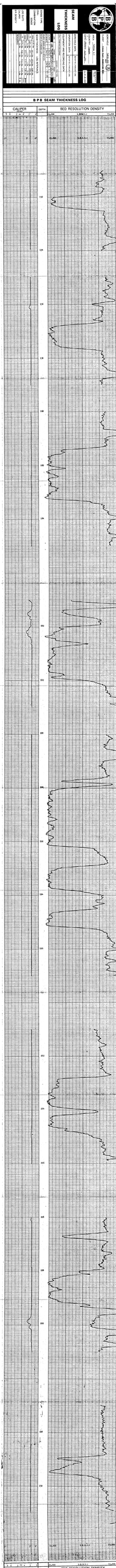
GAMMA RAY	API/in	BULK DENSITY	G/CC/in

HOLE SIZE CORRECTION DATA

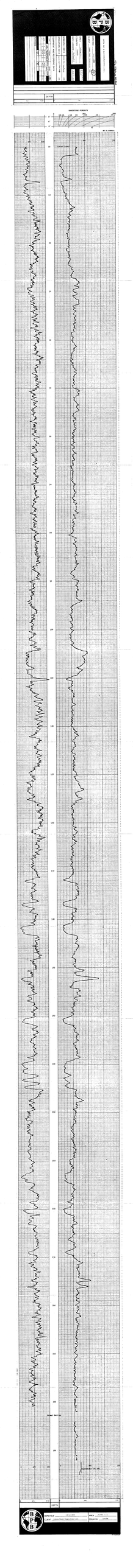





BPB COAL QUALITY LOG
COAL BULK DENSITY
HOLE SIZE CORRECTION DATA
COAL QUALITY LOG
BOREHOLE
AREA
COUNTY
COAL BULK DENSITY
COAL QUALITY LOG



B P B SEAM THICKNESS LOG
CALIPER
DEPTH
BED RESOLUTION DENSITY
SEAM THICKNESS LOG



Tk-Telkwa 82(3)A

FOCUSSED ELECTRIC LOG.

BOREHOLE TW82D-249 (5)
CLIENT Crows Nest Resources Ltd.

AREA Telkwa B.C.
COUNTRY Canada
DATE LOGGED 14/Aug/82

DEPTH SCALE 1:100

2 OF 6 LOGS

BOREHOLE DATA REFER TO Lithology LOG

OPERATION DATA REFER TO Lithology LOG

EQUIPMENT AND RECORDING DATA

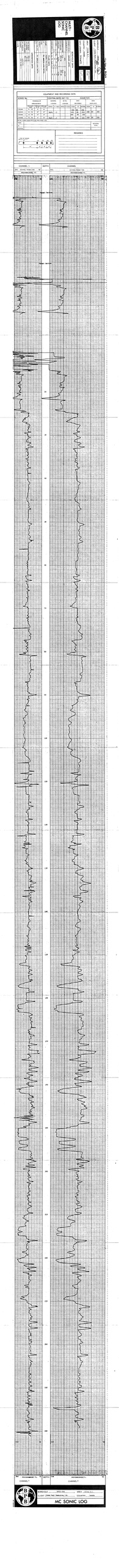
LOG	TAPING			PANEL			
	LOG TAPED	RECORD SPEED	DIRECT or REPLAY	SPEED	T.C SECS	NORM	CAL COEFF
F/E	Y	9m/m	D	9m/m	.3	•	•

SONDE NO. 226 SOURCE NO.

REMARKS

BOREHOLE TW82D-249
CLIENT Crows Nest Resources Ltd.
AREA Telkwa B.C.
COUNTRY Canada

MY A58452R


MC SONIC LOG
EQUIPMENT AND RECORDING DATA
CHANNEL 1
CHANNEL 2
REMARKS