Century #880 #880

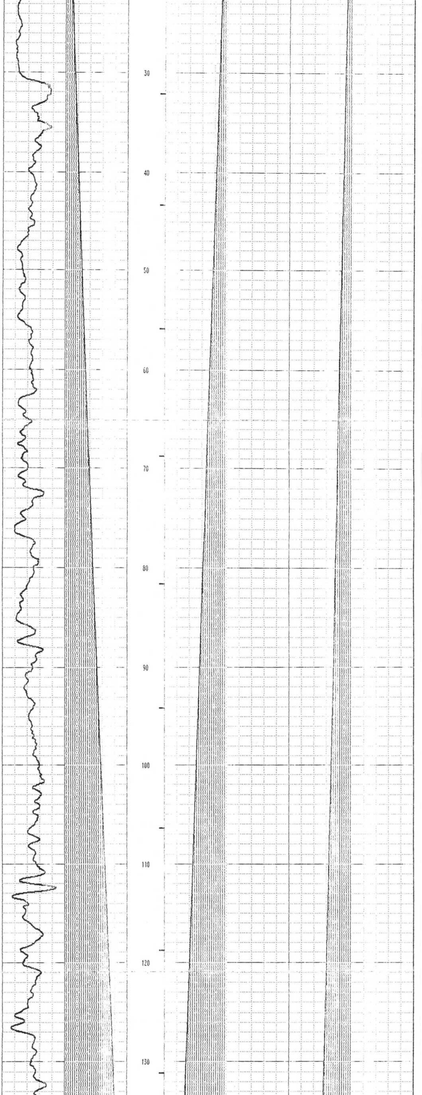
QHR 88004 DEVIATION

COMPANY	: CANTILITE CORP LTD.	OTHER SERVICES:	
WELL	: QHR 88004 DEVIATION	DEN.NEUT	
LOCATION/FIELD	: NW TOADSTOOL 2-30H TRANSFER W	GAM.RAY	
COUNTY	:	CAL.DEV	
STATE	: BRITISH COLUMBIA		
SECTION	: TWNSHIP :	RANGE :	
DATE	: 06-09-88	PERMANENT DATUM : 1350	ELEVATIONS
DEPTH DRILLER	: 198 M	ELEV. PERM. DATUM: 1350	KB : 1350
LOG BOTTOM	: 187.56	M. MEASURED FROM: 1350	DF : 1350
LOG TOP	: 0.70	M. MEASURED FROM: 1350	GL : 1350
CASING DRILLER	: M	LOGGING UNIT	: 62
CASING TYPE	: NQ	FIELD OFFICE	: CALGARY
CASING THICKNESS	: M	RECORDED BY	: W. STROEBEL
BIT SIZE	: 76	BOREHOLE FLUID	: WATER
MAGNETIC DECL.	: 24.000	RM	: 0
MATRIX DENSITY	: 2.68	RM TEMPERATURE	: 0
FLUID DENSITY	: 1.0	RM @ MEAS DEPTH T	: 1/3
NEUTRON MATRIX	: SANDSTONE	RMF @ MEAS DEPTH T	: 690
REMARKS	:		

FILE : PROCESSED
TYPE : 9055A
LOG : 0
PLOT : 90%-D
THICKNESS: 25mm

ANGLE HOLE AZIMUTH : 45 INCLINATION 45

ALL SERVICES SUPPLIED SUBJECT TO CGC STANDARD TERMS AND CONDITIONS



Century Geophysical Corp. 9055A -PROCESSED

PAGE 1

DEPTH (M)	V DEPTH M	D DIFF M	N DEV M	E DEV M	DISTANCE M	AZIMUTH DEG	SANG DEG	SANGR DEG
0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5.00	5.1	-.9	-1.4	-1.5	2.0	227.0	46.0	226.6
10.00	7.6	-2.4	-3.9	-3.9	5.6	225.4	46.0	222.2
15.00	11.1	-3.9	-6.6	-6.1	9.0	222.4	46.1	214.2
20.00	14.5	-5.5	-9.5	-8.1	11.5	220.4	46.3	216.2
25.00	18.0	-7.0	-12.3	-10.2	14.0	219.6	45.6	211.6
30.00	21.5	-8.5	-15.2	-12.0	16.4	218.1	45.8	211.2
35.00	25.0	-10.0	-18.3	-13.9	19.0	217.1	47.0	211.8
40.00	28.4	-11.6	-21.4	-15.8	21.6	216.4	47.5	211.5
45.00	31.7	-13.3	-24.5	-17.7	24.2	215.9	48.1	209.6
50.00	35.0	-15.0	-27.7	-19.6	26.9	215.5	49.0	212.0
55.00	38.2	-16.7	-30.8	-21.6	29.6	215.0	50.8	213.9
60.00	41.3	-18.7	-34.0	-23.7	32.5	214.7	52.8	211.4
65.00	44.4	-20.6	-37.3	-25.7	35.3	214.3	53.2	212.0
70.00	47.3	-22.7	-40.5	-27.6	38.0	214.1	53.3	212.2
75.00	50.3	-24.7	-43.7	-29.5	40.7	214.0	53.4	207.1
80.00	53.3	-26.7	-47.2	-31.4	43.6	213.8	53.2	209.6
85.00	56.3	-28.7	-50.6	-33.4	46.6	213.9	53.1	210.1
90.00	59.3	-30.7	-54.1	-35.3	49.6	213.9	53.4	209.9
95.00	62.2	-32.8	-57.3	-37.5	52.5	213.9	54.7	215.4
100.00	65.1	-34.9	-60.7	-39.8	55.6	213.9	55.4	210.6
105.00	67.9	-37.1	-64.0	-42.2	58.7	213.9	55.7	214.5
110.00	70.7	-39.3	-67.4	-44.6	61.8	213.9	55.8	215.3
115.00	73.5	-41.4	-70.8	-46.9	64.9	213.9	55.7	214.3
120.00	76.4	-43.6	-74.1	-49.2	68.0	213.9	55.5	214.8
125.00	79.2	-45.8	-77.5	-51.6	71.1	213.9	55.6	215.0
130.00	82.0	-48.0	-80.9	-53.9	74.2	213.9	55.4	213.0
135.00	84.9	-50.1	-84.3	-55.9	77.1	213.9	53.9	209.8
140.00	87.8	-52.1	-87.7	-57.8	80.1	213.9	54.1	208.6
145.00	90.7	-54.3	-91.1	-59.7	83.0	213.9	55.7	208.3
150.00	93.5	-56.4	-94.4	-61.6	85.7	213.9	55.4	209.5
155.00	96.4	-58.6	-97.7	-63.8	88.5	213.9	55.7	214.7
160.00	99.2	-60.8	-101.1	-66.1	91.4	213.9	55.3	215.7
165.00	102.0	-62.9	-104.4	-68.4	94.2	213.9	54.4	212.8

#880

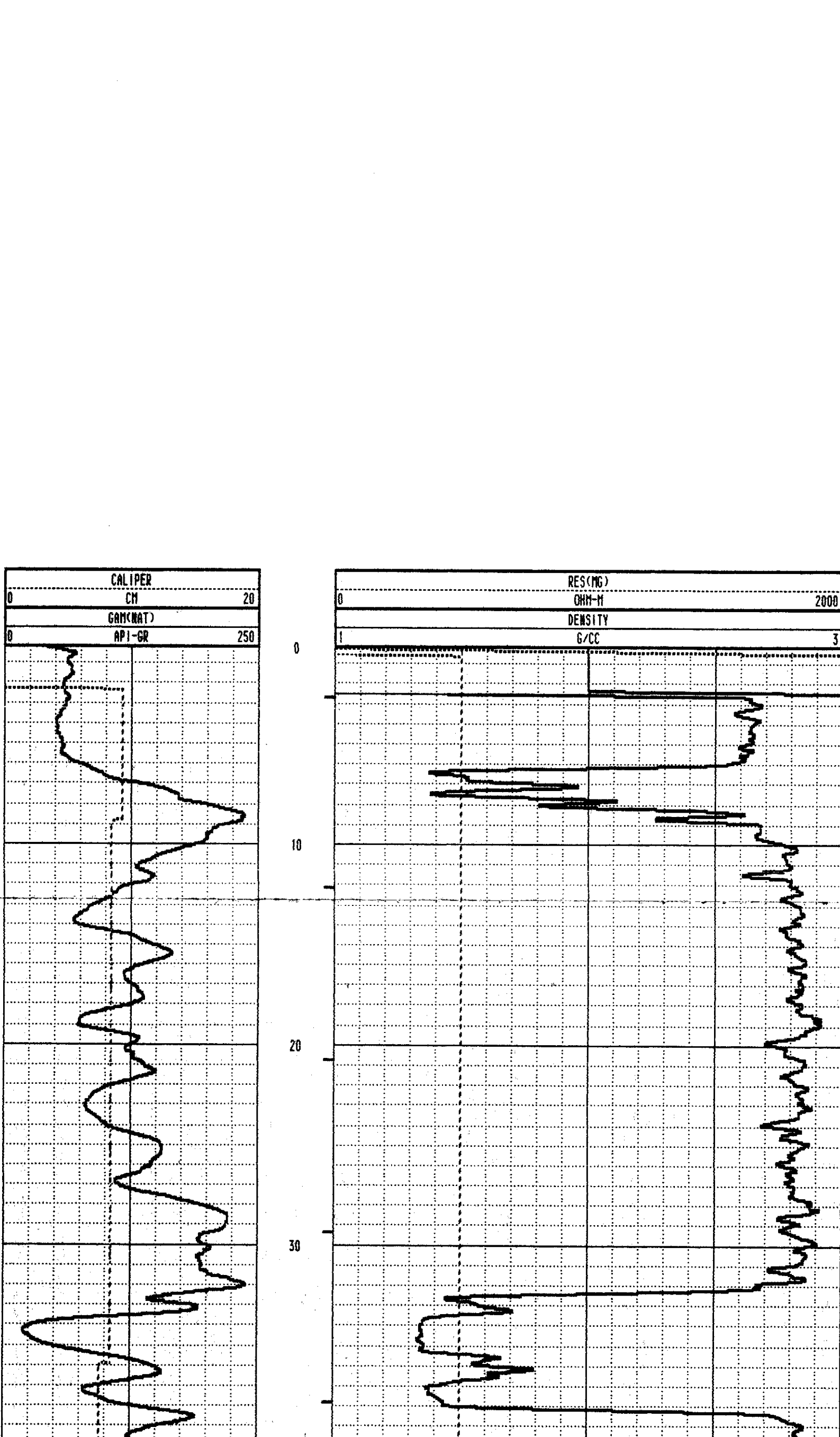
Century

QHD 88005 GAMMA-DENSITY

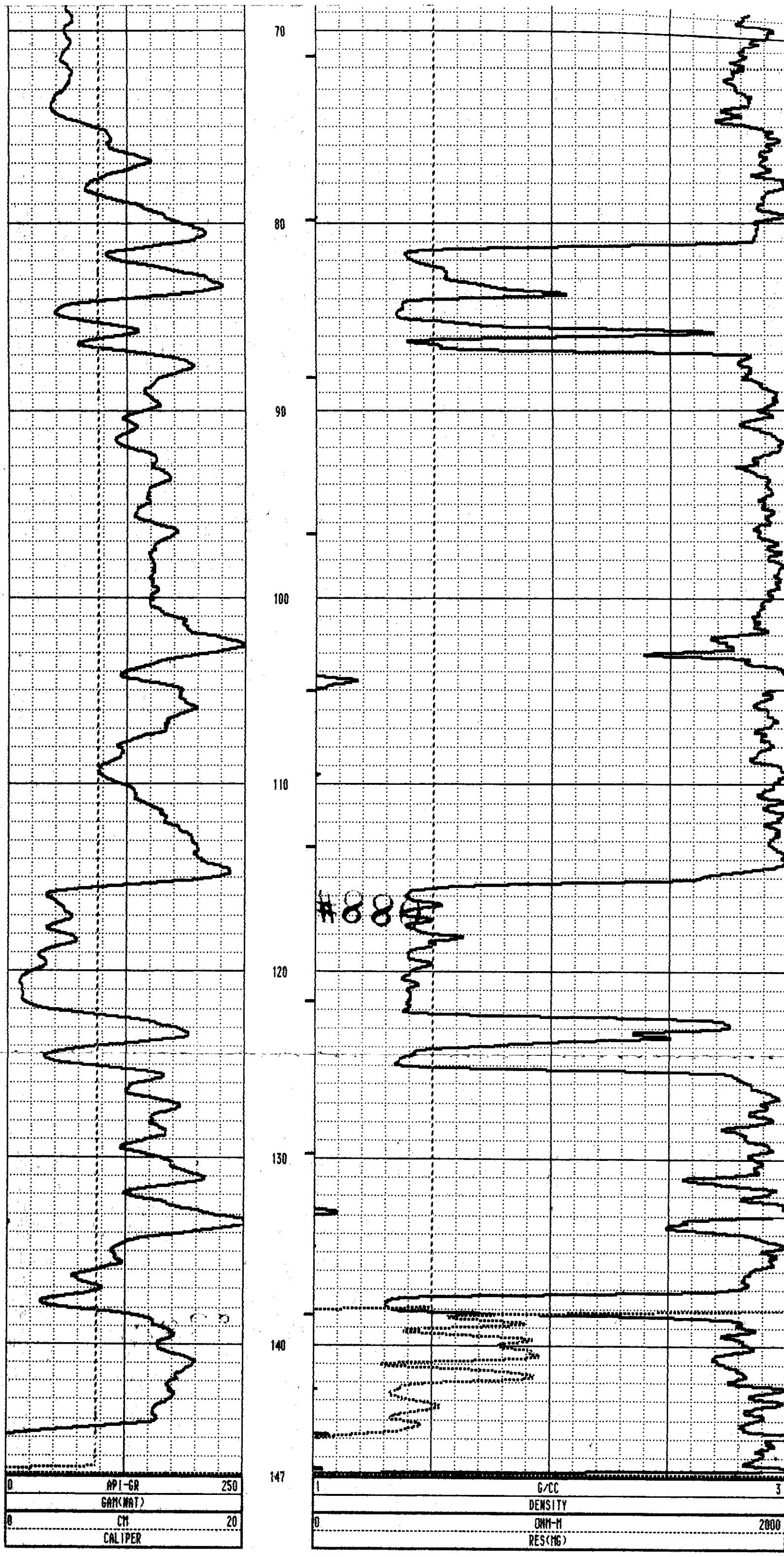
COMPANY	: QUINTETTE COAL LTD.			OTHER SERVICES:	
WELL	: QHD 88005 GAMMA-DENSITY			DEN.NEUT	
LOCATION/FIELD	: BL 21600:SL 26700 TRANSFER W			GAM.RES.	
COUNTY	:			CAL.DEV	
STATE	: BRITISH COLUMBIA				
SECTION	:	TOWNSHIP	:	RANGE	:
DATE	: 09/07/88	PERMANENT DATUM	: 975	ELEVATIONS	
DEPTH DRILLER	: 141.43 M	ELEV. PERM. DATUM	: 975	KB	: 975
LOG BOTTOM	: 147.02	LOG MEASURED FROM	: 975	DF	: 975
LOG TOP	: 0.30	DRL MEASURED FROM	: 975	GL	: 975
CASING DRILLER	: 1.6	LOGGING UNIT	: 8401		
CASING TYPE	: STEEL	FIELD OFFICE	: CALGARY		
CASING THICKNESS	: 0	RECORDED BY	: E.SVEDLUND		
BIT SIZE	: 15.6	BOREHOLE FLUID	: WATER	FILE	: ORIGINAL
MAGNETIC DECL.	: 24.5	RM	: 0	TYPE	: 9030AA
MATRIX DENSITY	: 2.68	RM TEMPERATURE	: 0	LOG	: 5
FLUID DENSITY	: 1.0	MATRIX DELTA T	: 173	PLOT	: QUIN 3
NEUTRON MATRIX	: SANDSTONE	FLUID DELTA T	: 690	THRESH	: 2500

REMARKS :
VERTICAL HOLE

ALL SERVICES PROVIDED SUBJECT TO CGC STANDARD TERMS AND CONDITIONS



#880



TOOL CALIBRATION TOOL = 9030AA SERIAL NUMBER = 404

	CAL-DATE	CAL-TIME	SRCE	SENSOR	RESPONSE	STANDARD
0	07/28/88	13:56:46	0	GAM(NAT)	0.000 CPS	0.000 API-GR
1	07/28/88	13:56:46	0	GAM(NAT)	0.000 CPS	0.000 API-GR
2	07/28/88	14:13:46	0	DENSITY	5615.000 CPS	1.106 G/CC
3	07/28/88	14:13:46	0	DENSITY	2230.500 CPS	2.120 G/CC
4	07/28/88	13:56:46	0	RES(MG)	0.000 CPS	0.000 OHM-M
5	07/28/88	13:56:46	0	RES(MG)	0.000 CPS	0.000 OHM-M
6	07/28/88	15:42:06	0	CALIPER	213.400 CPS	7.600 CM
7	07/28/88	15:42:06	0	CALIPER	1842.500 CPS	17.800 CM
8	07/28/88	13:56:46	0	DENSITYH	0.000 CPS	0.000 G/CC
9	07/28/88	13:56:46	0	DENSITYH	0.000 CPS	0.000 G/CC
10	07/28/88	13:56:46	0	CALIPERL	0.000 CPS	0.000 CM
11	07/28/88	13:56:46	0	CALIPERL	0.000 CPS	0.000 CM

1:200 MARKED — Bottom of Log Sheet

#880 Century

QHD 88005 GAMMA-DENSITY

COMPANY	: QUINTETTE COAL LTD.			OTHER SERVICES:	
WELL	: QHD 88005 GAMMA-DENSITY			DEN.NEUT	
LOCATION/FIELD	: BL 21600:SL 26700 TRANSFER W			GAM.RES.	
COUNTY	:			CAL.DEV	
STATE	: BRITISH COLUMBIA				
SECTION	:	TOWNSHIP	:	RANGE	:
DATE	: 09/07/88	PERMANENT DATUM	: 975	ELEVATIONS	
DEPTH DRILLER	: 141.43 M	ELEV. PERM. DATUM	: 975	KB	: 975
LOG BOTTOM	: 147.02	LOG MEASURED FROM	: 975	DF	: 975
LOG TOP	: 0.30	DRL MEASURED FROM	: 975	GL	: 975
CASING DRILLER	: 1.6	LOGGING UNIT	: 8401		
CASING TYPE	: STEEL	FIELD OFFICE	: CALGARY		
CASING THICKNESS	: 0	RECORDED BY	: E.SVEDLUND		
BIT SIZE	: 15.6	BOREHOLE FLUID	: WATER	FILE	: ORIGINAL
MAGNETIC DECL.	: 24.5	RM	: 0	TYPE	: 9030AA
MATRIX DENSITY	: 2.68	RM TEMPERATURE	: 0	LOG	: 5
FLUID DENSITY	: 1.0	MATRIX DELTA T	: 173	PLOT	: QUIN 5
NEUTRON MATRIX	: SANDSTONE	FLUID DELTA T	: 690	THRESH	: 2500
REMARKS	:				

VERTICAL HOLE

ALL SERVICES PROVIDED SUBJECT TO CGC STANDARD TERMS AND CONDITIONS

TOOL CALIBRATION TOOL = 9030AA SERIAL NUMBER = 404

	CAL-DATE	CAL-TIME	SRCE	SENSOR	RESPONSE	STANDARD
0	07/28/88	13:56:46	0	GAM(NAT)	0.000 CPS	0.000 API-GR
1	07/28/88	13:56:46	0	GAM(NAT)	0.000 CPS	0.000 API-GR
2	07/28/88	14:13:46	0	DENSITY	5615.000 CPS	1.106 G/CC
3	07/28/88	14:13:46	0	DENSITY	2230.500 CPS	2.120 G/CC
4	07/28/88	13:56:46	0	RES(MG)	0.000 CPS	0.000 OHM-M
5	07/28/88	13:56:46	0	RES(MG)	0.000 CPS	0.000 OHM-M
6	07/28/88	15:42:06	0	CALIPER	213.400 CPS	7.600 CM
7	07/28/88	15:42:06	0	CALIPER	1842.500 CPS	17.800 CM
8	07/28/88	13:56:46	0	DENSITYH	0.000 CPS	0.000 G/CC
9	07/28/88	13:56:46	0	DENSITYH	0.000 CPS	0.000 G/CC
10	07/28/88	13:56:46	0	CALIPERL	0.000 CPS	0.000 CM
11	07/28/88	13:56:46	0	CALIPERL	0.000 CPS	0.000 CM

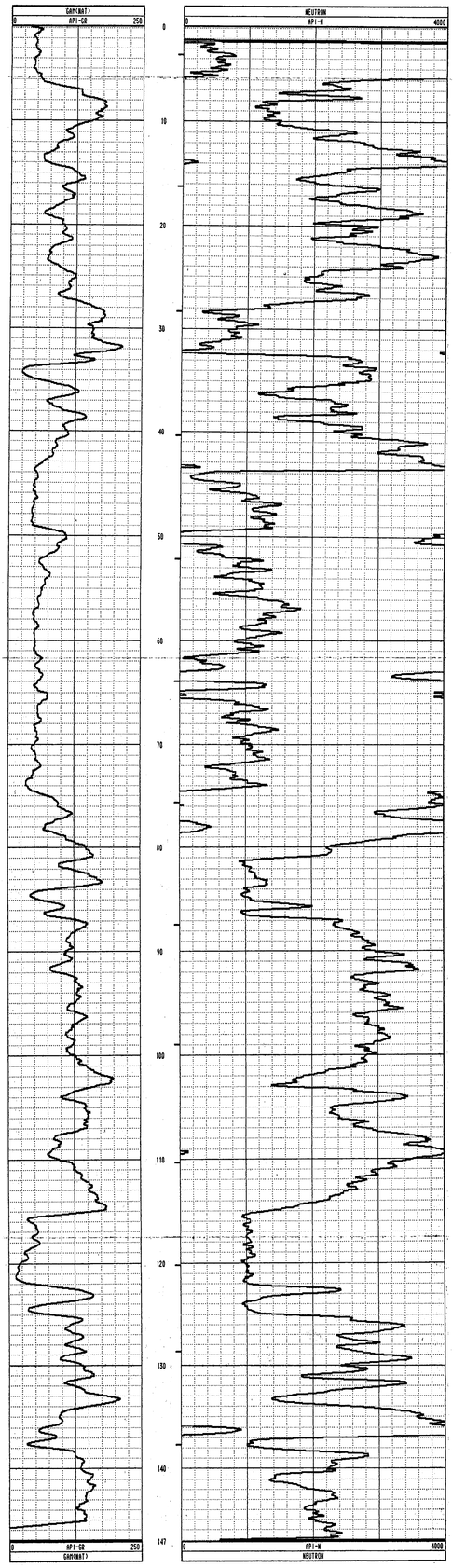
#880

Century

QHD 88005 GAMMA-NEUTRON

COMPANY	: QUINTETTE COAL LTD.			OTHER SERVICES:	
WELL	: QHD 88005 GAMMA-NEUTRON			DEN.NEUT	
LOCATION/FIELD	: BL 21600:SL 26700 TRANSFER W			GAM.RES.	
COUNTY	:			CAL.DEV	
STATE	: BRITISH COLUMBIA				
SECTION	:	TOWNSHIP	:	RANGE	:
DATE	: 09/07/88	PERMANENT DATUM	: 975	ELEVATIONS	
DEPTH DRILLER	: 141.43 M	ELEV. PERM. DATUM:	975	KB	: 975
LOG BOTTOM	: 147.06	LOG MEASURED FROM:	975	DF	: 975
LOG TOP	: 0.92	DRL MEASURED FROM:	975	GL	: 975
CASING DRILLER	: 1.6	LOGGING UNIT	: 8401		
CASING TYPE	: STEEL	FIELD OFFICE	: CALGARY		
CASING THICKNESS:	0	RECORDED BY	: E.SVEDLUND		
BIT SIZE	: 15.6	BOREHOLE FLUID	: WATER	FILE	: ORIGINAL
MAGNETIC DECL.	: 24.5	RM	: 0	TYPE	: 9055A
MATRIX DENSITY	: 2.68	RM TEMPERATURE	: 0	LOG	: 4
FLUID DENSITY	: 1.0	MATRIX DELTA T	: 173	PLOT	: QUIN 2
NEUTRON MATRIX	: SANDSTONE	FLUID DELTA T	: 690	THRESH:	2500
REMARKS	:				
VERTICAL HOLE					

ALL SERVICES PROVIDED SUBJECT TO CGC STANDARD TERMS AND CONDITIONS



TOOL CALIBRATION TOOL = 9055A SERIAL NUMBER = 46

	CAL-DATE	CAL-TIME	SRCE	SENSOR	RESPONSE	STANDARD
0	07/28/88	15:07:18	0	GAM(NAT)	0.000 CPS	0.000 API-GR
1	07/28/88	15:07:18	0	GAM(NAT)	0.000 CPS	0.000 API-GR
2	07/28/88	15:20:10	0	POROSITY	0.000 CPS	190.000 CPS
3	07/28/88	15:07:18	0	RES	0.000 CPS	0.000 OHM
4	07/28/88	15:07:18	0	RES	0.000 CPS	0.000 OHM
5	07/28/88	15:07:18	0	SP	0.000 CPS	0.000 MV
6	07/28/88	15:07:18	0	SP	0.000 CPS	0.000 MV
7	07/28/88	15:19:56	0	NEUTRON	0.000 CPS	0.000 API-N
8	07/28/88	15:19:56	0	NEUTRON	190.000 CPS	271.000 API-N

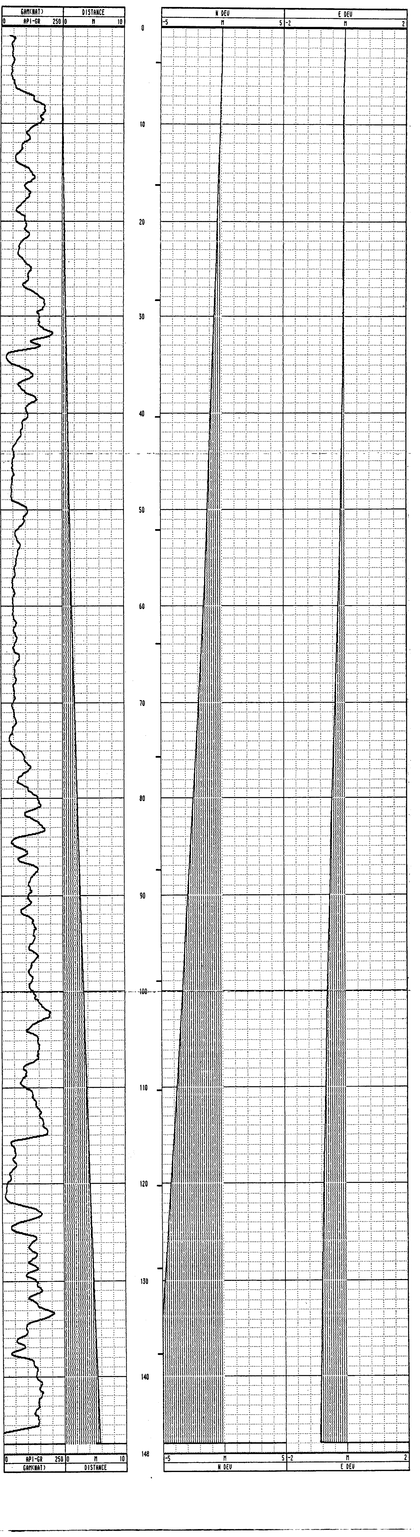
#880

Century

QHD 88005 DEVIATION

COMPANY	: QUINTETTE COAL LTD.			OTHER SERVICES:	
WELL	: QHD 88005 DEVIATION			DEN.NEUT	
LOCATION/FIELD	: BL 21600ISL 26700 TRANSFER W			GAM.RES.	
COUNTY	:			CAL.DEV	
STATE	: BRITISH COLUMBIA				
SECTION	:	TOWNSHIP	:	RANGE :	
DATE	: 09/07/88	PERMANENT DATUM	: 975	ELEVATIONS	
DEPTH DRILLER	: 141.43 M	ELEV. PERM. DATUM: 975		KB : 975	
LOG BOTTOM	: 147.06	LOG MEASURED FROM: 975		DF : 975	
LOG TOP	: 0.92	DRL MEASURED FROM: 975		GL : 975	
CASING DRILLER	: 1.6	LOGGING UNIT	: 8401		
CASING TYPE	: STEEL	FIELD OFFICE	: CALGARY		
CASING THICKNESS: 0		RECORDED BY	: E.SUEDLUND		
BIT SIZE	: 15.6	BOREHOLE FLUID	: WATER	FILE : PROCESSED	
MAGNETIC DECL.	: 24.500	RM	: 0	TYPE : 9055A	
MATRIX DENSITY	: 2.68	RM TEMPERATURE	: 0	LOG : 6	
FLUID DENSITY	: 1.0	MATRIX DELTA T	: 173	PLOT : QUIN 6	
NEUTRON MATRIX	: SANDSTONE	FLUID DELTA T	: 690	THRESH: 2500	
REMARKS	:				
VERTICAL HOLE					

ALL SERVICES PROVIDED SUBJECT TO CGC STANDARD TERMS AND CONDITIONS



* * * * * * * * * * COMPU-LOG II - VERTICAL DEVIATION * * * * * * * * * *

CLIENT	: QUINTETTE COAL LTD.	HOLE ID.	: QHD 88005 GAM
FIELD OFFICE	: CALGARY	DATE OF LOG	: 09/08/88
DATA FROM	:	PROBE	: 9055A , 46
MAG. DECL.	: 24.500	DEPTH UNITS	: METER LOG 6

Table Depth	True Depth	North Dev.	East Dev.	Distance	Azimuth	SANG	SANGB
0.0	0.00	0.00	0.00	0.0	0.0	0.0	0.0
5.0	5.00	-.02	-.02	0.0	223.1	0.9	186.1
10.0	10.00	-.11	-.03	0.1	196.8	1.0	222.9
15.0	15.00	-.24	-.01	0.2	183.0	1.5	172.7
20.0	19.99	-.36	-.03	0.4	184.4	0.9	186.7
25.0	24.99	-.46	-.04	0.5	185.5	1.6	200.0
30.0	29.99	-.62	-.04	0.6	183.7	1.8	193.0
35.0	34.99	-.78	-.05	0.8	183.7	1.9	187.4
40.0	39.99	-.91	-.08	0.9	184.9	1.6	195.9
45.0	44.98	-1.04	-.10	1.0	185.7	1.5	190.4
50.0	49.98	-1.18	-.13	1.2	186.4	1.6	191.6
55.0	54.98	-1.32	-.17	1.3	187.2	1.8	195.5
60.0	59.98	-1.50	-.22	1.5	188.2	2.3	197.4
65.0	64.97	-1.70	-.27	1.7	189.0	2.3	198.1
70.0	69.97	-1.91	-.32	1.9	189.5	2.6	194.1
75.0	74.96	-2.13	-.37	2.2	189.9	2.6	191.6
80.0	79.96	-2.36	-.42	2.4	190.2	2.6	192.5
85.0	84.95	-2.59	-.47	2.6	190.2	2.6	185.2
90.0	89.95	-2.82	-.50	2.9	190.0	2.6	191.9
95.0	94.94	-3.04	-.54	3.1	190.1	2.7	193.2
100.0	99.94	-3.27	-.59	3.3	190.3	2.6	194.1
105.0	104.93	-3.50	-.62	3.5	190.1	2.8	183.8
110.0	109.93	-3.74	-.65	3.8	189.9	2.8	189.6
115.0	114.92	-3.99	-.69	4.0	189.8	2.9	186.9
120.0	119.91	-4.24	-.72	4.3	189.6	3.0	185.1
125.0	124.91	-4.50	-.75	4.6	189.5	3.1	183.2
130.0	129.90	-4.77	-.78	4.8	189.2	3.1	183.8
135.0	134.89	-5.04	-.80	5.1	189.1	3.1	187.5
140.0	139.89	-5.31	-.84	5.4	188.9	3.3	184.4
145.0	144.88	-5.59	-.86	5.6	188.8	3.2	185.5
147.1	146.94	-5.70	-.88	5.8	188.8	0.0	0.0

#880 Century

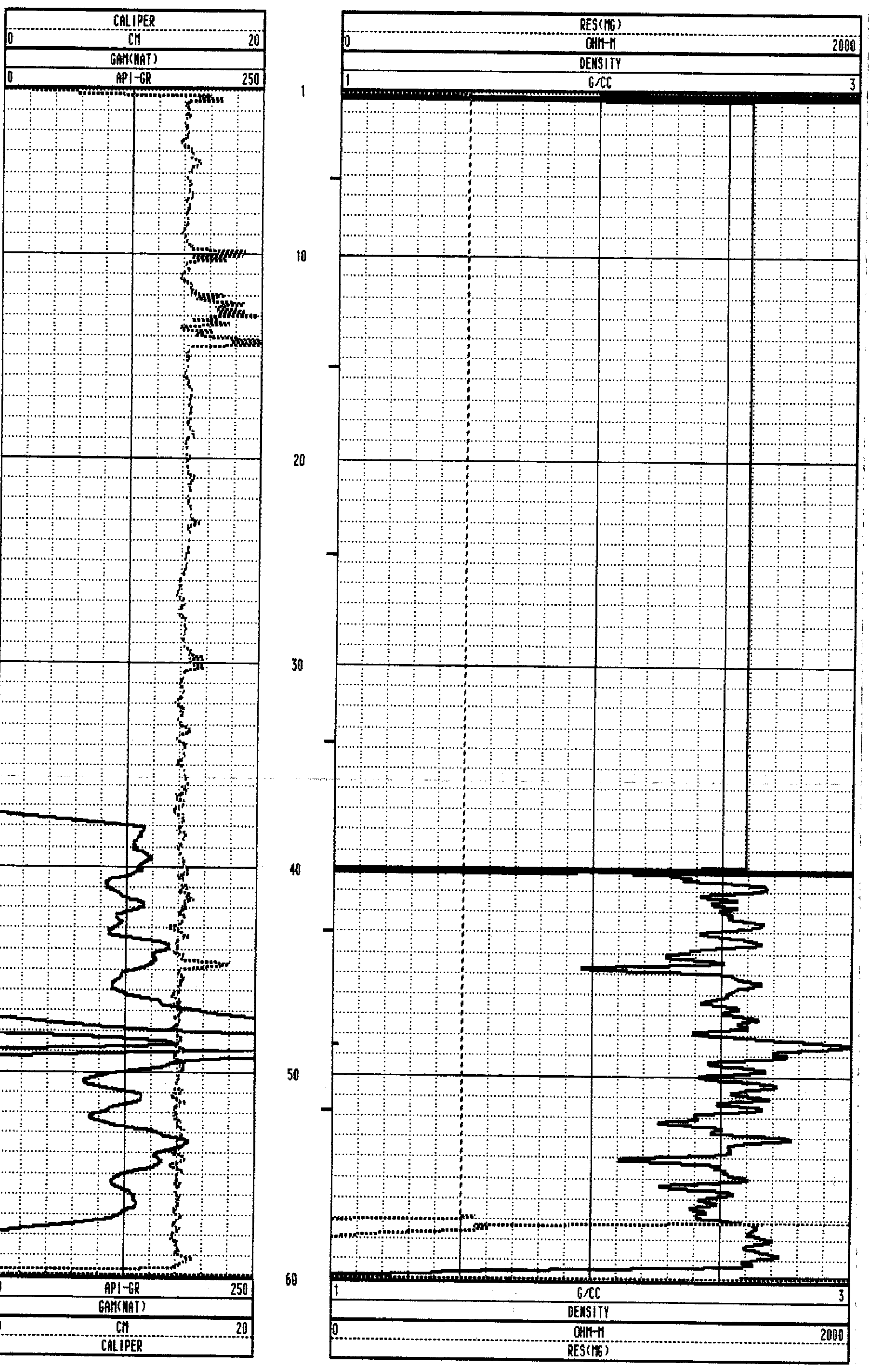
QHR 88005 GAMMA-DENSITY

COMPANY	: QUINTETTE COAL LTD.				
WELL	: QHR 88005 GAMMA-DENSITY				
LOCATION/FIELD	: BL 20050;SL 28900/TRANSFER W				
COUNTY	:				
STATE	: BRITISH COLUMBIA				
SECTION	:	TOWNSHIP	:	RANGE	:
DATE	: 08/10/88	PERMANENT DATUM	: 1450	ELEVATIONS	
DEPTH DRILLER	: 151.5 M	ELEV. PERM. DATUM	: 1450	KB	: 1450
LOG BOTTOM	: 60.04	LOG MEASURED FROM	: 1450	DF	: 1450
LOG TOP	: 2.04	DRL MEASURED FROM	: 1450	GL	: 1450
CASING DRILLER	: 2	LOGGING UNIT	: 8401		
CASING TYPE	: PVC	FIELD OFFICE	: CALGARY		
CASING THICKNESS	: 0	RECORDED BY	: W. STROEBEL		
BIT SIZE	: 15.6	BOREHOLE FLUID	: WATER	FILE	: ORIGINAL
MAGNETIC DECL.	: 24.5	RM	: 0	TYPE	: 9030AA
MATRIX DENSITY	: 2.68	RM TEMPERATURE	: 0	LOG	: 4
FLUID DENSITY	: 1.0	MATRIX DELTA T	: 173	PLOT	: QUIN 3
NEUTRON MATRIX	: SANDSTONE	FLUID DELTA T	: 690	THRESH	: 2500
REMARKS	:				

OTHER SERVICES:
DEN.NEUT
GAM.RES.
CAL.DEV

ANGLE HOLE AZIMUTH 217 INCLINATION 60

ALL SERVICES PROVIDED SUBJECT TO CGC STANDARD TERMS AND CONDITIONS



TOOL CALIBRATION TOOL = 9030AA SERIAL NUMBER = 404

	CAL-DATE	CAL-TIME	SRCE	SENSOR	RESPONSE	STANDARD
0	07/28/88	13:56:46	0	GAM(NAT)	0.000 CPS	0.000 API-GR
1	07/28/88	13:56:46	0	GAM(NAT)	0.000 CPS	0.000 API-GR
2	07/28/88	14:13:46	0	DENSITY	5615.000 CPS	1.106 G/CC
3	07/28/88	14:13:46	0	DENSITY	2230.500 CPS	2.120 G/CC
4	07/28/88	13:56:46	0	RES(MG)	0.000 CPS	0.000 OHM-M
5	07/28/88	13:56:46	0	RES(MG)	0.000 CPS	0.000 OHM-M
6	07/28/88	15:42:06	0	CALIPER	213.400 CPS	7.600 CM
7	07/28/88	15:42:06	0	CALIPER	1842.500 CPS	17.800 CM
8	07/28/88	13:56:46	0	DENSITYH	0.000 CPS	0.000 G/CC
9	07/28/88	13:56:46	0	DENSITYH	0.000 CPS	0.000 G/CC
10	07/28/88	13:56:46	0	CALIPERL	0.000 CPS	0.000 CM
11	07/28/88	13:56:46	0	CALIPERL	0.000 CPS	0.000 CM

#880 Century

QHR 88005 GAMMA-NEUTRON

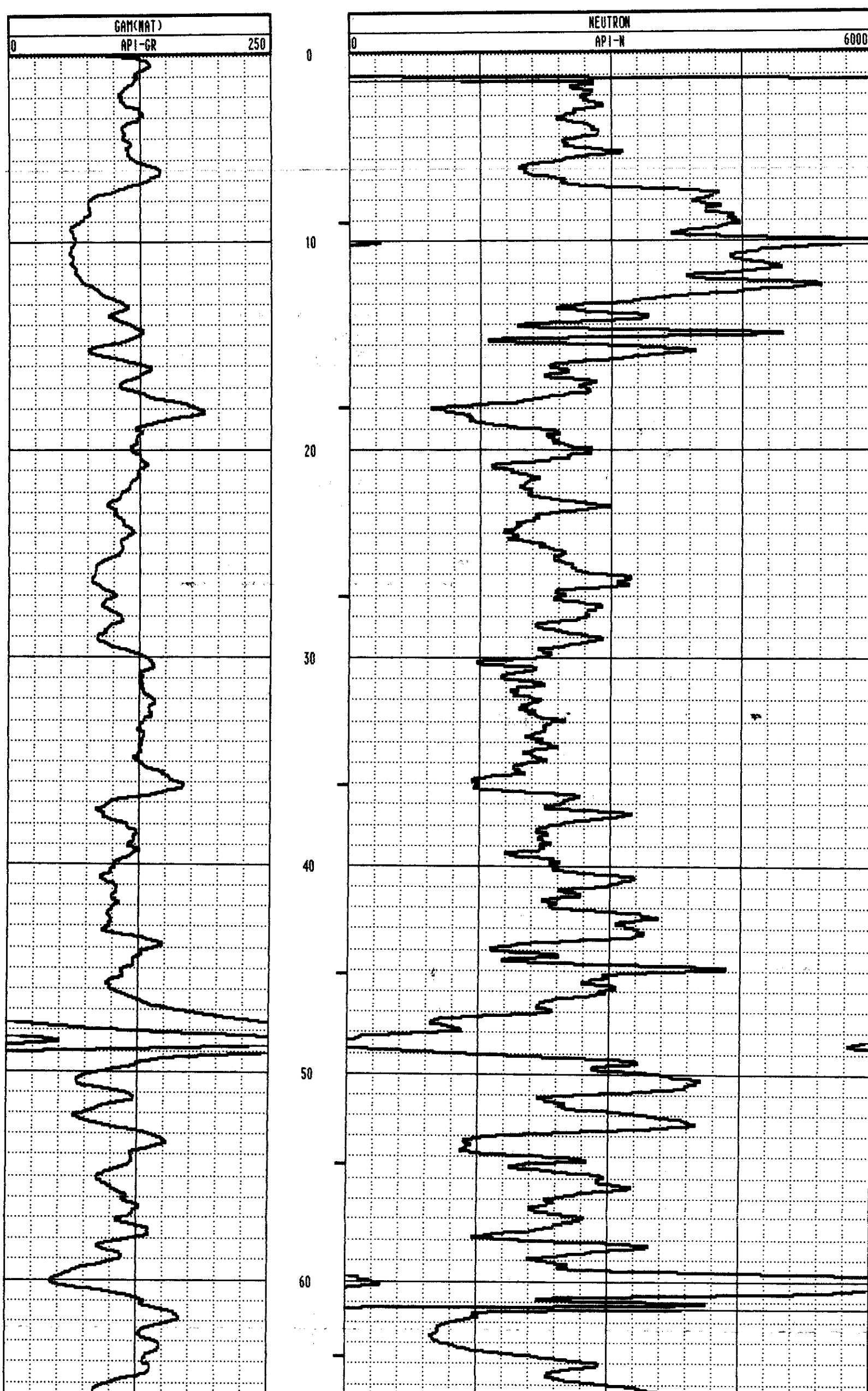
COMPANY	: QUINTETTE COAL LTD.
WELL	: QHR 88005 GAMMA-NEUTRON
LOCATION/FIELD	: BL 20050:SL 28900/TRANSFER W
COUNTY	:
STATE	: BRITISH COLUMBIA
SECTION	: TOWNSHIP : RANGE :

OTHER SERVICES:
DEN.NEUT
GAM.RES.
CAL.DEV

DATE	: 08/09/88	PERMANENT DATUM	: 1450	ELEVATIONS	
DEPTH DRILLER	: 151.5 M	ELEV. PERM. DATUM	: 1450	KB	: 1450
LOG BOTTOM	: 91.90	LOG MEASURED FROM	: 1450	DF	: 1450
LOG TOP	: 0.84	DRL MEASURED FROM	: 1450	GL	: 1450
CASING DRILLER	: 2	LOGGING UNIT	: 8401		
CASING TYPE	: PVC	FIELD OFFICE	: CALGARY		
CASING THICKNESS	: 0	RECORDED BY	: W. STROEBEL		
BIT SIZE	: 15.6	BOREHOLE FLUID	: WATER	FILE	: ORIGINAL
MAGNETIC DECL.	: 24.5	RM	: 0	TYPE	: 9055A
MATRIX DENSITY	: 2.68	RM TEMPERATURE	: 0	LOG	: 4
FLUID DENSITY	: 1.0	MATRIX DELTA T	: 173	PLOT	: QUIN 2
NEUTRON MATRIX	: SANDSTONE	FLUID DELTA T	: 690	THRESH	: 2500
REMARKS	:				

ANGLE HOLE AZIMUTH 217 INCLINATION 60

ALL SERVICES PROVIDED SUBJECT TO CGC STANDARD TERMS AND CONDITIONS



TOOL CALIBRATION TOOL = 9055A SERIAL NUMBER = 46

	CAL-DATE	CAL-TIME	SRCE	SENSOR	RESPONSE	STANDARD
0	07/28/88	15:07:18	0	GAM(NAT)	0.000 CPS	0.000 API-GR
1	07/28/88	15:07:18	0	GAM(NAT)	0.000 CPS	0.000 API-GR
2	07/28/88	15:20:10	0	POROSITY	0.000 CPS	190.000 CPS
3	07/28/88	15:07:18	0	RES	0.000 CPS	0.000 OHM
4	07/28/88	15:07:18	0	RES	0.000 CPS	0.000 OHM
5	07/28/88	15:07:18	0	SP	0.000 CPS	0.000 MV
6	07/28/88	15:07:18	0	SP	0.000 CPS	0.000 MV
7	07/28/88	15:19:56	0	NEUTRON	0.000 CPS	0.000 API-N
8	07/28/88	15:19:56	0	NEUTRON	190.000 CPS	271.000 API-N

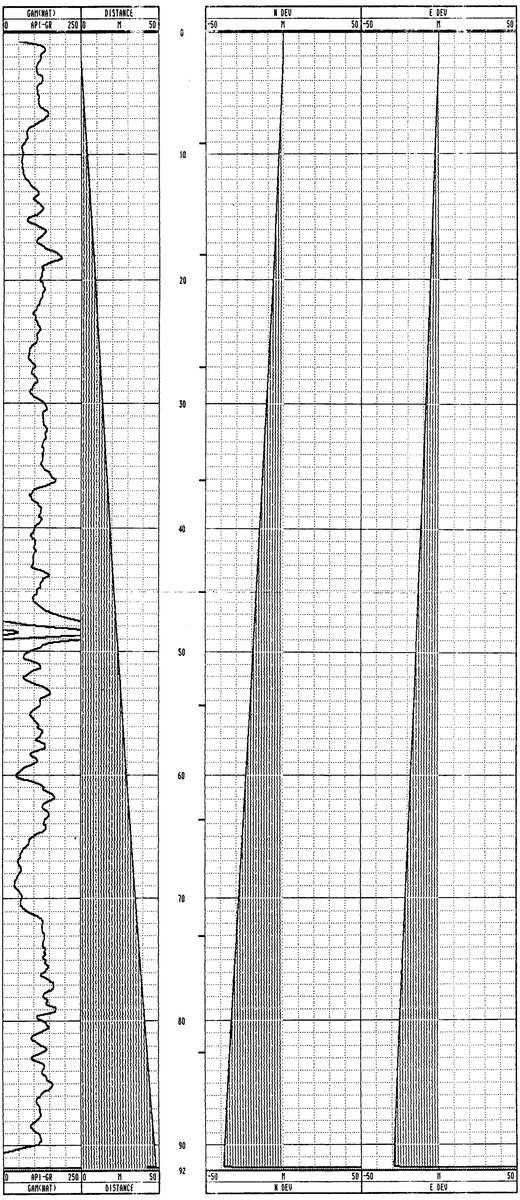
Century #880

QHR 88005 DEVIATION

COMPANY	: QUINTETTE COAL LTD.			OTHER SERVICES:	
WELL	: QHR 88005 DEVIATION			DEN.NEUT	
LOCATION/FIELD	: BL 20050:SL 28900/TRANSFER W			GAM.RES.	
COUNTY	:			CAL.DEV	
STATE	: BRITISH COLUMBIA				
SECTION	:	TOWNSHIP	:	RANGE	:
DATE	: 08/11/88	PERMANENT DATUM	: 1450	ELEVATIONS	
DEPTH DRILLER	: 151.5 M	ELEV. PERM. DATUM:	1450	KB	: 1450
LOG BOTTOM	: 91.90	LOG MEASURED FROM:	1450	DF	: 1450
LOG TOP	: 0.84	DRL MEASURED FROM:	1450	GL	: 1450
CASING DRILLER	: 2	LOGGING UNIT	: 8401		
CASING TYPE	: PVC	FIELD OFFICE	: CALGARY		
CASING THICKNESS	: 0	RECORDED BY	: W. STROEBEL		
BIT SIZE	: 15.6	BOREHOLE FLUID	: WATER	FILE	: PROCESSED
MAGNETIC DECL.	: 24.500	RM	: 0	TYPE	: 9055A
MATRIX DENSITY	: 2.68	RM TEMPERATURE	: 0	LOG	: 3
FLUID DENSITY	: 1.0	MATRIX DELTA T	: 173	PLOT	: QUIN 6
NEUTRON MATRIX	: SANDSTONE	FLUID DELTA T	: 690	THRESH:	2500
REMARKS	:				

ANGLE HOLE AZIMUTH 217 INCLINATION 60

ALL SERVICES PROVIDED SUBJECT TO CGC STANDARD TERMS AND CONDITIONS



* * * * * * * * * COMPU-LOG II - VERTICAL DEVIATION * * * * * * * * * *

CLIENT	: QUINTETTE COAL LTD.	HOLE ID.	: QHR 88005 GAM
FIELD OFFICE	: CALGARY	DATE OF LOG	: 08/11/88
DATA FROM	:	PROBE	: 9055A , 46
MAG. DECL.	: 24.500	DEPTH UNITS	: METER LOG 3

ible Depth	True Depth	North Dev.	East Dev.	Distance	Azimuth	SANG	DANGB
0.0	0.00	0.00	0.00	0.0	0.0	0.0	0.0
5.0	4.65	-.97	-.89	1.3	222.5	28.8	204.9
10.0	8.94	-2.85	-2.56	3.8	222.0	30.0	219.9
15.0	13.24	-4.82	-4.11	6.3	220.4	30.6	227.9
20.0	17.54	-6.74	-5.59	8.8	219.7	29.8	214.2
25.0	21.88	-8.79	-6.94	11.2	218.3	28.3	212.9
30.0	26.22	-10.85	-8.31	13.7	217.4	30.1	216.9
35.0	30.49	-12.92	-9.82	16.2	217.2	31.8	214.6
40.0	34.73	-14.97	-11.38	18.8	217.3	32.4	240.6
45.0	38.98	-16.97	-12.88	21.3	217.2	31.9	215.9
50.0	43.21	-19.12	-14.41	23.9	217.0	33.0	215.2
55.0	47.39	-21.32	-16.00	26.7	216.9	33.8	209.7
60.0	51.52	-23.55	-17.71	29.5	216.9	35.2	212.1
65.0	55.69	-25.87	-19.40	32.3	216.9	36.3	230.8
70.0	59.65	-28.21	-21.14	35.3	216.8	35.9	218.1
75.0	63.68	-30.49	-22.99	38.2	217.0	37.7	214.9
80.0	67.64	-32.93	-24.79	41.2	217.0	37.0	218.0
85.0	71.60	-35.23	-26.57	44.1	217.0	37.8	233.9
90.0	75.56	-37.53	-28.32	47.0	217.0	40.7	192.1
91.9	77.08	-38.34	-28.92	48.0	217.0	0.0	0.0

088#

1230 (2 passes)
1330 (passes at 9m + 4m)

CGC

#880 Century

QHD 88006 GAMMA-DENSITY

COMPANY	: GULFINTETE CDNL LTD.		
WELL	: UHD 88006 GAMMA-DENSITY		
LOCATION-FIELD	: 15, 21+08E/3E, 27+08 TRANSFER W		
COUNTY	:		
STATE	: BRITISH COLUMBIA		
SECTION	:	TOWNSHIP :	RANGE :

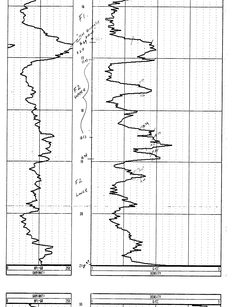
OTHER SERVICES:
BCM-NEUT
BCM-DEN
CAL-DEN

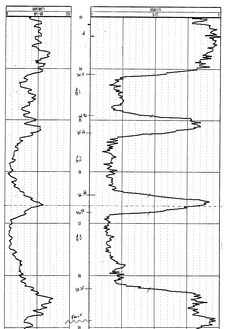
DATE	: 05-12-88	PERMANENT DATUM : 1100	ELEVATIONS
DEPTH DRILLER	: 22.0 M	LOG. MEAS. DATUM: 1100	KB : 1100
LOG BOTTOM	: 22.36	LOG MEASURED FROM: 1100	DF : 1100
LOG TOP	: 0.14	DRL MEASURED FROM:	GL : 1100
CASING DRILLER	: 0	LOGGING UNIT	: 1001
CASING LOGGER	: 0 STEEL	LOGGING UNIT	: CALGARY
CASING THICKNESS	: 0	RECORDED BY	: C.SHEELWOO

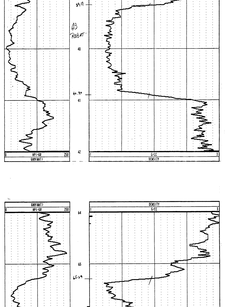
BIT SIZE	: 15.6	BOREHOLE FLUID	: WATER	FILE	: ORIGINAL
MAGNETIC DECL.	: 24.500	PH	: 0	TYPE	: 900884
MATRIX DENSITY	: 2.68	RM TEMPERATURE	: 0	LOG	: M
FLUID DENSITY	: 1.00	MATRIX DELTA T	: 155	PLOT	: 5018 S
NEUTRON MATRIX	: SANDSTONE	FLUID DELTA T	: 590	TIMEINC	: 2500

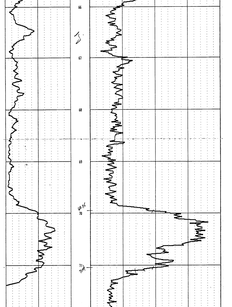
SERVICE MODE:
PHASE HOLE WIDTH BY INDICATION KB

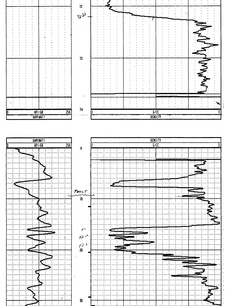
ALL SERVICES PERFORMED SUBJECT TO CGC STANDARD TERMS AND CONDITIONS

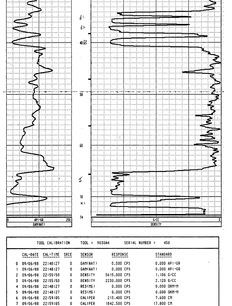












CAL-MNEM	CAL-TYPE	UNIT	REMARK	RESPONSE	STANDARD
1 09-06-88 22:40:27	0		GAMMARAY	0.000 CPS	0.000 API-GR
2 09-06-88 22:40:27	0		GAMMARAY	0.000 CPS	0.000 API-GR
3 09-06-88 22:00:58	0		DENSITY	54.15.000 CPS	1.136 G/C
4 09-06-88 22:40:27	0		DENSITY	22.000 CPS	1.136 G/C
5 09-06-88 22:40:27	0		RESERVE	0.000 CPS	0.000 OHM-M
6 09-06-88 22:40:27	0		RESERVE	0.000 CPS	0.000 OHM-M
7 09-06-88 22:00:05	0		CALIPER	215.400 CPS	11.600 CM
8 09-06-88 22:00:05	0		CALIPER	1642.330 CPS	11.600 CM
9 09-06-88 22:40:27	0		NEUTRON	0.000 CPS	0.000 G/C
10 09-06-88 22:40:27	0		NEUTRON	0.000 CPS	0.000 G/C
11 09-06-88 22:40:27	0		CALIPERL	0.000 CPS	0.000 CM
12 09-06-88 22:40:27	0		CALIPERL	0.000 CPS	0.000 CM

TOOL CAL-MNEM'ONIC : TOOL = 900884 SERIAL NUMBER = 450

#880

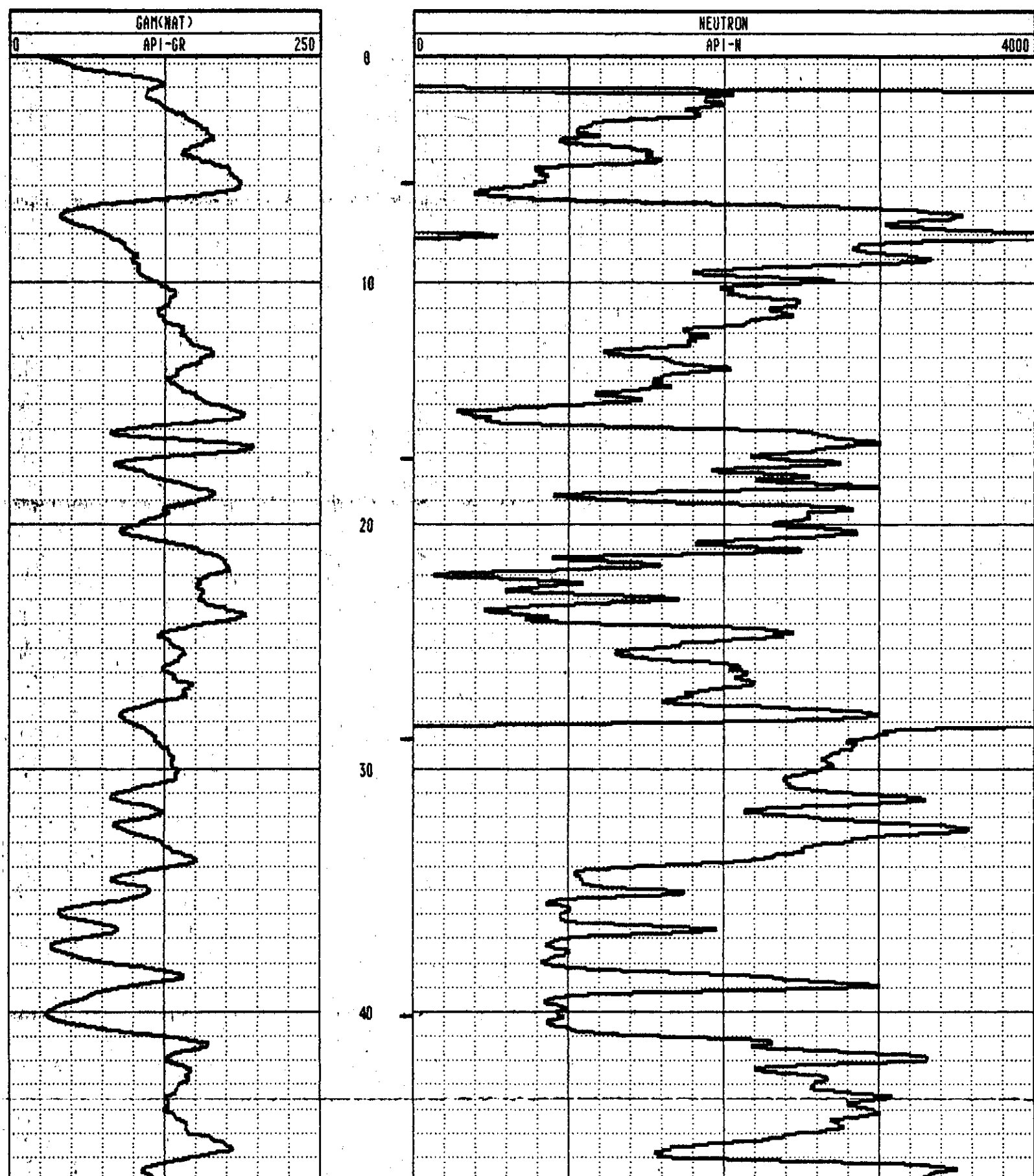
Century

QHD 88006 GAMMA-NEUTRON

COMPANY	: QUINTETTE COAL LTD.			OTHER SERVICES:	
WELL	: QHD 88006 GAMMA-NEUTRON			DEN.NEUT	
LOCATION/FIELD	: BL 20400:SL 27600 TRANSFER W			GAM.RES.	
COUNTY	:			CAL.DEV	
STATE	: BRITISH COLUMBIA				
SECTION	: TOWNSHIP	:	RANGE :		
DATE	: 09/12/88	PERMANENT DATUM	: 1180	ELEVATIONS	
DEPTH DRILLER	: 72.5 M	ELEV. PERM. DATUM	: 1180	KB	: 1180
LOG BOTTOM	: 74.02	LOG MEASURED FROM	: 1180	DF	: 1180
LOG TOP	: 0.78	DRL MEASURED FROM	: 1180	GL	: 1180
CASING DRILLER	: 0	LOGGING UNIT	: 8401		
CASING TYPE	: STEEL	FIELD OFFICE	: CALGARY		
CASING THICKNESS	: 0	RECORDED BY	: E.SVEDLUND		
BIT SIZE	: 15.6	BOREHOLE FLUID	: WATER	FILE	: ORIGINAL
MAGNETIC DECL.	: 24.500	RM	: 0	TYPE	: 9055A
MATRIX DENSITY	: 2.68	RM TEMPERATURE	: 0	LOG	: 3
FLUID DENSITY	: 1.0	MATRIX DELTA T	: 173	PLOT	: QUIN 2
NEUTRON MATRIX	: SANDSTONE	FLUID DELTA T	: 690	THRESH	: 2500

REMARKS :
ANGLE HOLE AZIMUTH 37 INCLINATION 60

ALL SERVICES PROVIDED SUBJECT TO CGC STANDARD TERMS AND CONDITIONS



TOOL CALIBRATION TOOL = 9055A SERIAL NUMBER = 46

	CAL-DATE	CAL-TIME	SRCE	SENSOR	RESPONSE	STANDARD
0	07/28/88	15:07:18	0	GAM(NAT)	0.000 CPS	0.000 API-GR
1	07/28/88	15:07:18	0	GAM(NAT)	0.000 CPS	0.000 API-GR
2	07/28/88	15:20:10	0	POROSITY	0.000 CPS	190.000 CPS
3	07/28/88	15:07:18	0	RES	0.000 CPS	0.000 OHM
4	07/28/88	15:07:18	0	RES	0.000 CPS	0.000 OHM
5	07/28/88	15:07:18	0	SP	0.000 CPS	0.000 MV
6	07/28/88	15:07:18	0	SP	0.000 CPS	0.000 MV
7	07/28/88	15:19:56	0	NEUTRON	0.000 CPS	0.000 API-N
8	07/28/88	15:19:56	0	NEUTRON	190.000 CPS	271.000 API-N

#880

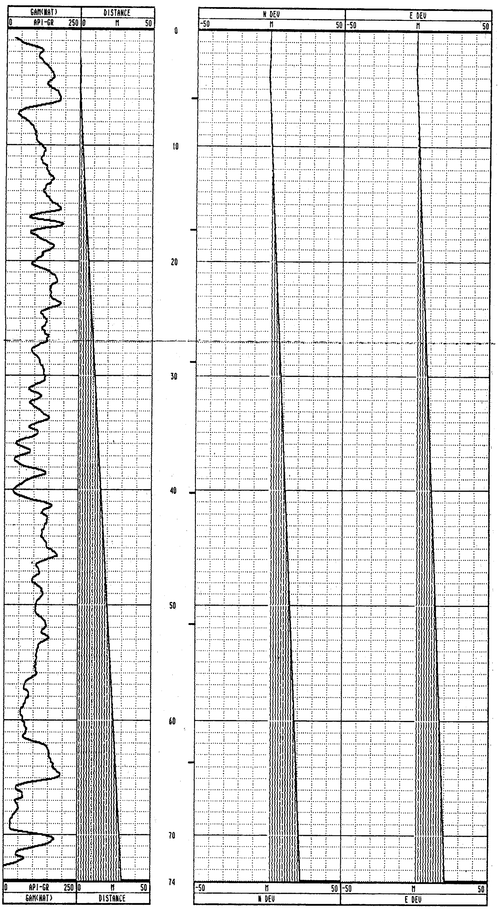
Century

QHD 88006 DEVIATION

COMPANY	: QUINTETTE COAL LTD.			OTHER SERVICES:	
WELL	: QHD 88006 DEVIATION			DEN.NEUT	
LOCATION/FIELD	: BL 20400:SL 27600 TRANSFER W			GAM.RES.	
COUNTY	:			CAL.DEV	
STATE	: BRITISH COLUMBIA				
SECTION	:	TOWNSHIP	:	RANGE	:
DATE	: 09/12/88	PERMANENT DATUM	: 1180	ELEVATIONS	
DEPTH DRILLER	: 72.5 M	ELEV. PERM. DATUM:	1180	KB	: 1180
LOG BOTTOM	: 74.02	LOG MEASURED FROM:	1180	DF	: 1180
LOG TOP	: 0.78	DRL MEASURED FROM:	1180	GL	: 1180
CASING DRILLER	: 0	LOGGING UNIT	: 8401		
CASING TYPE	: STEEL	FIELD OFFICE	: CALGARY		
CASING THICKNESS:	0	RECORDED BY	: E.SVEDLUND		
BIT SIZE	: 15.6	BOREHOLE FLUID	: WATER	FILE	: PROCESSED
MAGNETIC DECL.	: 24.500	RM	: 0	TYPE	: 9055A
MATRIX DENSITY	: 2.68	RM TEMPERATURE	: 0	LOG	: 6
FLUID DENSITY	: 1.0	MATRIX DELTA T	: 173	PLOT	: QUIN 6
NEUTRON MATRIX	: SANDSTONE	FLUID DELTA T	: 690	THRESH:	2500
REMARKS	:				

ANGLE HOLE AZIMUTH 37 INCLINATION 60

ALL SERVICES PROVIDED SUBJECT TO CGC STANDARD TERMS AND CONDITIONS



* * * * * * * * * * COMPU-LOG II - VERTICAL DEVIATION * * * * * * * * * *

CLIENT	: QUINTETTE COAL LTD.	HOLE ID.	: QHD 88006 GAM
FIELD OFFICE	: CALGARY	DATE OF LOG	: 09/12/88
DATA FROM	:	PROBE	: 9055A , 46
MAG. DECL.	: 24.500	DEPTH UNITS	: METER LOG 6

able Depth	True Depth	North Dev.	East Dev.	Distance	Azimuth	SANG	SANGB
0.0	0.00	0.00	0.00	0.0	0.0	0.0	0.0
5.0	4.70	-.30	0.22	0.4	143.4	26.7	43.9
10.0	9.16	1.30	1.81	2.2	54.3	26.9	42.0
15.0	13.62	2.96	3.34	4.5	48.5	26.8	42.1
20.0	18.09	4.61	4.85	6.7	46.5	26.6	42.3
25.0	22.56	6.27	6.35	8.9	45.4	28.0	40.3
30.0	27.04	7.91	7.85	11.1	44.8	26.4	43.6
35.0	31.52	9.56	9.34	13.4	44.3	25.7	43.6
40.0	36.00	11.20	10.83	15.6	44.0	26.2	39.4
45.0	40.48	12.85	12.30	17.8	43.8	26.5	40.8
50.0	44.97	14.50	13.78	20.0	43.5	26.3	41.1
55.0	49.45	16.15	15.25	22.2	43.4	26.2	42.3
60.0	53.94	17.79	16.71	24.4	43.2	26.0	42.3
65.0	58.43	19.43	18.18	26.6	43.1	26.0	41.5
70.0	62.92	21.08	19.63	28.8	43.0	26.2	40.5
74.0	66.54	22.39	20.75	30.5	42.8	0.0	0.0
75.0	0.00	0.00	0.00	0.0	0.0	0.0	0.0

#880

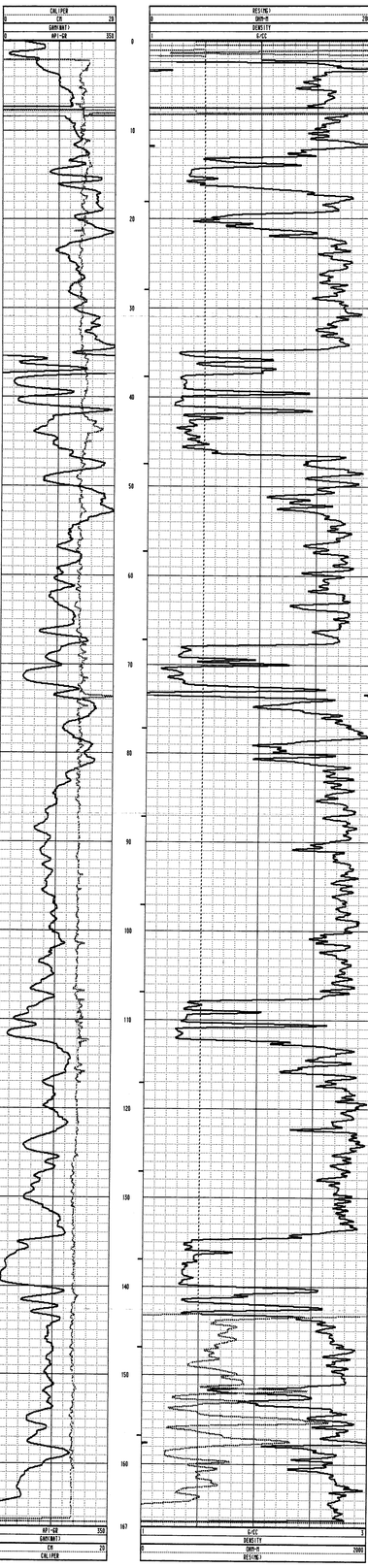
Century

QHR 88006 GAMMA-DENSITY

COMPANY	: QUINTETTE COAL LTD.			OTHER SERVICES:	
WELL	: QHR 88006 GAMMA-DENSITY			GAM,DEN,	
LOCATION/FIELD	: BL 20000:SL 29500 TRANSFER W			NEUT,RES	
COUNTY	:			CAL,DEV	
STATE	: BRITISH COLUMBIA				
SECTION	:	TOWNSHIP	:	RANGE :	
DATE	: 08/23/88	PERMANENT DATUM	: 1550	ELEVATIONS	
DEPTH DRILLER	: 169 M	ELEV. PERM. DATUM:	1550	KB	: 1550
LOG BOTTOM	: 166.60	LOG MEASURED FROM:	1550	DF	: 1550
LOG TOP	: 0.12	DRL MEASURED FROM:	1550	GL	: 1550
CASING DRILLER	: 4	LOGGING UNIT	: 8401		
CASING TYPE	: STEEL	FIELD OFFICE	: CALGARY		
CASING THICKNESS: 0		RECORDED BY	: G. MURPHY		
BIT SIZE	: 15.6	BOREHOLE FLUID	: WATER	FILE	: ORIGINAL
MAGNETIC DECL.	: 24.500	RM	: 0	TYPE	: 9030AA
MATRIX DENSITY	: 2.68	RM TEMPERATURE	: 0	LOG	: 0
FLUID DENSITY	: 1.0	MATRIX DELTA T	: 173	PLOT	: QUIN 3
NEUTRON MATRIX	: SANDSTONE	FLUID DELTA T	: 690	THRESH: 2500	
REMARKS	:				

ANGLE HOLE AZIMUTH 217 INCLINATION 60

ALL SERVICES PROVIDED SUBJECT TO CGC STANDARD TERMS AND CONDITIONS



TOOL CALIBRATION		TOOL = 9030AA		SERIAL NUMBER = 404
	CAL-DATE CAL-TIME SRCE	SENSOR	RESPONSE	STANDARD
0	07/28/88 13:56:46 0	GAMMA(T)	0.000 CPS	0.000 API-GR
1	07/28/88 13:56:46 0	GAMMA(T)	0.000 CPS	0.000 API-GR
2	07/28/88 14:13:46 0	DENSITY	5615.000 CPS	1.106 G/CC
3	07/28/88 14:13:46 0	DENSITY	2230.500 CPS	2.120 G/CC
4	07/28/88 13:56:46 0	RES(M)	0.000 CPS	0.000 OHM-M
5	07/28/88 13:56:46 0	RES(M)	0.000 CPS	0.000 OHM-M
6	07/28/88 15:42:06 0	CALIPER	213.400 CPS	7.600 CM
7	07/28/88 15:42:06 0	CALIPER	1842.500 CPS	17.800 CM
8	07/28/88 13:56:46 0	DENSITYM	0.000 CPS	0.000 G/CC
9	07/28/88 13:56:46 0	DENSITYM	0.000 CPS	0.000 G/CC
10	07/28/88 13:56:46 0	CALIPERL	0.000 CPS	0.000 CM
11	07/28/88 13:56:46 0	CALIPERL	0.000 CPS	0.000 CM

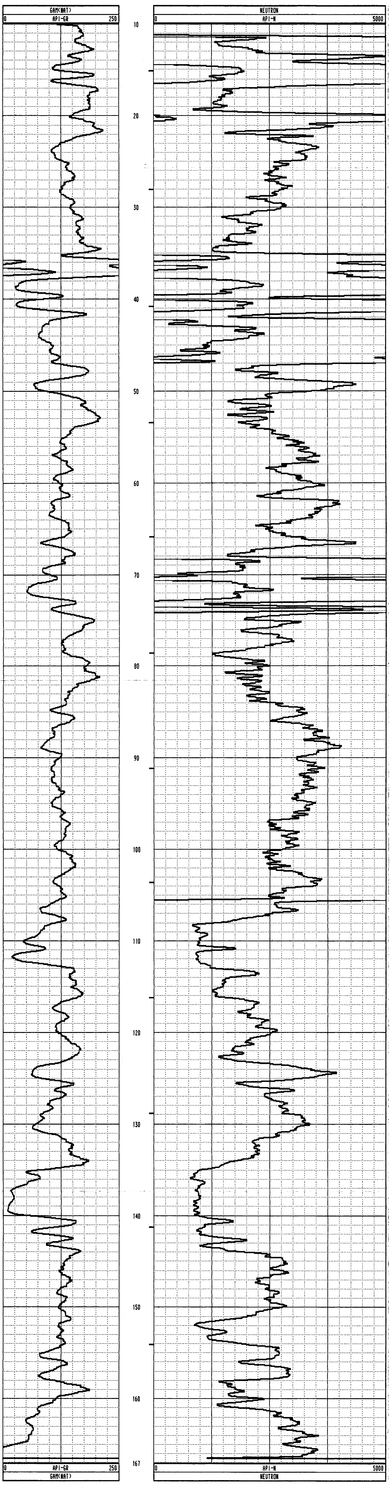
#880 Century

QHR 88006 GAMMA-NEUTRON

COMPANY	: QUINTETTE COAL LTD.	OTHER SERVICES:	
WELL	: QHR 88006 GAMMA-NEUTRON	GAM.DEN.	
LOCATION/FIELD	: BL 20000:SL 29500 TRANSFER W	NEUT.RES	
COUNTY	:	CAL.DEV	
STATE	: BRITISH COLUMBIA		
SECTION	: TOWNSHIP :	RANGE :	
DATE	: 08/23/88	PERMANENT DATUM : 1550	ELEVATIONS
DEPTH DRILLER	: 169 M	ELEV. PERM. DATUM: 1550	KB : 1550
LOG BOTTOM	: 166.62	LOG MEASURED FROM: 1550	DF : 1550
LOG TOP	: 9.98	DRL MEASURED FROM: 1550	GL : 1550
CASING DRILLER	: 4	LOGGING UNIT : 8401	
CASING TYPE	: STEEL	FIELD OFFICE : CALGARY	
CASING THICKNESS: 0		RECORDED BY : G. MURPHY	
BIT SIZE	: 15.6	BOREHOLE FLUID : WATER	FILE : ORIGINAL
MAGNETIC DECL.	: 24.500	RM : 0	TYPE : 9055A
MATRIX DENSITY	: 2.68	RM TEMPERATURE : 0	LOG : B
FLUID DENSITY	: 1.0	MATRIX DELTA T : 173	PLOT : QUIN 2
NEUTRON MATRIX	: SANDSTONE	FLUID DELTA T : 690	THRESH: 2500
REMARKS	:		

ANGLE HOLE AZIMUTH 217 INCLINATION 60

ALL SERVICES PROVIDED SUBJECT TO CGC STANDARD TERMS AND CONDITIONS



TOOL CALIBRATION TOOL = 9055A SERIAL NUMBER = 46

	CAL-DATE	CAL-TIME	SRCE	SENSOR	RESPONSE	STANDARD
0	07/28/88	15:07:18	0	GAM(NAT)	0.000 CPS	0.000 API-GR
1	07/28/88	15:07:18	0	GAM(NAT)	0.000 CPS	0.000 API-GR
2	07/28/88	15:20:10	0	POROSITY	0.000 CPS	190.000 CPS
3	07/28/88	15:07:18	0	RES	0.000 CPS	0.000 OHM
4	07/28/88	15:07:18	0	RES	0.000 CPS	0.000 OHM
5	07/28/88	15:07:18	0	SP	0.000 CPS	0.000 MV
6	07/28/88	15:07:18	0	SP	0.000 CPS	0.000 MV
7	07/28/88	15:19:56	0	NEUTRON	0.000 CPS	0.000 API-N
8	07/28/88	15:19:56	0	NEUTRON	190.000 CPS	271.000 API-N

Century

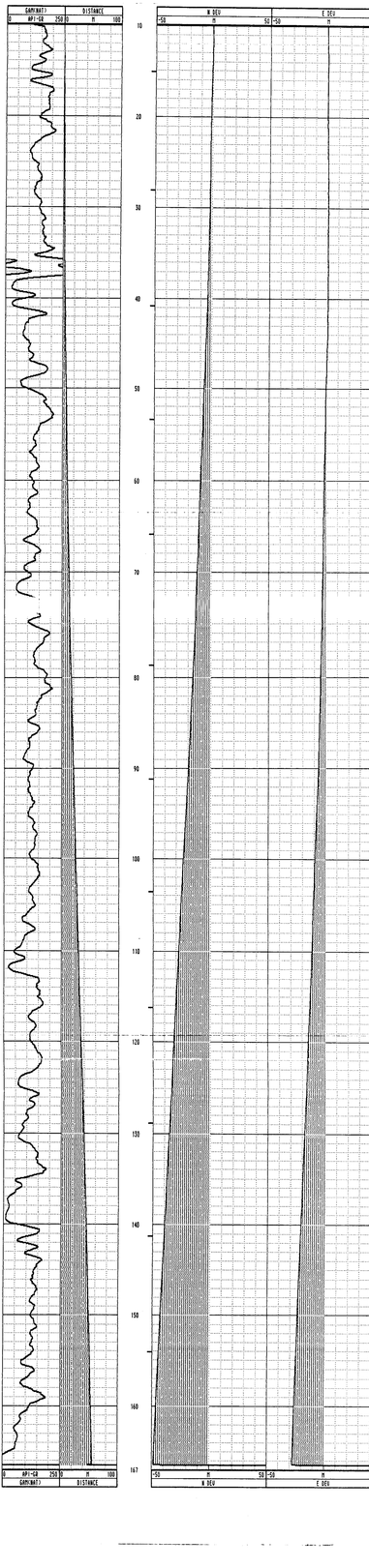
QHR 88006 DEVIATION

COMPANY	: QUINTETTE COAL LTD.			OTHER SERVICES:	
WELL	: QHR 88006 DEVIATION			GAM.DEV.	
LOCATION/FIELD	: BL 20000:SL 29500 TRANSFER W			NEUT.RES	
COUNTY	:			CAL.DEV	
STATE	: BRITISH COLUMBIA				
SECTION	:	TOWNSHIP	:	RANGE	:
DATE	: 08/24/88	PERMANENT DATUM	: 1550	ELEVATIONS	
DEPTH DRILLER	: 169 M	ELEV. PERM. DATUM:	1550	KB	: 1550
LOG BOTTOM	: 166.62	LOG MEASURED FROM:	1550	DF	: 1550
LOG TOP	: 9.98	DRL MEASURED FROM:	1550	GL	: 1550
CASING DRILLER	: 4	LOGGING UNIT	: 8401		
CASING TYPE	: STEEL	FIELD OFFICE	: CALGARY		
CASING THICKNESS:	0	RECORDED BY	: G. MURPHY		
BIT SIZE	: 15.6	BOREHOLE FLUID	: WATER	FILE	: PROCESSED
MAGNETIC DECL.	: 24.500	RM	: 0	TYPE	: 9055A
MATRIX DENSITY	: 2.66	RM TEMPERATURE	: 0	LOG	: 5
FLUID DENSITY	: 1.0	MATRIX DELTA T	: 173	PLOT	: QUIN 6
NEUTRON MATRIX	: SANDSTONE	FLUID DELTA T	: 690	THRESH:	2500
REMARKS	:				

ANGLE HOLE AZIMUTH 217 INCLINATION 60

ALL SERVICES PROVIDED SUBJECT TO CGC STANDARD TERMS AND CONDITIONS

#880



* * * * * * * * * * COMPU-LOG II - VERTICAL DEVIATION * * * * * * * * * *

CLIENT : QUINTETTE COAL LTD. HOLE ID. : QHR 88006 GAM
FIELD OFFICE : CALGARY DATE OF LOG : 08/24/88
DATA FROM : PROBE : 9055A 46
MAG. DECL. : 24.500 DEPTH UNITS : FEET LOG 5

Table Depth	True Depth	North Dev.	East Dev.	Distance	Azimuth	SANB	SANGB
10.0	10.00	0.00	0.00	0.0	-.0	0.0	0.0
15.0	14.98	-.50	0.27	0.6	151.7	36.0	105.6
20.0	18.68	-1.25	0.42	1.3	161.4	30.8	178.5
25.0	22.81	-1.59	0.76	1.8	154.6	30.6	322.9
30.0	26.87	-2.02	1.19	2.3	149.4	36.4	153.8
35.0	30.99	-2.81	1.10	3.0	158.7	32.8	248.7
40.0	35.07	-3.67	1.22	3.9	161.5	39.2	146.7
45.0	39.18	-4.94	0.87	5.0	170.0	33.6	221.2
50.0	43.29	-6.55	-.29	6.6	182.6	34.2	219.8
55.0	47.46	-7.72	-.82	7.8	186.1	32.0	215.5
60.0	51.61	-9.12	-1.31	9.2	188.1	31.4	299.9
65.0	55.81	-10.62	-1.98	10.8	190.6	32.7	269.4
70.0	59.97	-12.17	-2.54	12.4	191.8	31.0	181.7
75.0	64.15	-13.78	-3.37	14.2	193.7	29.7	144.8
80.0	68.33	-15.78	-4.49	16.4	195.9	36.1	178.3
85.0	72.46	-17.61	-5.26	18.4	196.6	35.2	265.3
90.0	76.60	-19.47	-6.10	20.4	197.4	33.1	217.6
95.0	80.77	-21.51	-7.62	22.8	199.5	33.7	224.8
100.0	84.96	-23.56	-8.89	25.2	200.7	31.0	280.9
105.0	89.13	-25.61	-10.29	27.6	201.9	35.1	228.8
110.0	93.33	-27.54	-11.48	29.8	202.6	31.9	219.7
115.0	97.53	-29.51	-12.84	32.2	203.5	32.2	223.4
120.0	101.78	-31.57	-14.46	34.7	204.6	31.6	217.4
125.0	106.06	-33.59	-16.08	37.2	205.6	30.9	219.1
130.0	110.36	-35.57	-17.68	39.7	206.4	29.9	220.1
135.0	114.72	-37.50	-19.18	42.1	207.1	29.0	217.0
140.0	119.10	-39.38	-20.67	44.5	207.7	28.0	219.6
145.0	123.53	-41.22	-22.10	46.8	208.2	27.7	217.5
150.0	127.98	-43.01	-23.50	49.0	208.6	26.5	217.6
155.0	132.46	-44.76	-24.83	51.2	209.0	26.0	210.7
160.0	136.97	-46.47	-26.15	53.3	209.4	25.5	218.2
165.0	141.50	-48.16	-27.41	55.4	209.6	24.5	218.7
166.6	142.99	-48.68	-27.77	56.0	209.7	0.0	0.0

1:200 (MARKED)

#880

Century

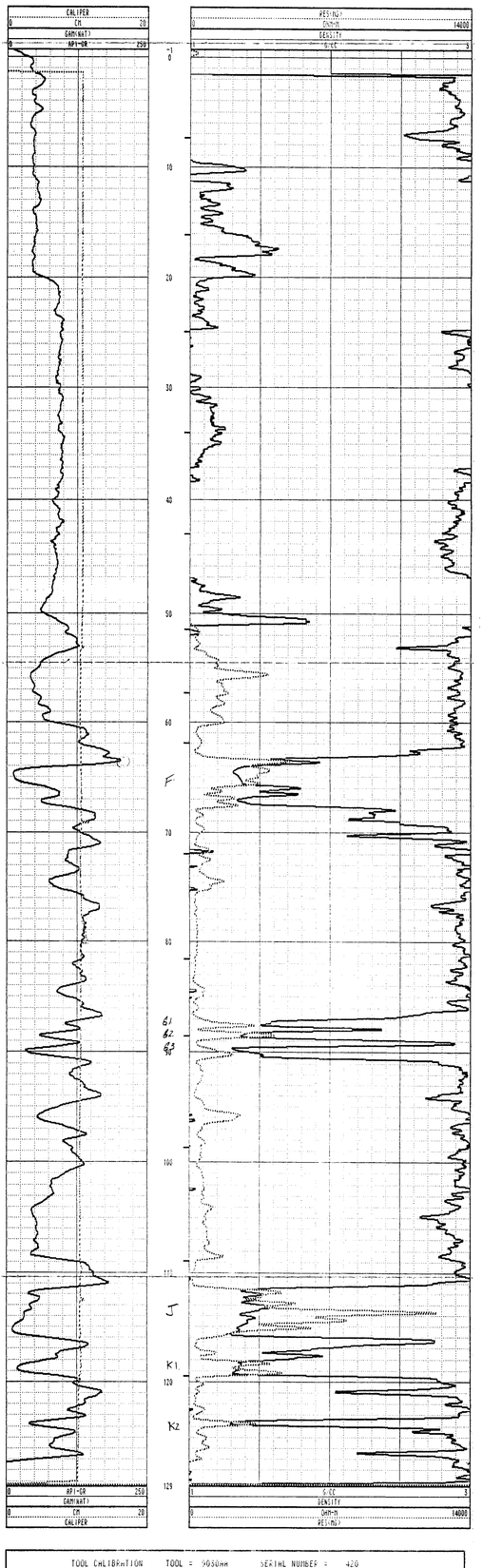
QHD88007 GAMMA DENSITY

COMPANY	: QUINTETTE COAL LTD.	OTHER SERVICES:	
WELL	: QHD88007 GAMMA DENSITY	DEN.NEUT	
LOCATION/FIELD	: GRIZZLY	GAMMRES.	
COUNTY	:	CAL.DEV	
STATE	: BRITISH COLUMBIA		
SECTION	: TOWNSHIP :	RANGE :	
DATE	: 10/20/88	PERMANENT DATUM : 0	ELEVATIONS
DEPTH DRILLER	: 129.84	ELEV. PERM. DATUM: 0	KB : 0
LOG BOTTOM	: 129.42	LOG MEASURED FROM: 0	DF : 0
LOG TOP	: -.62	DRL MEASURED FROM: 0	GL : 0
CASING DRILLER	: 52.43	LOGGING UNIT : 8401	
CASING TYPE	: STEEL	FIELD OFFICE : CHLOARY	
CASING THICKNESS	: 0.5	RECORDED BY : G.PHILLIPS	
BIT SIZE	: 17.8	BOREHOLE FLUID : WATER	FILE : ORIGINAL
MAGNETIC DECL.	: 24.500	RM : 0	TYPE : 9030HH
MATRIX DENSITY	: 2.68	RM TEMPERATURE : 0	LOG : 1
FLUID DENSITY	: 1.0	MATRIX DELTA T : 173	PLOT : QUIN 3
NEUTRON MATRIX	: SANDSTONE	FLUID DELTA T : 690	THRESH: 15000
REMARKS	:		

VERTICAL

LOGGED OPEN HOLE 8L170/SL25790

ALL SERVICES PROVIDED SUBJECT TO CGC STANDARD TERMS AND CONDITIONS



TOOL CALIBRATION TOOL = 9030HH SERIAL NUMBER = 420

	CAL-DATE	CAL-TIME	SRCE	SENSOR	RESPONSE	STANDARD
0	09/22/88	16:44:23	0	GAMMART	0.000 CPS	0.000 API-GR
1	09/17/88	17:56:16	0	GAMMART	0.000 CPS	0.000 API-GR
2	09/17/88	17:59:01	0	DENSITY	5615.000 CPS	1.106 G/CC
3	09/17/88	17:59:01	0	DENSITY	2230.500 CPS	2.120 G/CC
4	09/17/88	17:56:16	0	RESMED	0.000 CPS	0.000 OHM-M
5	09/17/88	17:56:16	0	RESMED	0.000 CPS	0.000 OHM-M
6	09/22/88	13:57:32	0	CALIPER	215.400 CPS	7.600 CM
7	09/22/88	13:57:32	0	CALIPER	1842.500 CPS	17.800 CM
8	09/17/88	17:56:16	0	DENSITYH	0.000 CPS	0.000 G/CC
9	09/17/88	17:56:16	0	DENSITYH	0.000 CPS	0.000 G/CC
10	09/22/88	13:57:57	0	CALIPERL	0.000 CPS	0.000 CM
11	09/22/88	13:57:57	0	CALIPERL	0.000 CPS	0.000 CM

1120 MAIN 3

#850 Century

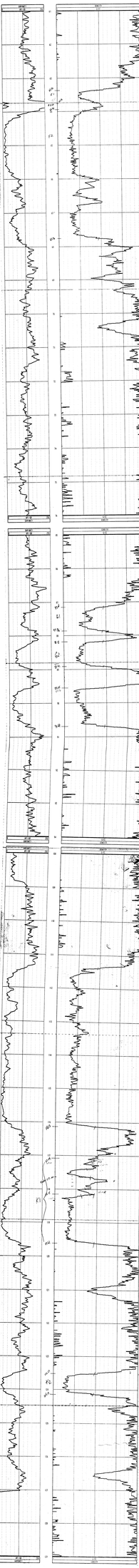
GHD&&007 GAMMA DENSITY

COMPANY	: GUINNESS COAL LTD.	OTHER SERVICES:	
WELL	: GUINNESS GAMMA DENSITY	NEW YORK	
LOCATION-FIELD	: BRIZEL	SAMPLES:	
COUNTY	:	CALIPER	
STATE	: BRITISH COLUMBIA		
SECTION	: TOWNSHIP	RANGE :	

DATE	: 10-20-88	PERMANENT DATUM	: 0	ELEVATIONS	
DEPTH DRILLER	: 124.24	ELEV. PERM. DATUM	: 0	LM	: 0
LOG BOTTOM	: 124.42	LOG MEASURED FROM	: 0	SF	: 0
LOG TOP	: 0.0	LOG MEASURED FROM	: 0	SL	: 0
CASING DRILLER	: 92.40	LOGGING UNIT	: 0001		
CASING TYPE	: STEEL	FIELD OFFICE	: CALGARY		
CASING THICKNESS	: 0.5	RECORDED BY	: S.PHILLIPS		

BIT SIZE	: 97.6	LOGGING FLUID	: WATER	FILE	: GRIGINAL
MAGNETIC DECL.	: 24.500	RM	: 0	TYPE	: NEODAR
MATRIX DENSITY	: 2.65	RM TEMPERATURE	: 0	LOG	: 1
FLUID DENSITY	: 1.0	MATRIX DELTA T	: 175	PLOT	: GAIN 5
MATRIX MATRIX	: SANDSTONE	FLUID DELTA T	: 500	TRACKS	: TRACK

REMARKS
VERTICAL
LOGGED OPEN HOLE BLOCK SLOTTED
ALL SERVICES PROVIDED SUBJECT TO CIT STANDARD TERMS AND CONDITIONS.



#880 Century

QHD88007 GAMMA NEUTRON

COMPANY	: QUINTETTE COAL LTD.	OTHER SERVICES:	
WELL	: QHD88007 GAMMA NEUTRON	DEN.NEUT	
LOCATION/FIELD	: GRIZZLY	GAM.RES.	
COUNTY	:	CAL.DEV	
STATE	: BRITISH COLUMBIA		
SECTION	: TOWNSHIP :	RANGE :	

DATE	: 10/20/88	PERMANENT DATUM	: 0
DEPTH DRILLER	: 129.84	ELEV. PERM. DATUM: 0
LOG BOTTOM	: 129.34	LOG MEASURED FROM: 0
LOG TOP	: 0.32	DRL MEASURED FROM: 0

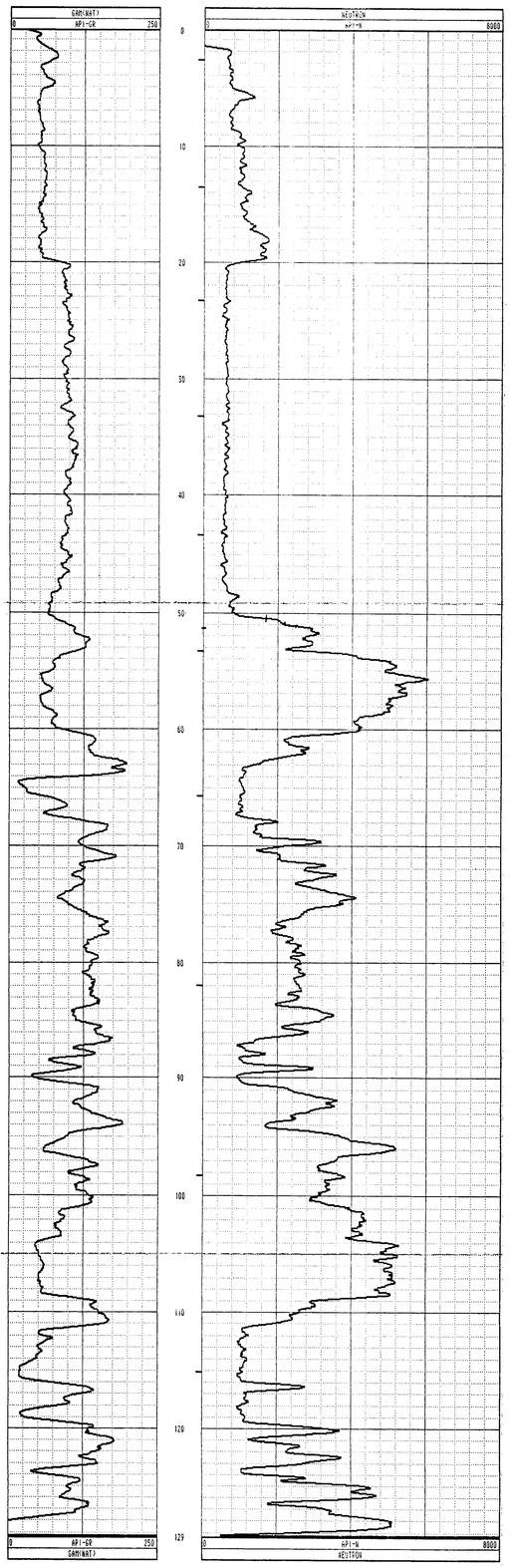
ELEVATIONS
KB : 0
DF : 0
GL : 0

CASING DRILLER	: 52.43	LOGGING UNIT	: 8401
CASING TYPE	: STEEL	FIELD OFFICE	: CHILLIWACK
CASING THICKNESS: 0.5		RECORDED BY	: G.PHILLIPS

BIT SIZE	: 17.8	BOREHOLE FLUID	: WATER	FILE	: ORIGINAL
MAGNETIC DECL.	: 24.500	RM	: 0	TYPE	: 9055A
MATRIX DENSITY	: 2.68	RM TEMPERATURE	: 0	LOG	: 2
FLUID DENSITY	: 1.0	MATRIX DELTA T	: 175	PLOT	: 0 0
NEUTRON MATRIX	: SANDSTONE	FLUID DELTA T	: 690	THRESH:	15000

REMARKS :
VERTICAL
LOGGED OPEN HOLE 8L170/SL25790

ALL SERVICES PROVIDED SUBJECT TO CGC STANDARD TERMS AND CONDITIONS



TOOL CALIBRATION TOOL = 9055A SERIAL NUMBER = 46

	CAL-DATE	CAL-TIME	SRCE	SENSOR	RESPONSE	STANDARD
0	07/28/88	15:07:18	0	GAMMA(T)	0.000 CPS	0.000 API-GR
1	07/28/88	15:07:18	0	GAMMA(T)	0.000 CPS	0.000 API-GR
2	10/05/88	12:07:01	0	POROSITY	0.000 CPS	190.000 CPS
3	07/28/88	15:07:18	0	RES	0.000 CPS	0.000 OHM
4	07/28/88	15:07:18	0	RES	0.000 CPS	0.000 OHM
5	07/28/88	15:07:18	0	SP	0.000 CPS	0.000 MV
6	07/28/88	15:07:18	0	SP	0.000 CPS	0.000 MV
7	07/28/88	15:19:56	0	NEUTRON	0.000 CPS	0.000 API-N
8	07/28/88	15:19:56	0	NEUTRON	190.000 CPS	271.000 API-N

#880

Century

CGC

QHD88007 DEVIATION

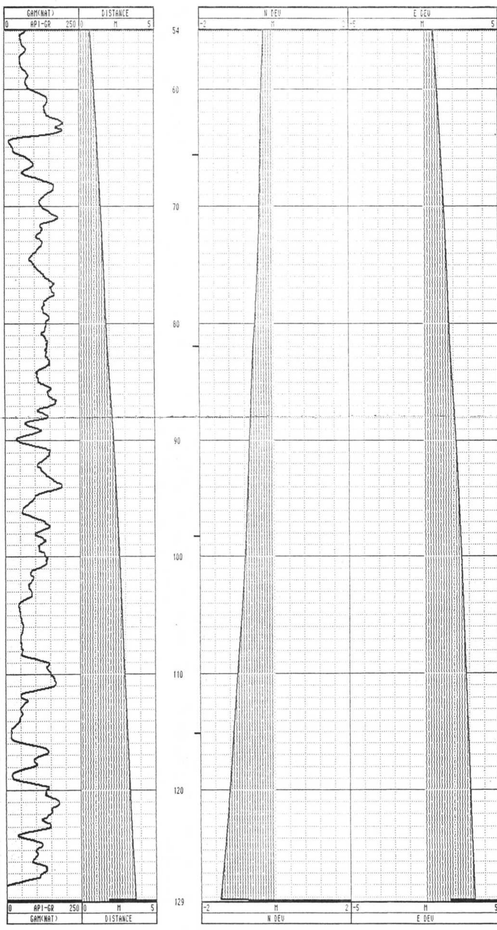
COMPANY	: QUINTETTE COAL LTD.	OTHER SERVICES:	
WELL	: QHD88007 DEVIATION	DEN.NEUT	
LOCATION/FIELD	: GRIZZLY	GAM.RES.	
COUNTY	:	CAL.DEV	
STATE	: BRITISH COLUMBIA		
SECTION	:	TOWNSHIP :	RANGE :

DATE	: 10/20/88	PERMANENT DATUM	: 0	ELEVATIONS	
DEPTH DRILLER	: 129.84	ELEV. PERM. DATUM	: 0	KB	: 0
LOG BOTTOM	: 129.34	LOG MEASURED FROM	: 0	DF	: 0
LOG TOP	: 0.32	DRL MEASURED FROM	: 0	GL	: 0
CASING DRILLER	: 52.43	LOGGING UNIT	: 8401		
CASING TYPE	: STEEL	FIELD OFFICE	: CALGARY		
CASING THICKNESS	: 0.5	RECORDED BY	: G.PHILLIPS		
BIT SIZE	: 17.8	BOREHOLE FLUID	: WATER	FILE	: PROCESSED
MAGNETIC DECL.	: 24.500	RM	: 0	TYPE	: 9055A
MATRIX DENSITY	: 2.68	RM TEMPERATURE	: 0	LOG	: 5
FLUID DENSITY	: 1.0	MATRIX DELTA T	: 173	PLOT	: 0 1
NEUTRON MATRIX	: SANDSTONE	FLUID DELTA T	: 690	THRESH	: 15000
REMARKS	:				

VERTICAL

LOGGED OPEN HOLE BL170/SL25790

ALL SERVICES PROVIDED SUBJECT TO CGC STANDARD TERMS AND CONDITIONS

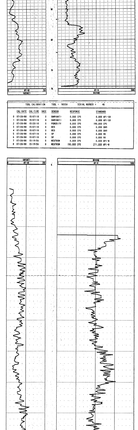


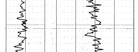
* * * * * * * * * * * COMPU-LOG II - VERTICAL DEVIATION * * * * * * * * * * *

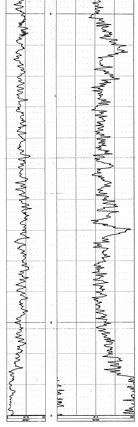
CLIENT : QUINTETTE COAL LTD. HOLE ID. : QHD88007 DEVI
FIELD OFFICE : CALGARY DATE OF LOG : 10/20/88
DATA FROM : PROBE : 9055A , 46
MAG. DECL. : 24.500 DEPTH UNITS : METER LOG 5

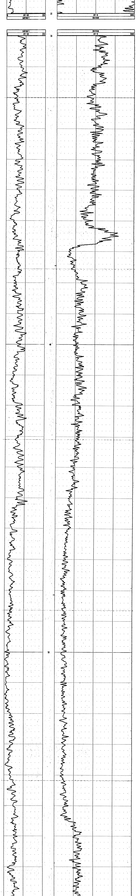
Table Depth	True Depth	North Dev.	East Dev.	Distance	Azimuth	SANG	SANGD
55.0	54.92	-.27	0.68	0.7	111.8	2.9	98.0
65.0	64.91	-.35	1.17	1.2	106.7	2.5	95.6
75.0	74.90	-.43	1.36	1.6	105.4	2.0	114.1
85.0	84.89	-.57	1.73	2.0	107.1	2.9	106.8
95.0	94.88	-.71	2.36	2.5	106.8	2.3	107.9
105.0	104.88	-.87	2.66	2.9	108.2	1.8	122.1
115.0	114.87	-1.10	2.93	3.1	110.6	2.2	134.1
125.0	124.86	-1.34	3.20	3.5	112.7	2.3	139.9
129.3	129.20	-1.48	3.32	3.6	114.0	0.0	0.0

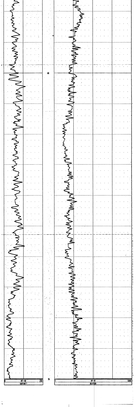
Century
GCS 88007 GAMMA-VECTOR











Century

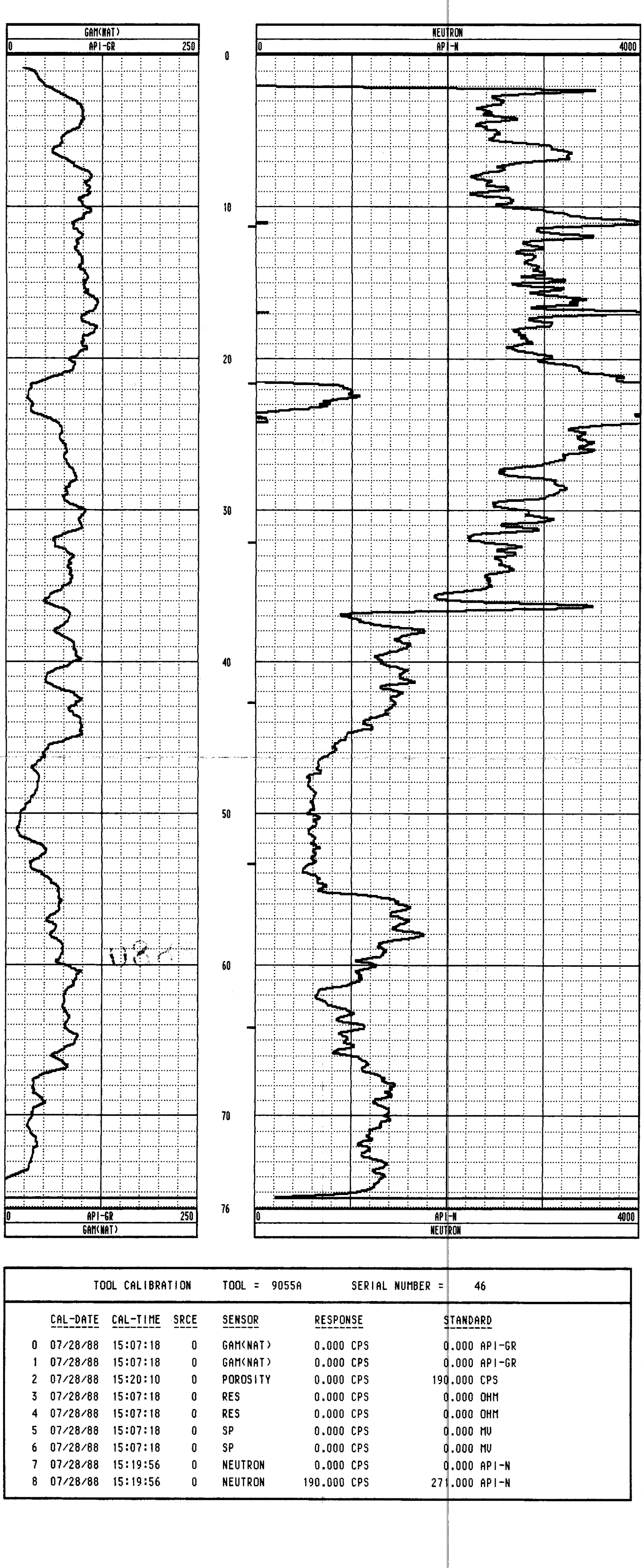
QHR 88007 GAMMA-NEUTRON

COMPANY	: QUINTETTE COAL LTD.				
WELL	: QHR 88007 GAMMA-NEUTRON				
LOCATION/FIELD	: BL 19950:SL 29760/TRANSFER W				
COUNTY	:				
STATE	: BRITISH COLUMBIA				
SECTION	:	TOWNSHIP	:	RANGE	:
DATE	: 08/14/88	PERMANENT DATUM	: 1590	ELEVATIONS	
DEPTH DRILLER	: 78.2	ELEV. PERM. DATUM	: 1590	KB	: 1590
LOG BOTTOM	: 75.48	LOG MEASURED FROM	: 1590	DF	: 1590
LOG TOP	: 0.78	DRL MEASURED FROM	: 1590	GL	: 1590
CASING DRILLER	: 2.4	LOGGING UNIT	: 8401		
CASING TYPE	: STEEL	FIELD OFFICE	: CALGARY		
CASING THICKNESS	: 0	RECORDED BY	: W. STROEBEL		
BIT SIZE	: 15.6	BOREHOLE FLUID	: WATER	FILE	: ORIGINAL
MAGNETIC DECL.	: 24.5	RM	: 0	TYPE	: 9055A
MATRIX DENSITY	: 2.68	RM TEMPERATURE	: 0	LOG	: 6
FLUID DENSITY	: 1.0	MATRIX DELTA T	: 173	PLOT	: QUIN 2
NEUTRON MATRIX	: SANDSTONE	FLUID DELTA T	: 690	THRESH	: 2500

OTHER SERVICES:
GAM.DEN.
NEUT.RES
CAL.DEV

REMARKS :
LOGGED THROUGH RODS
ANGLE HOLE AZIMUTH 217 INCLINATION 60

ALL SERVICES PROVIDED SUBJECT TO CGC STANDARD TERMS AND CONDITIONS



TOOL CALIBRATION TOOL = 9055A SERIAL NUMBER = 46

	CAL-DATE	CAL-TIME	SRCE	SENSOR	RESPONSE	STANDARD
0	07/28/88	15:07:18	0	GAM(NAT)	0.000 CPS	0.000 API-GR
1	07/28/88	15:07:18	0	GAM(NAT)	0.000 CPS	0.000 API-GR
2	07/28/88	15:20:10	0	POROSITY	0.000 CPS	190.000 CPS
3	07/28/88	15:07:18	0	RES	0.000 CPS	0.000 OHM
4	07/28/88	15:07:18	0	RES	0.000 CPS	0.000 OHM
5	07/28/88	15:07:18	0	SP	0.000 CPS	0.000 MV
6	07/28/88	15:07:18	0	SP	0.000 CPS	0.000 MV
7	07/28/88	15:19:56	0	NEUTRON	0.000 CPS	0.000 API-N
8	07/28/88	15:19:56	0	NEUTRON	190.000 CPS	271.000 API-N

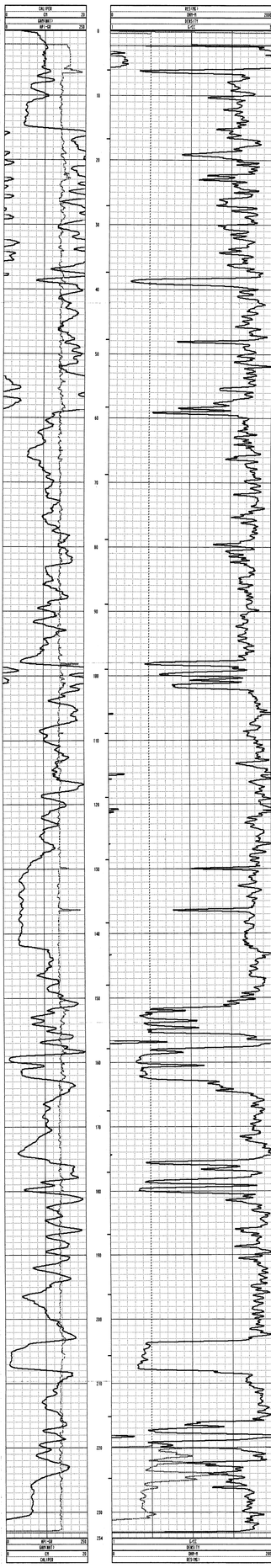
Century #880

QHR 88008 GAMMA-DENSITY

COMPANY	: QUINTETTE COAL LTD.	OTHER SERVICES:	
WELL	: QHR 88008 GAMMA-DENSITY	GAM_DEN.	
LOCATION/FIELD	: BL 2150.5L S1260/TRANSFER W	NEUT.RES	
COUNTY	:	RES.CAL	
STATE	: BRITISH COLUMBIA		
SECTION	: TOWNSHIP	: RANGE	:
DATE	: 08/18/88	PERMANENT DATUM : 1470	ELEVATIONS
DEPTH DRILLER	: 235 M	ELEV. PERM. DATUM: 1470	KB : 1470
LOG BOTTOM	: 233.34	LOG MEASURED FROM: 1470	DF : 1470
LOG TOP	: 0.00	DRL MEASURED FROM: 1470	GL : 1470
CASING DRILLER	: 6	LOGGING UNIT : 8401	
CASING TYPE	: STEEL	FIELD OFFICE : CALGARY	
CASING THICKNESS	: 0	RECORDED BY : W. STRODEBEL	
BIT SIZE	: 15.6	BOREHOLE FLUID : WATER	FILE : ORIGINAL
MAGNETIC DECL.	: 24.5	RM : 0	TYPE : 9030AA
MATRIX DENSITY	: 2.68	RM TEMPERATURE : 0	LOG : 5
FLUID DENSITY	: 1.0	MATRIX DELTA T : 173	PLOT : QUIN 3
NEUTRON MATRIX	: SANDSTONE	FLUID DELTA T : 690	THRESH: 2500
REMARKS	:		

ANGLE HOLE AZIMUTH 217 INCLINATION 60

ALL SERVICES PROVIDED SUBJECT TO CGC STANDARD TERMS AND CONDITIONS



TOOL CALIBRATION TOOL = 9030AA SERIAL NUMBER = 404

	CAL-DATE	CAL-TIME	SECS	SENSOR	RESPONSE	STANDARD
0	07/28/88	15:56:46	0	GAMMANAT	0.000 CPS	0.000 API-GR
1	07/28/88	15:56:46	0	GAMMANAT	0.000 CPS	0.000 API-GR
2	07/28/88	14:13:46	0	DENSITY	5615.000 CPS	1.106 G/CC
3	07/28/88	14:13:46	0	DENSITY	2230.500 CPS	2.120 G/CC
4	07/28/88	15:56:46	0	RESIMED	0.000 CPS	0.000 OHM-M
5	07/28/88	15:56:46	0	RESIMED	0.000 CPS	0.000 OHM-M
6	07/28/88	15:42:06	0	CALIPER	213.400 CPS	7.600 CM
7	07/28/88	15:42:06	0	CALIPER	1842.500 CPS	17.800 CM
8	07/28/88	15:56:46	0	DENSITYM	0.000 CPS	0.000 G/CC
9	07/28/88	15:56:46	0	DENSITYM	0.000 CPS	0.000 G/CC
10	07/28/88	15:56:46	0	CALIPERL	0.000 CPS	0.000 CM
11	07/28/88	15:56:46	0	CALIPERL	0.000 CPS	0.000 CM

QHR 88008 GAMMA-DENSITY

Century #880 — CGC

COMPANY	: QUINTETTE COAL LTD.			OTHER SERVICES:	
WELL	: QHR 88008 GAMMA-DENSITY			GAM.DEN.	
LOCATION/FIELD	: BL 2150:SL 31260/TRANSFER W			NEUT.RES	
COUNTY	:			RES.CAL	
STATE	: BRITISH COLUMBIA				
SECTION	:	TOWNSHIP	:	RANGE	:
DATE	: 08/18/88	PERMANENT DATUM	: 1470	ELEVATIONS	
DEPTH DRILLER	: 235 M	ELEV. PERM. DATUM	: 1470	KB	: 1470
LOG BOTTOM	: 233.34	LOG MEASURED FROM	: 1470	DF	: 1470
LOG TOP	: 0.08	DRL MEASURED FROM	: 1470	GL	: 1470
CASING DRILLER	: 6.	LOGGING UNIT	: 8401		
CASING TYPE	: STEEL	FIELD OFFICE	: CALGARY		
CASING THICKNESS	: 0	RECORDED BY	: W. STROEBEL		
BIT SIZE	: 15.6	BOREHOLE FLUID	: WATER	FILE	: ORIGINAL
MAGNETIC DECL.	: 24.5	RM	: 0	TYPE	: 9030AA
MATRIX DENSITY	: 2.68	RM TEMPERATURE	: 0	LOG	: 2
FLUID DENSITY	: 1.0	MATRIX DELTA T	: 173	PLOT	: QUIN 5
NEUTRON MATRIX	: SANDSTONE	FLUID DELTA T	: 690	THRESH	: 2500
REMARKS	:				

ANGLE HOLE AZIMUTH 217 INCLINATION 60

ALL SERVICES PROVIDED SUBJECT TO CGC STANDARD TERMS AND CONDITIONS

TOOL CALIBRATION TOOL = 9030AA SERIAL NUMBER = 404

	CAL-DATE	CAL-TIME	SRCE	SENSOR	RESPONSE	STANDARD
0	07/28/88	13:56:46	0	GAM(NAT)	0.000 CPS	0.000 API-GR
1	07/28/88	13:56:46	0	GAM(NAT)	0.000 CPS	0.000 API-GR
2	07/28/88	14:13:46	0	DENSITY	5615.000 CPS	1.106 G/CC
3	07/28/88	14:13:46	0	DENSITY	2230.500 CPS	2.120 G/CC
4	07/28/88	13:56:46	0	RES(MG)	0.000 CPS	0.000 OHM-M
5	07/28/88	13:56:46	0	RES(MG)	0.000 CPS	0.000 OHM-M
6	07/28/88	15:42:06	0	CALIPER	213.400 CPS	7.600 CM
7	07/28/88	15:42:06	0	CALIPER	1842.500 CPS	17.800 CM
8	07/28/88	13:56:46	0	DENSITYH	0.000 CPS	0.000 G/CC
9	07/28/88	13:56:46	0	DENSITYH	0.000 CPS	0.000 G/CC
10	07/28/88	13:56:46	0	CALIPERL	0.000 CPS	0.000 CM
11	07/28/88	13:56:46	0	CALIPERL	0.000 CPS	0.000 CM

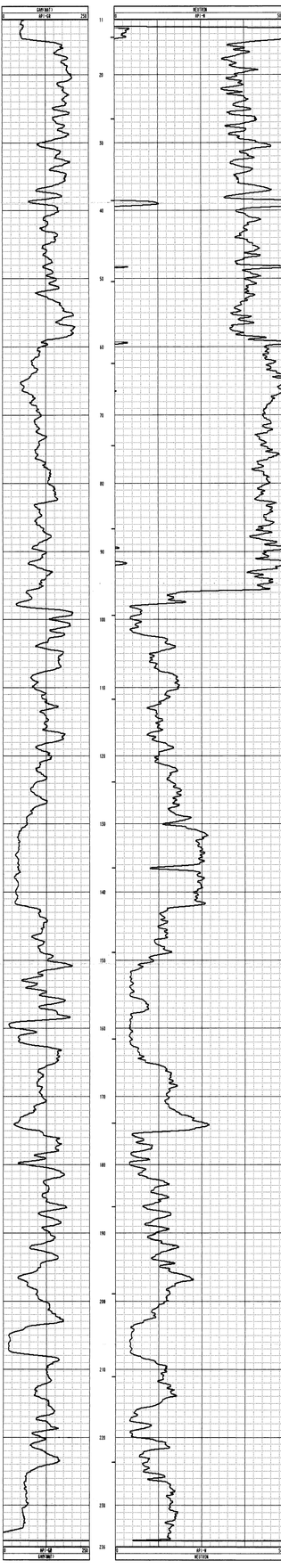
#880 Century

QHR 88008 GAMMA-NEUTRON

COMPANY	: QUINTETTE COAL LTD.			OTHER SERVICES:	
WELL	: QHR 88008 GAMMA-NEUTRON			GAM_DEN.	
LOCATION/FIELD	: BL 2150.15L 3126.0/TRANSFER W			NEUT.RES	
COUNTY	:			RES.CAL	
STATE	: BRITISH COLUMBIA				
SECTION	:	TOWNSHIP	:	RANGE	:
DATE	: 08/18/88	PERMANENT DATUM	: 1470	ELEVATIONS	
DEPTH DRILLER	: 235 M	ELEV. PERM. DATUM	: 1470	KB	: 1470
LOG BOTTOM	: 235.26	LOG MEASURED FROM	: 1470	DF	: 1470
LOG TOP	: 11.70	DRL MEASURED FROM	: 1470	GL	: 1470
CASING DRILLER	: 6	LOGGING UNIT	: 8401		
CASING TYPE	: STEEL	FIELD OFFICE	: CALGARY		
CASING THICKNESS	: 0	RECORDED BY	: W. STROOBEL		
BIT SIZE	: 15.6	BOREHOLE FLUID	: WATER	FILE	: ORIGINAL
MAGNETIC DECL.	: 24.5	RM	: 0	TYPE	: 9055A
MATRIX DENSITY	: 2.68	RM TEMPERATURE	: 0	LOG	: 5
FLUID DENSITY	: 1.0	MATRIX DELTA T	: 173	PLOT	: QUIN 2
NEUTRON MATRIX	: SANDSTONE	FLUID DELTA T	: 690	THRESH	: 2500
REMARKS	:				

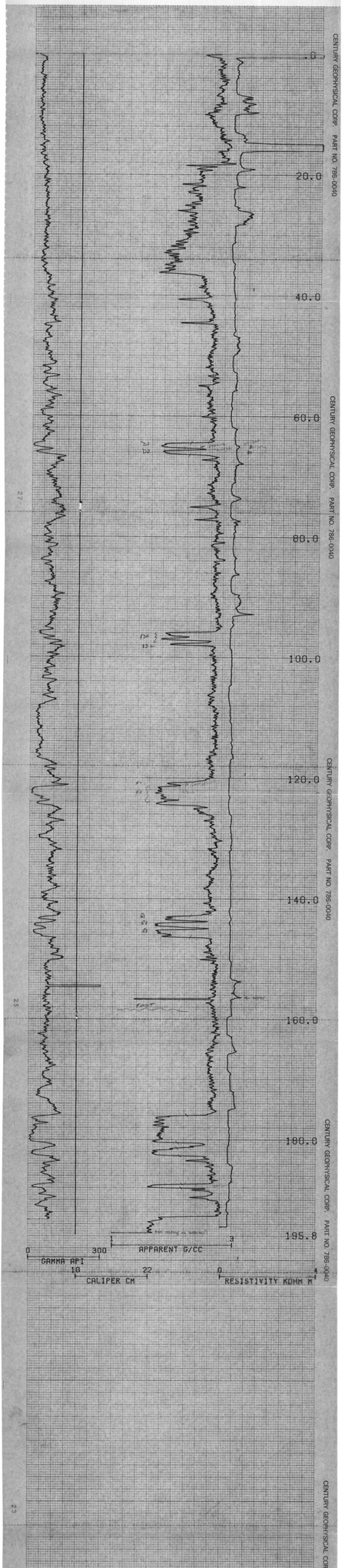
ANGLE HOLE AZIMUTH 217 INCLINATION 60

ALL SERVICES PROVIDED SUBJECT TO CGC STANDARD TERMS AND CONDITIONS



TOOL CALIBRATION TOOL = 9055A SERIAL NUMBER = 0

	CAL-DATE	CAL-TIME	SRCE	SENSOR	RESPONSE	STANDARDS
0	07/28/88	14:27:38	0	GAM/NAT>	0.000 CPS	0.000 API-GR
1	07/28/88	14:27:38	0	GAM/NAT>	0.000 CPS	0.000 API-GR
2	07/28/88	14:36:09	0	POROSITY	0.000 CPS	177.000 CPS
3	07/28/88	14:27:38	0	RES	0.000 CPS	0.000 OHM
4	07/28/88	14:27:38	0	RES	0.000 CPS	0.000 OHM
5	07/28/88	14:27:38	0	SP	0.000 CPS	0.000 MV
6	07/28/88	14:27:38	0	SP	0.000 CPS	0.000 MV
7	07/28/88	14:34:17	0	NEUTRON	0.000 CPS	0.000 API-N
8	07/28/88	14:34:17	0	NEUTRON	177.000 CPS	271.000 API-N



COMPU-LOG V8L2 PLOT 10-29-80

QHD88008

GAMMA-DENSI (Rods)

GRIZZLY

HOLE DIAMETER : 11.0

PROBE # 9032C1- 861

SENSOR #4 CAL STD CPS = 7127

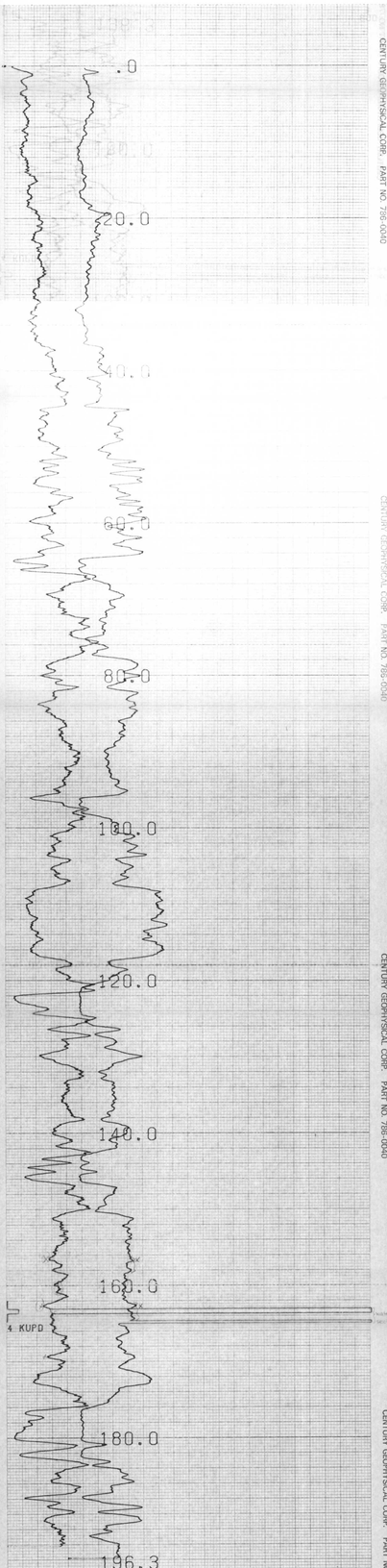
SENSOR #4 CAL RUN CPS = 2500

SENSOR #4 CAL BIAS = -1

DATA V8L2WA TRUCK # 646

L.V APPL.#30 L1

#880



COMPU-LOG V8L2 PLOT 10-29-80

QHD88008

GAMMA-NEUTRON(RODS)

GRIZZLY

HOLE DIAMETER = 11.0

PROBE # 9055A - 054

SENSOR #4 CAL STD CPS = 152

SENSOR #4 CAL RUN CPS = 186

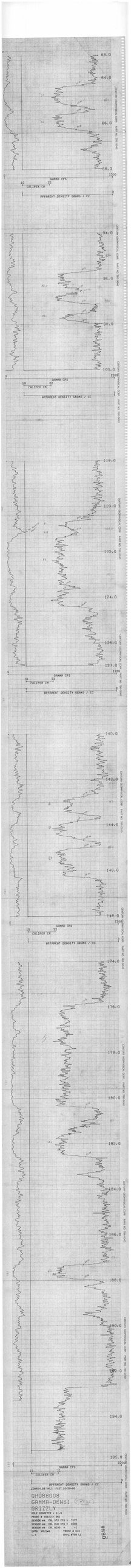
SENSOR #4 CAL BIAS = 0

DATA V8L2#A TRUCK # 646

L.Y APPL.#7 L1

#680

CENTURY GEOPHYSICAL CORP. PART NO. 786-0040



QHD88008
GAMMA-DENSI
GRIZZLY
MOLE DIAMETER = 11.0
FORCE ON MOLE = 0.0
SCANDIA #4: CNL STD CPS = 1537
SCANDIA #4: CNL RUN CPS = 1550
SCANDIA #4: CNL RIAS = -1
DATE VOLUME TRACK # 6X6
L.V APPL.#TOR L1

#880

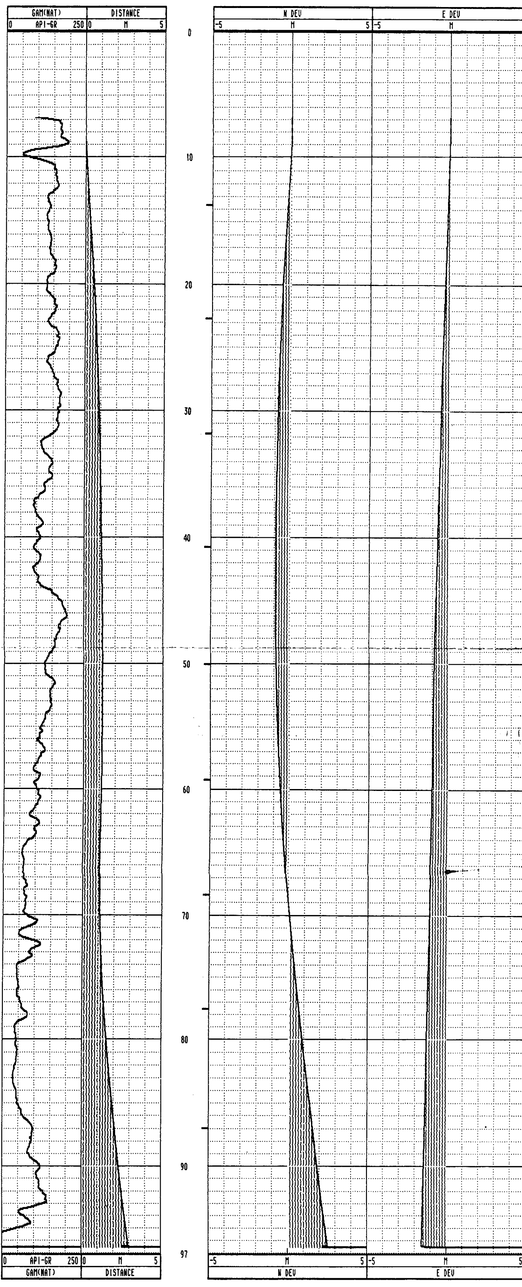
Century

QHR 88009 DEVIATION

COMPANY	: QUINTETTE COAL LTD.			OTHER SERVICES:	
WELL	: QHR 88009 DEVIATION			GAM.DEN.	
LOCATION/FIELD	: BRL 19900:SL 30830 TRANSFER W			NEUT	
COUNTY	:			RES.CAL	
STATE	: BRITISH COLUMBIA				
SECTION	:	TOWNSHIP	:	RANGE	:
DATE	: 08/20/88	PERMANENT DATUM	: 1550	ELEVATIONS	
DEPTH DRILLER	: 97 M	ELEV. PERM. DATUM	: 1550	KB	: 1550
LOG BOTTOM	: 96.62	LOG MEASURED FROM	: 1660	DF	: 1550
LOG TOP	: 6.88	DRL MEASURED FROM	: 1550	GL	: 1550
CASING DRILLER	: 6	LOGGING UNIT	: 8401		
CASING TYPE	: STEEL	FIELD OFFICE	: CALGARY		
CASING THICKNESS	: 0	RECORDED BY	: W. STROEBEL		
BIT SIZE	: 15.6	BOREHOLE FLUID	: WATER	FILE	: ORIGINAL
MAGNETIC DECL.	: 24.5	RM	: 0	TYPE	: 9055A
MATRIX DENSITY	: 2.68	RM TEMPERATURE	: 0	LOG	: 0
FLUID DENSITY	: 1.0	MATRIX DELTA T	: 173	PLOT	: QUIN 6
NEUTRON MATRIX	: SANDSTONE	FLUID DELTA T	: 690	THRESH	: 2500
REMARKS	:				

VERTICAL HOLE

ALL SERVICES PROVIDED SUBJECT TO CGC STANDARD TERMS AND CONDITIONS



* * * * * * * * * * COMPU-LOG II - VERTICAL DEVIATION * * * * * * * * * * *

CLIENT	: QUINTETTE COAL LTD.	HOLE ID.	: QHR 88009 GAM
FIELD OFFICE	: CALGARY	DATE OF LOG	: 10/08/77
DATA FROM	:	PROBE	: 9055A , 46
MAG. DECL.	: 24.500	DEPTH UNITS	: METER LOG 3

Cable Depth	True Depth	North Dev.	East Dev.	Distance	Azimuth	SANG	SANGB
0.0	0.00	0.00	0.00	0.0	0.0	0.0	0.0
5.0	0.00	0.00	0.00	0.0	0.0	0.0	0.0
10.0	10.00	-.05	-.04	0.1	218.3	2.6	203.9
15.0	14.99	-.27	-.15	0.3	208.0	2.9	209.0
20.0	19.98	-.50	-.26	0.6	207.5	2.6	220.8
25.0	24.98	-.66	-.38	0.8	210.1	2.0	220.9
30.0	29.98	-.78	-.48	0.9	211.6	1.4	223.2
35.0	34.98	-.85	-.57	1.0	213.9	1.4	234.3
40.0	39.98	-.89	-.65	1.1	216.5	1.1	252.1
45.0	44.97	-.89	-.76	1.2	220.4	1.1	258.4
50.0	49.97	-.85	-.86	1.2	225.4	1.1	312.6
55.0	54.97	-.75	-.93	1.2	231.1	1.7	333.6
60.0	59.97	-.58	-.99	1.1	239.5	2.4	345.0
65.0	64.96	-.30	-1.04	1.1	253.7	4.2	352.1
70.0	69.95	0.05	-1.09	1.1	272.6	4.4	355.1
75.0	74.93	0.44	-1.17	1.2	290.9	5.0	349.2
80.0	79.91	0.88	-1.25	1.5	305.2	5.1	348.8
85.0	84.89	1.36	-1.33	1.9	315.7	5.5	352.0
90.0	89.86	1.84	-1.41	2.3	322.6	5.5	349.4
95.0	94.84	2.35	-1.51	2.8	327.3	6.8	351.1
96.6	96.45	2.52	-1.54	2.9	328.6	0.0	0.0

#880 #8

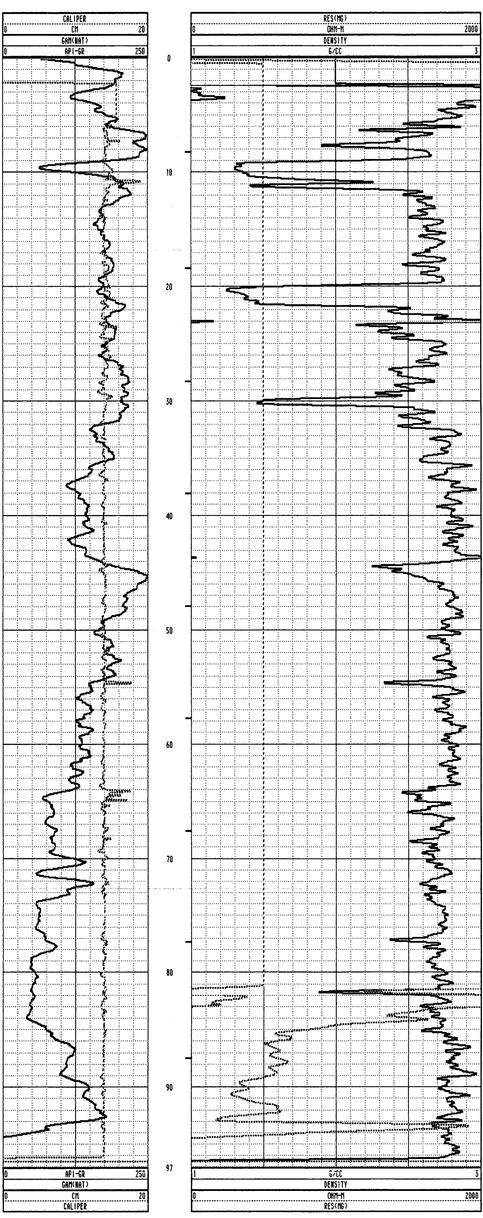
Century

QHR 88009 GAMMA-DENSITY

COMPANY	: QUINTETTE COAL LTD.	OTHER SERVICES:	
WELL	: QHR 88009 GAMMA-DENSITY	GAM.DEN.	
LOCATION/FIELD	: BRL 19900:SL 30830 TRANSFER W	NEUT	
COUNTY	:	RES.CAL	
STATE	: BRITISH COLUMBIA		
SECTION	: TOWNSHIP :	RANGE :	
DATE	: 10/07/77	PERMANENT DATUM : 1550	ELEVATIONS
DEPTH DRILLER	: 97 M	ELEV. PERM. DATUM: 1550	KB : 1550
LOG BOTTOM	: 96.56	LOG MEASURED FROM: 1660	DF : 1550
LOG TOP	: 0.20	DRL MEASURED FROM: 1550	GL : 1550
CASING DRILLER	: 6	LOGGING UNIT : 8401	
CASING TYPE	: STEEL	FIELD OFFICE : CALGARY	
CASING THICKNESS: 0		RECORDED BY : W. STROEBEL	
BIT SIZE	: 15.6	BOREHOLE FLUID : WATER	FILE : ORIGINAL
MAGNETIC DECL.	: 24.5	RM : 0	TYPE : 9030AA
MATRIX DENSITY	: 2.68	RM TEMPERATURE : 0	LOG : 7
FLUID DENSITY	: 1.0	MATRIX DELTA T : 173	PLOT : QUIN 3
NEUTRON MATRIX	: SANDSTONE	FLUID DELTA T : 690	THRESH: 2500
REMARKS	:		

VERTICAL HOLE

ALL SERVICES PROVIDED SUBJECT TO CGC STANDARD TERMS AND CONDITIONS



TOOL CALIBRATION TOOL = 9030AA SERIAL NUMBER = 404

	CAL-DATE	CAL-TIME	SRCE	SENSOR	RESPONSE	STANDARD
0	07/28/88	13:56:46	0	GAM(NAT)	0.000 CPS	0.000 API-GR
1	07/28/88	13:56:46	0	GAM(NAT)	0.000 CPS	0.000 API-GR
2	07/28/88	14:13:46	0	DENSITY	5615.000 CPS	1.106 G/CC
3	07/28/88	14:13:46	0	DENSITY	2230.500 CPS	2.120 G/CC
4	07/28/88	13:56:46	0	RES(MG)	0.000 CPS	0.000 OHM-M
5	07/28/88	13:56:46	0	RES(MG)	0.000 CPS	0.000 OHM-M
6	07/28/88	15:42:06	0	CALIPER	213.400 CPS	7.600 CM
7	07/28/88	15:42:06	0	CALIPER	1842.500 CPS	17.800 CM
8	07/28/88	13:56:46	0	DENSITYM	0.000 CPS	0.000 G/CC
9	07/28/88	13:56:46	0	DENSITYM	0.000 CPS	0.000 G/CC
10	07/28/88	13:56:46	0	CALIPERL	0.000 CPS	0.000 CM
11	07/28/88	13:56:46	0	CALIPERL	0.000 CPS	0.000 CM

#884

Century

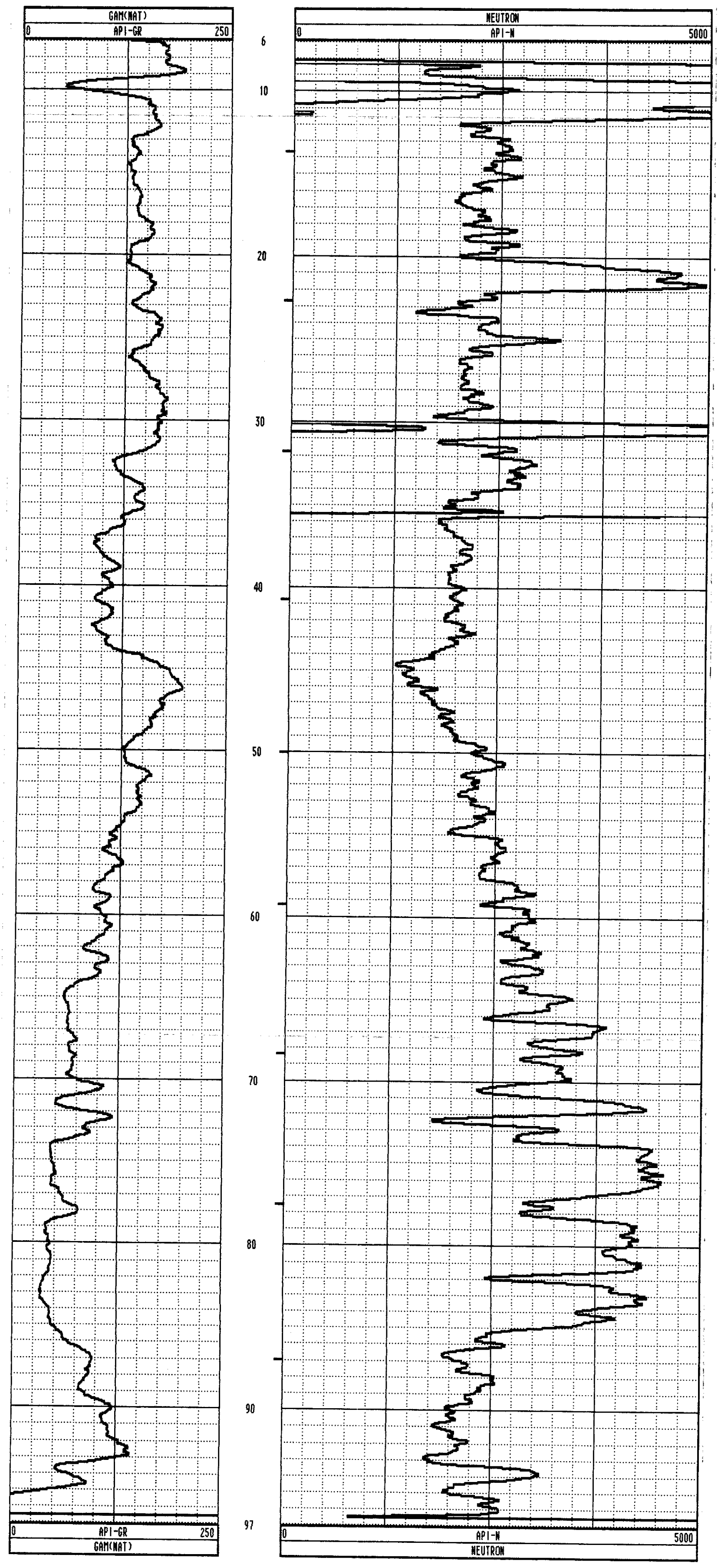
QHR 88009 GAMMA NEUTRON

COMPANY	: QUINTETTE COAL LTD.				
WELL	: QHR 88009 GAMMA NEUTRON				
LOCATION/FIELD	: BRL 19900:SL 30830 TRANSFER W				
COUNTY	:				
STATE	: BRITISH COLUMBIA				
SECTION	:	TOWNSHIP	:	RANGE	:
DATE	: 08/20/88	PERMANENT DATUM	: 1550	ELEVATIONS	
DEPTH DRILLER	: 97 M	ELEV. PERM. DATUM	: 1550	KB	: 1550
LOG BOTTOM	: 96.62	LOG MEASURED FROM	: 1660	DF	: 1550
LOG TOP	: 6.88	DRL MEASURED FROM	: 1550	GL	: 1550
CASING DRILLER	: 6	LOGGING UNIT	: 8401		
CASING TYPE	: STEEL	FIELD OFFICE	: CALGARY		
CASING THICKNESS	: 0	RECORDED BY	: W. STROEBEL		
BIT SIZE	: 15.6	BOREHOLE FLUID	: WATER	FILE	: ORIGINAL
MAGNETIC DECL.	: 24.5	RM	: 0	TYPE	: 9055A
MATRIX DENSITY	: 2.68	RM TEMPERATURE	: 0	LOG	: 6
FLUID DENSITY	: 1.0	MATRIX DELTA T	: 173	PLOT	: QUIN 2
NEUTRON MATRIX	: SANDSTONE	FLUID DELTA T	: 690	THRESH	: 2500
REMARKS	:				

OTHER SERVICES:
GAM.DEN.
NEUT
RES.CAL

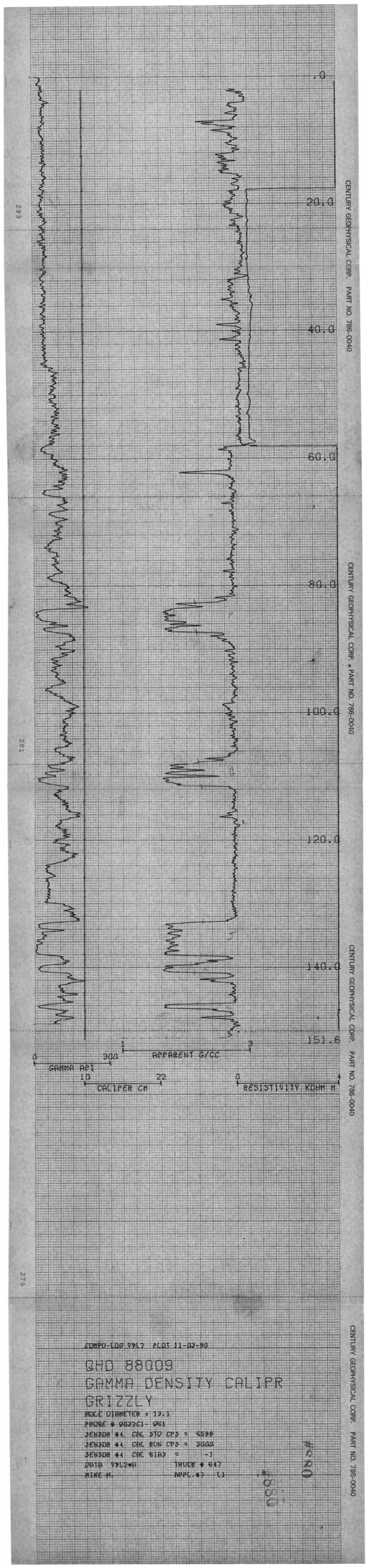
VERTICAL HOLE

ALL SERVICES PROVIDED SUBJECT TO CGC STANDARD TERMS AND CONDITIONS



TOOL CALIBRATION TOOL = 9055A SERIAL NUMBER = 46

	CAL-DATE	CAL-TIME	SRCE	SENSOR	RESPONSE	STANDARD
0	07/28/88	15:07:18	0	GAM(NAT)	0.000 CPS	0.000 API-GR
1	07/28/88	15:07:18	0	GAM(NAT)	0.000 CPS	0.000 API-GR
2	07/28/88	15:20:10	0	POROSITY	0.000 CPS	190.000 CPS
3	07/28/88	15:07:18	0	RES	0.000 CPS	0.000 OHM
4	07/28/88	15:07:18	0	RES	0.000 CPS	0.000 OHM
5	07/28/88	15:07:18	0	SP	0.000 CPS	0.000 MV
6	07/28/88	15:07:18	0	SP	0.000 CPS	0.000 MV
7	07/28/88	15:19:56	0	NEUTRON	0.000 CPS	0.000 API-N
8	07/28/88	15:19:56	0	NEUTRON	190.000 CPS	271.000 API-N


.0
20.0
40.0
60.0
80.0
100.0
120.0
140.0
151.6
1
3
0
300
APPARENT G/CC
GAMMA API
10
22
0
4
CALIPER CM
RESISTIVITY KOHM M
COMPU-LOG V8L2 PLOT 11-03-80
QHD 88009
GAMMA DENSITY CALIPR
GRIZZLY
HOLE DIAMETER = 13.1
PROBE # 80326C1- 961
SENSOR #1 CAC STD CPS = 5588
SENSOR #1 CAC RUN CPS = 3000
SENSOR #1 CAC BIAS = -1
DATA V8L2WA TRUCK # 647
MIKE M. APPL.#2 [1]
#880
CENTURY GEOPHYSICAL CORP. PART NO. 786-0040
CENTURY GEOPHYSICAL CORP. PART NO. 786-0040
CENTURY GEOPHYSICAL CORP. PART NO. 786-0040
CENTURY GEOPHYSICAL CORP. PART NO. 786-0040
283
281
279

VERTICAL DEVIATION

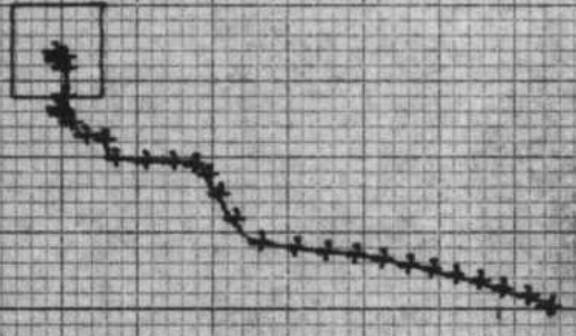
COMPU-LOG V8() DEVIATION
DATA FROM : V8C2#A

CLIENT : GAMMA NEUTRON DEV.
LOCATION : GRIZZLY
HOLE ID : QHD 88009
DATE OF LOG : 11-03-80
PROBE : 9055A 0054

SCALE: .25 M/DIV
MAG DECL: 21.5
TRUE DEPTH: 151.6 M
AZIMUTH: 117.8
DISTANCE: 1.85 M

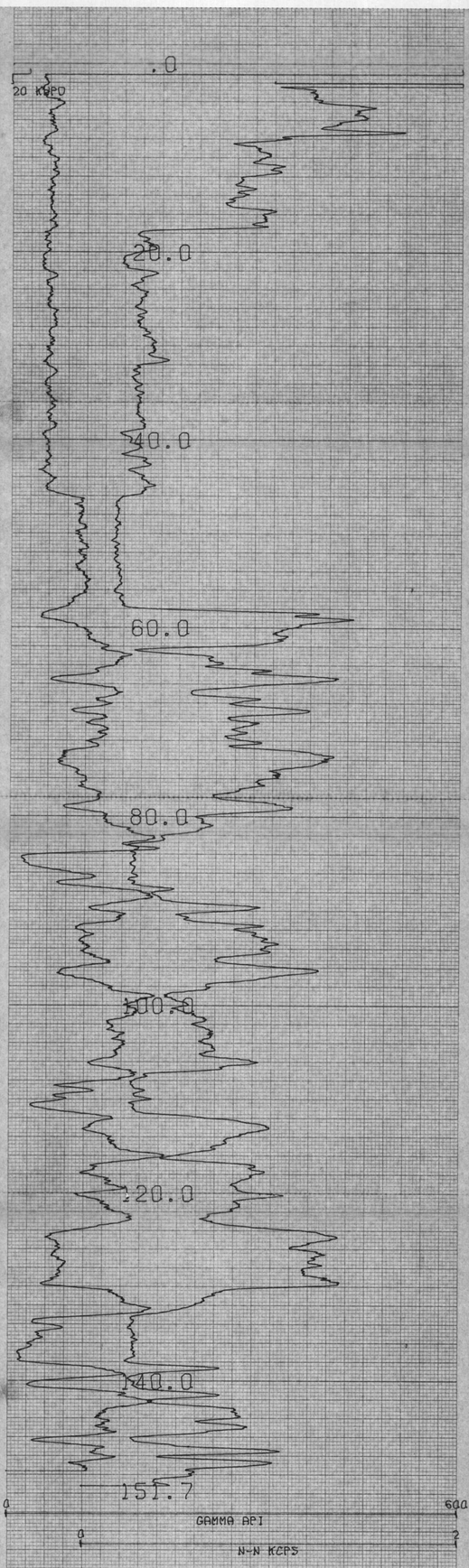
+ = 5.0 M INCR
Δ = TOP OF ZONE
o = BOTTOM OF ZONE

TRUE NORTH ↑



#880

HYSICAL CORP. PART NO. 786-0040



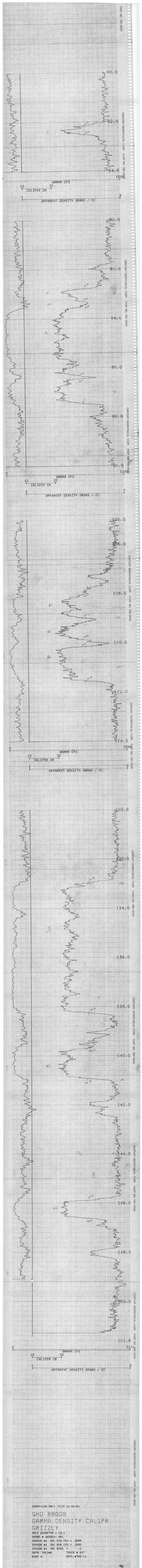
COMPU-LOG VBL2 PLOT 11-03-80

QHD 88009
GAMMA NEUTRON DEV.
GRIZZLY

HOLE DIAMETER : 13.1
PROBE # 0055A - 054
SENSOR #4 CAL STD CPS = 152
SENSOR #4 CAL RUN CPS = 186
SENSOR #4 CAL BIAS = 0
DATA VBL2*A TRUCK # 647
MIKE H. APPL.#7 [1

#880

CENTURY GEOPHYSICAL CORP. PART NO. 786-0040
CENTURY GEOPHYSICAL CORP. PART NO. 786-0040
CENTURY GEOPHYSICAL CORP. PART NO. 786-0040
CENTURY GEOP

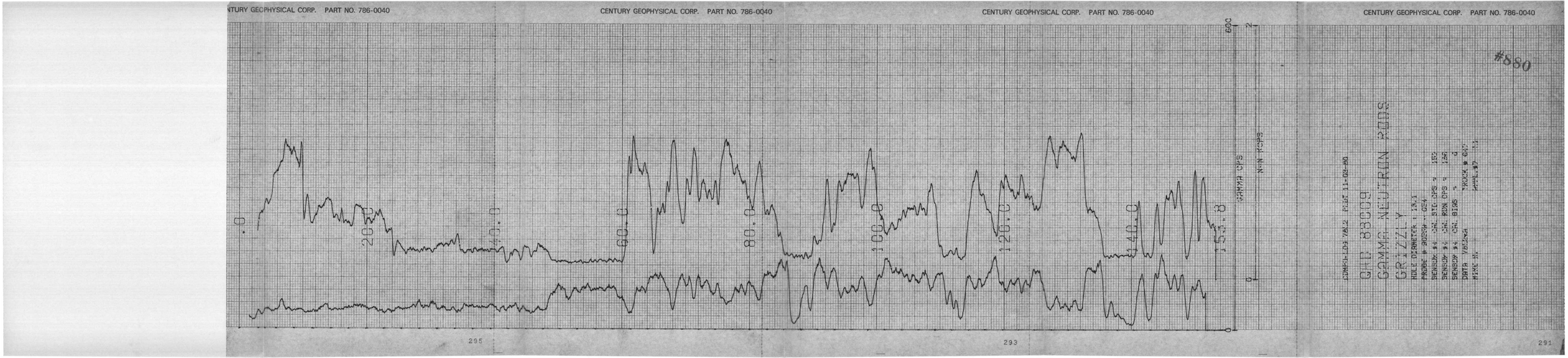


COMPU-LOG VAL1 PLOT 11-13-83

QHD 88009
GAMMA DENSITY CALIPR
GRIZZLY

HOLE DIAMETER = 13.1
PROBE # 2007C1- 081
SENSOR #4 CAL STD CPS = 6598
SENSOR #4 CAL PSN CPS = 5000
SENSOR #4 CAL RIGS = -1
DATA VALUES TRACK # 647
MODE H. APPL.#TOR L1

#880


CENTURY GEOPHYSICAL CORP. PART NO. 786-0040
CENTURY GEOPHYSICAL CORP. PART NO. 786-0040
CENTURY GEOPHYSICAL CORP. PART NO. 786-0040
CENTURY GEOPHYSICAL CORP. PART NO. 786-0040
#880
GAMMA CPS
N-N KCPS
0
600
2
0
20.0
40.0
60.0
80.0
100.0
120.0
140.0
GAMMA NEUTRON RODS
GRIZZLY
HOLE DIAMETER : 13.1
PROBE # 90259 - 054
SENSOR #4 CAL STD CPS = 152
SENSOR #4 CAL RUN CPS = 136
SENSOR #4 CAL BIAS = 6
DATA VALIDA TROCK # 647
MIKE N. APPL.#7 N.1
295
293
291

CENTURY GEOPHYSICAL CORPORATION

* * * * * * * * VERTICAL DEVIATION * * * * * * * *

COMPU-LOG VSLI DEVIATION

CLIENT : GAMMA NEUTRON DEV. HOLE ID : OHD 88009

LOCATION : GRIZZLY DATE OF LOG : 11-03-88

DATA FROM : VSL2*A PROBE : 9055A 0054

#80

TD = TOTAL DEPTH
T = TOP OF ZONE
B = BOTTOM OF ZONE

	DEPTH	TRUE DEPTH	NORTH DEV	EAST DEV	DISTANCE	AZIMUTH	SA	SAB
	.00	.00	.00	.00	.00	.0	.0	.0
	5.00	4.99	-.02	.00	.02	172.4	.3	172.3
	10.00	9.99	-.01	.01	.02	138.8	.1	45.1
	15.00	14.99	-.01	.02	.03	123.6	.1	95.1
	20.00	19.99	-.05	.03	.06	148.9	.4	170.5
	25.00	24.99	-.14	.03	.14	168.1	1.0	181.1
	30.00	29.99	-.19	.02	.19	173.8	.5	190.6
	35.00	34.99	-.18	.01	.18	176.2	.1	308.7
	40.00	39.99	-.20	.02	.20	173.4	.2	147.7
	45.00	44.99	-.23	.05	.23	167.4	.4	133.0
	50.00	49.99	-.27	.10	.29	159.4	.7	130.6
	55.00	54.99	-.29	.16	.33	150.8	.6	103.7
	60.00	59.98	-.35	.20	.40	150.1	.8	146.8
	65.00	64.98	-.36	.29	.46	140.7	1.0	95.7
	70.00	69.98	-.36	.38	.52	133.6	.9	91.7
	75.00	74.98	-.37	.45	.58	129.5	.7	97.3
	80.00	79.98	-.40	.49	.64	129.3	.6	127.1
	85.00	84.98	-.47	.53	.71	131.3	.8	149.2
	90.00	89.98	-.55	.58	.80	133.4	1.1	148.6
	95.00	94.98	-.63	.67	.92	133.2	1.3	132.3
	100.00	99.98	-.65	.79	1.02	129.5	1.3	99.4
	105.00	104.98	-.66	.89	1.11	126.7	1.1	97.2
	110.00	109.97	-.67	.98	1.19	124.2	1.1	95.2
	115.00	114.97	-.68	1.07	1.27	122.6	1.0	100.0
	120.00	119.97	-.70	1.16	1.36	121.3	1.0	102.2
	125.00	124.97	-.72	1.24	1.43	120.2	.9	101.1
	130.00	129.97	-.74	1.31	1.51	119.4	.8	104.3
	135.00	134.97	-.76	1.39	1.59	118.6	.9	103.5
	140.00	139.97	-.78	1.47	1.67	118.1	.9	107.8
	145.00	144.97	-.81	1.55	1.75	117.5	.9	107.1
	150.00	149.97	-.84	1.63	1.83	117.4	.9	114.2
TD	151.60	151.57	-.86	1.64	1.85	117.8	.9	152.6

CGC #880

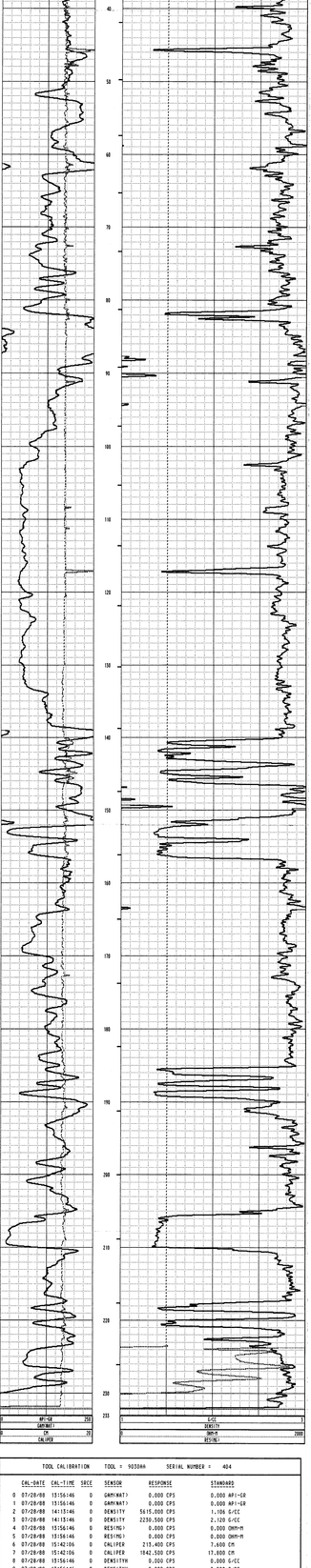
Century

QHR 88010 GAMMA-DENSITY

COMPANY	: QUINTETTE COAL LTD.			OTHER SERVICES:	
WELL	: QHR 88010 GAMMA-DENSITY			GAMDEN.	
LOCATION/FIELD	: BL 1990015L 30850/TRANSFER W			NEUT.RES	
COUNTY	:			RES.CAL	
STATE	: BRITISH COLUMBIA				
SECTION	:	TOWNSHIP	:	RANGE	:
DATE	: 08/22/88	PERMANENT DATUM	: 1550	ELEVATIONS	
DEPTH DRILLER	: 236 M	ELEV. PERM. DATUM:	1550	KB	: 1550
LOG BOTTOM	: 232.22	LOG MEASURED FROM:	1550	DF	: 1550
LOG TOP	: 0.16	DRL MEASURED FROM:	1550	GL	: 1550
CASING DRILLER	: 6	LOGGING UNIT	: 8401		
CASING TYPE	: STEEL	FIELD OFFICE	: CALGARY		
CASING THICKNESS: 0		RECORDED BY	: G. MURPHY		
BIT SIZE	: 15.6	BOREHOLE FLUID	: WATER	FILE	: ORIGINAL
MAGNETIC DECL.	: 24.5	RM	: 0	TYPE	: 9030AA
MATRIX DENSITY	: 2.69	RM TEMPERATURE	: 0	LOG	: 9
FLUID DENSITY	: 1.0	MATRIX DELTA T	: 173	PLOT	: QUIK 5
NEUTRON MATRIX	: SANDSTONE	FLUID DELTA T	: 690	THRESH:	2500
REMARKS	:				

ANGLE HOLE AZIMUTH 217 INCLINATION 60

ALL SERVICES PROVIDED SUBJECT TO CGC STANDARD TERMS AND CONDITIONS



TOOL CALIBRATION TOOL = 9030AA SERIAL NUMBER = 404

	CAL-DATE	CAL-TIME	SRCE	SENSOR	RESPONSE	STANDARD
0	07/28/88	13:56:46	0	GAMMAAT)	0.000 CPS	0.000 API-GR
1	07/28/88	13:56:46	0	GAMMAAT)	0.000 CPS	0.000 API-GR
2	07/28/88	14:13:46	0	DENSITY	5615.000 CPS	1.106 G/CC
3	07/28/88	14:13:46	0	DENSITY	2230.500 CPS	2.120 G/CC
4	07/28/88	13:56:46	0	RESYNC)	0.000 CPS	0.000 OHM-M
5	07/28/88	13:56:46	0	RESYNC)	0.000 CPS	0.000 OHM-M
6	07/28/88	15:42:06	0	CALIPER	213.400 CPS	7.600 CM
7	07/28/88	15:42:06	0	CALIPER	1042.500 CPS	17.800 CM
8	07/28/88	13:56:46	0	DENSITYM	0.000 CPS	0.000 G/CC
9	07/28/88	13:56:46	0	DENSITYM	0.000 CPS	0.000 G/CC
10	07/28/88	13:56:46	0	CALIPERL	0.000 CPS	0.000 CM
11	07/28/88	13:56:46	0	CALIPERL	0.000 CPS	0.000 CM

Century

CBL GR/CCL GAMMA/SENSITI

COMPANY : ROCKPOINT GAS, LTD.
WELL : MPC HORIZ 4H&5H/6H&7H/8H
FIELD : MARCELLUS SHALE
COUNTY : ANTRIM STATE PA
API # : 37-015-23148-00

SURFACE LOCATION : 1900 FSL & 1900 FWL
SECTION : 10 TWP : 18N RGE : 5E
ELEVATION : KB : 1,000' GL : 980'

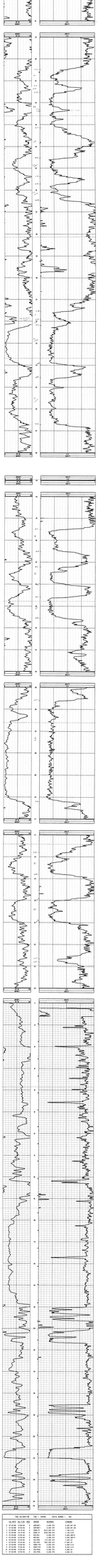
DATE : 09/22/09
RUN NUMBER : ONE
DEPTH DRILLER : 7,750
DEPTH LOGGER : 7,751
BOTTOM LOG INTERVAL : 7,751
TOP LOG INTERVAL : 0
CASING DRILLER : 13 3/8" @ 40'
CASING LOGGER : 13 3/8" @ 40'
BIT SIZE : 12 1/4"
TYPE FLUID IN HOLE : AIR
DENSITY / VISC : 0.0 #
PH / FLUID LOSS : 0.0 / 0.0
SOURCE OF SAMPLE : SURFACE
RM @ MEAS TEMP : 0.00@0.00F
RMF @ MEAS TEMP : 0.00@0.00F
RMC @ MEAS TEMP : 0.00@0.00F
SOURCE RMF / RMC : 0.00 / 0.00
RM @ BHT : 0.00@0.00F

TIME SINCE CIRC : 0 HRS
MAX REC TEMP : 0.00F
EQUIP. LOCATION : 0
RECORDED BY : 0
WITNESSED BY : 0

BOREHOLE RECORD
BIT #1 FROM : 0 TO : 7,751 SIZE : 12 1/4"
BIT #2 FROM : 0 TO : 7,751 SIZE : 8 3/4"

CASING RECORD
SURFACE STRING : SIZE : 13 3/8" WEIGHT : 54.5#/FT GRADE : J-55 SET @ : 40' HOLE SIZE : 17 1/2" CEMENTED WITH : 40 SACKS
PRODUCTION STRING : SIZE : 5 1/2" WEIGHT : 20#/FT GRADE : P-110 SET @ : 7,751' HOLE SIZE : 8 3/4" CEMENTED WITH : 1,000 SACKS

REMARKS :
- RUN 1 HOLE RECORDED FIRST AND LOGGED ON WAY OUT OF HOLE FOR CEMENT QUALITY DUE TO CEMENTING TOOLS HAVE BEEN LEFT IN HOLE



TOOL STRING (TOP TO BOTTOM)

TOOL TYPE	SERIAL NUMBER	OD	LENGTH
CCL-GR-CBL-SENSITIVITY	0000-CBL-SEN	3.625 IN	0.00 FT
CCL-GR-CBL-SENSITIVITY	0000-CBL-SEN	3.625 IN	0.00 FT
CCL-GR-CBL-SENSITIVITY	0000-CBL-SEN	3.625 IN	0.00 FT
CCL-GR-CBL-SENSITIVITY	0000-CBL-SEN	3.625 IN	0.00 FT
CCL-GR-CBL-SENSITIVITY	0000-CBL-SEN	3.625 IN	0.00 FT
CCL-GR-CBL-SENSITIVITY	0000-CBL-SEN	3.625 IN	0.00 FT
CCL-GR-CBL-SENSITIVITY	0000-CBL-SEN	3.625 IN	0.00 FT
CCL-GR-CBL-SENSITIVITY	0000-CBL-SEN	3.625 IN	0.00 FT

#880

Century

QHR 88010 GAMMA-NEUTRON

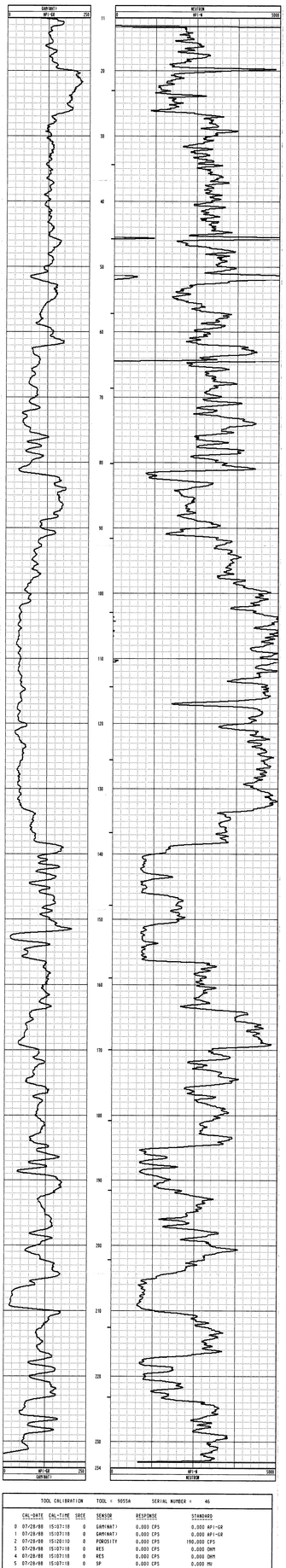
COMPANY	: QUINTETTE COAL LTD.	OTHER SERVICES:	
WELL	: QHR 88010 GAMMA-NEUTRON	GAM.DEN.	
LOCATION/FIELD	: BL 1990D:SL 30830/TRANSFER W	NEUT.RES	
COUNTY	:	RES.CAL	
STATE	: BRITISH COLUMBIA		
SECTION	:	TOWNSHIP :	RANGE :

DATE	: 08/22/88	PERMANENT DATUM	: 1550	ELEVATIONS	
DEPTH DRILLER	: 236 M	ELEV. PERM. DATUM:	1550	KB	: 1550
LOG BOTTOM	: 233.22	LOG MEASURED FROM:	1550	DF	: 1550
LOG TOP	: 11.94	DRL MEASURED FROM:	1550	GL	: 1550
CASING DRILLER	: 6	LOGGING UNIT	: 8401		
CASING TYPE	: STEEL	FIELD OFFICE	: CALGARY		
CASING THICKNESS:	0	RECORDED BY	: G. MURPHY		

BIT SIZE	: 15.6	BOREHOLE FLUID	: WATER	FILE	: ORIGINAL
MAGNETIC DECL.	: 24.5	RM	: 0	TYPE	: 9055A
MATRIX DENSITY	: 2.68	RM TEMPERATURE	: 0	LOG	: 8
FLUID DENSITY	: 1.0	MATRIX DELTA T	: 173	PLOT	: QUIN 2
NEUTRON MATRIX	: SANDSTONE	FLUID DELTA T	: 690	THRESH:	2500
REMARKS	:				

ANGLE HOLE AZIMUTH 217 INCLINATION 60

ALL SERVICES PROVIDED SUBJECT TO CGC STANDARD TERMS AND CONDITIONS



TOOL CALIBRATION TOOL : 9055A SERIAL NUMBER : 46

	CAL-DATE	CAL-TIME	SRCE	SENSOR	RESPONSE	STANDARD
0	07/28/88	15:07:18	0	GAMMA(NAT)	0.000 CPS	0.000 API-GR
1	07/28/88	15:07:18	0	GAMMA(NAT)	0.000 CPS	0.000 API-GR
2	07/28/88	15:20:10	0	POROSITY	0.000 CPS	190.000 CPS
3	07/28/88	15:07:18	0	RES	0.000 CPS	0.000 OHM
4	07/28/88	15:07:18	0	RES	0.000 CPS	0.000 OHM
5	07/28/88	15:07:18	0	SP	0.000 CPS	0.000 MU
6	07/28/88	15:07:18	0	SP	0.000 CPS	0.000 MU
7	07/28/88	15:19:56	0	NEUTRON	0.000 CPS	0.000 API-N
8	07/28/88	15:19:56	0	NEUTRON	190.000 CPS	271.000 API-N

CGC

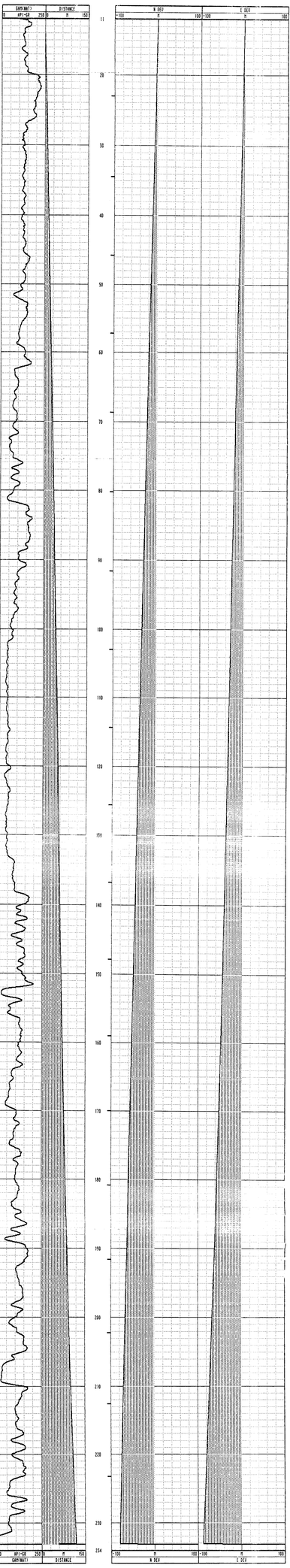
Century #880

QHR 88009 DEVIATION

COMPANY	: QUINTETTE COAL LTD.	OTHER SERVICES:	
WELL	: QHR 88009 DEVIATION	GAMLGEN.	
LOCATION/FIELD	: BL 199D015L 30D30/TRANSFER W	NEUT.RES	
COUNTY	:	RES.CAL	
STATE	: BRITISH COLUMBIA		
SECTION	: TOWNSHIP :	RANGE :	
DATE	: 08/22/88	PERMANENT DATUM : 1550	ELEVATIONS
DEPTH DRILLER	: 236 M	ELEV. PERM. DATUM: 1550	KB : 1550
LOG BOTTOM	: 233.22	LOG MEASURED FROM: 1550	DF : 1550
LOG TOP	: 11.94	DRL MEASURED FROM: 1550	GL : 1550
CASING DRILLER	: 6	LOGGING UNIT : 8401	
CASING TYPE	: STEEL	FIELD OFFICE : CALGARY	
CASING THICKNESS: 0		RECORDED BY : G. MURPHY	
BIT SIZE	: 15.6	BOREHOLE FLUID : WATER	FILE : PROCESSED
MAGNETIC DECL.	: 24.500	RM : 0	TYPE : 9055A
MATRIX DENSITY	: 2.68	RM TEMPERATURE : 0	LOG : E
FLUID DENSITY	: 1.0	MATRIX DELTA T : 173	PLOT : QUIN 6
NEUTRON MATRIX	: SANDSTONE	FLUID DELTA T : 690	THRESH: 2500
REMARKS	:		

ANGLE HOLE AZIMUTH 217 INCLINATION 60

ALL SERVICES PROVIDED SUBJECT TO CGC STANDARD TERMS AND CONDITIONS



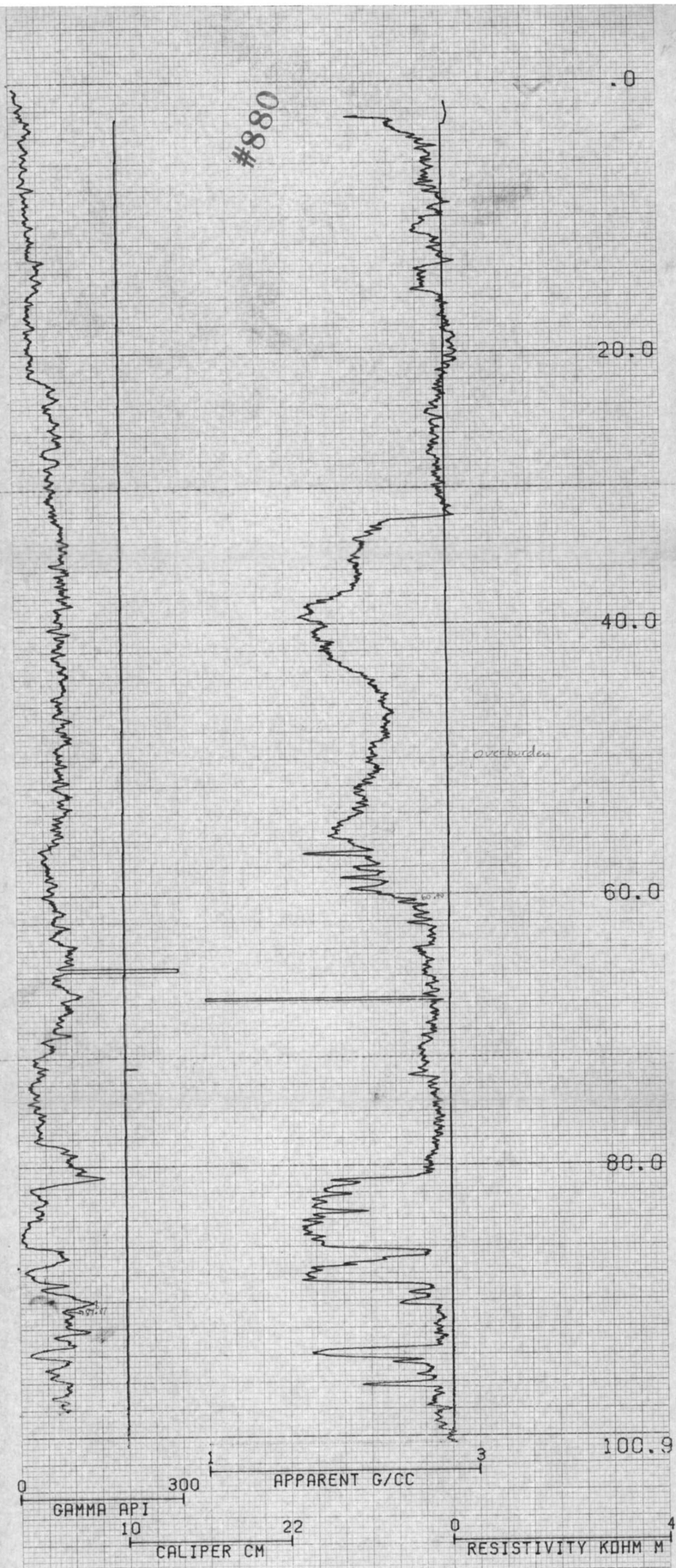
* * * * * * * * * * COMPU-LOG II - VERTICAL DEVIATION * * * * * * * * * * *

CLIENT : QUINTETTE COAL LTD.
FIELD OFFICE : CALGARY
DATA FROM :
MAG. DECL. : 24.500

HOLE ID. : QHR 880~~09~~10 GAM
DATE OF LOG : 08/22/88
PROBE : 9055A , 46
DEPTH UNITS : METER LOG 5

#880

Cable Depth	True Depth	North Dev.	East Dev.	Distance	Azimuth	SANG	SANGB
11.0	0.00	0.00	0.00	0.0	0.0	0.0	0.0
16.0	15.61	-1.08	-.83	1.4	217.5	31.8	224.6
21.0	19.85	-3.07	-2.44	3.9	218.5	31.9	205.3
26.0	24.09	-5.10	-4.11	6.6	218.9	32.0	222.1
31.0	28.33	-7.11	-5.78	9.2	219.1	32.3	233.5
36.0	32.59	-9.11	-7.38	11.7	219.0	30.9	218.4
41.0	36.86	-11.04	-9.06	14.3	219.4	31.6	217.6
46.0	41.13	-13.04	-10.72	16.9	219.4	30.9	219.1
51.0	45.40	-15.02	-12.39	19.5	219.5	31.3	219.3
56.0	49.68	-17.00	-14.06	22.1	219.6	30.9	218.1
61.0	53.97	-18.95	-15.72	24.6	219.7	30.6	218.8
66.0	58.26	-20.73	-17.39	27.1	220.0	30.9	220.9
71.0	62.59	-22.54	-18.94	29.4	220.0	30.2	222.7
76.0	66.91	-24.44	-20.57	31.9	220.1	30.1	223.9
81.0	71.25	-26.31	-22.22	34.4	220.2	29.3	~~175.1~~
86.0	75.58	-27.91	-23.92	36.8	220.6	30.4	222.0
91.0	79.92	-29.72	-25.51	39.2	220.6	28.9	222.3
96.0	84.31	-31.55	-27.05	41.6	220.6	28.5	218.8
101.0	88.72	-33.32	-28.55	43.9	220.6	28.7	222.5
106.0	93.12	-35.09	-30.12	46.2	220.6	28.1	222.3
111.0	97.54	-36.83	-31.67	48.6	220.7	27.8	218.2
116.0	101.98	-38.53	-33.22	50.9	220.8	27.4	223.3
121.0	106.42	-40.15	-34.71	53.1	220.8	27.2	~~198.9~~
126.0	110.89	-41.66	-36.12	55.1	220.9	26.9	~~231.9~~
131.0	115.36	-43.12	-37.57	57.2	221.1	24.5	182.8
136.0	119.82	-44.61	-39.16	59.4	221.3	28.1	~~209.0~~
141.0	124.26	-46.30	-40.70	61.6	221.3	28.2	227.9
146.0	128.66	-47.94	-42.38	64.0	221.5	29.6	228.1
151.0	133.02	-49.61	-44.17	66.4	221.7	30.7	228.0
156.0	137.32	-51.32	-46.03	68.9	221.9	31.8	235.0
161.0	141.58	-53.07	-47.93	71.5	222.1	32.5	~~222.7~~
166.0	145.77	-54.84	-50.01	74.2	222.4	33.7	~~247.0~~
171.0	149.92	-56.54	-52.20	77.0	222.7	34.3	241.1
176.0	154.03	-58.27	-54.45	79.7	223.1	35.3	238.2
181.0	158.08	-59.98	-56.82	82.6	223.4	36.8	239.0
186.0	162.05	-61.69	-59.30	85.6	223.9	37.9	~~228.7~~
191.0	165.95	-63.48	-61.86	88.6	224.3	39.4	228.4
196.0	169.75	-65.25	-64.57	91.8	224.7	42.2	~~245.0~~
201.0	173.43	-67.13	-67.37	95.1	225.1	43.8	238.9
206.0	176.97	-69.10	-70.28	98.6	225.5	45.9	239.6
211.0	180.41	-71.03	-73.35	102.1	225.9	46.9	245.0
216.0	183.73	-73.06	-76.45	105.7	226.3	49.4	242.1
221.0	186.93	-75.00	-79.75	109.5	226.8	50.7	238.3
226.0	190.04	-76.99	-83.12	113.3	227.2	52.1	240.9
231.0	193.11	-78.92	-86.54	117.1	227.6	52.4	234.5
233.2	194.47	-79.72	-88.05	118.8	227.8	0.0	0.0



CENTURY GEOPHYSICAL CORP. PART NO. 786-0040

CENTURY GEOPHYSICAL CORP. PART NO. 786-0040

CENTURY GEOPHYSICAL CORP. P

383

COMPU-LOG V8L2 PLOT 11-09-80

#880

QHD 88011

GAMMA DENSITY CALIPR

GRIZZLY

HOLE DIAMETER : 13.1

PROBE # 9032C1- 961

SENSOR #4 CAL STD CPS = 7127

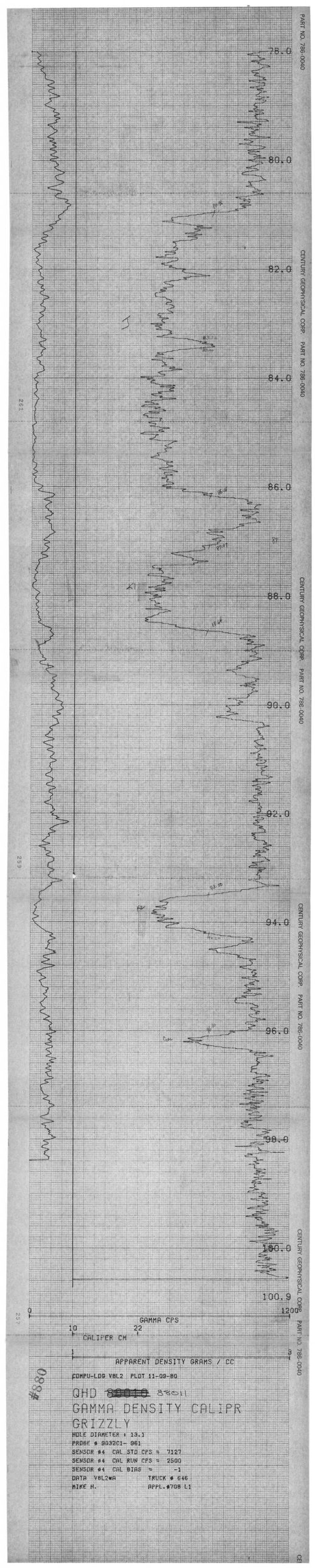
SENSOR #4 CAL RUN CPS = 2500

SENSOR #4 CAL BIAS = -1

DATA V8L2*A TRUCK # 646

MIKE H. APPL.#30 L1

38

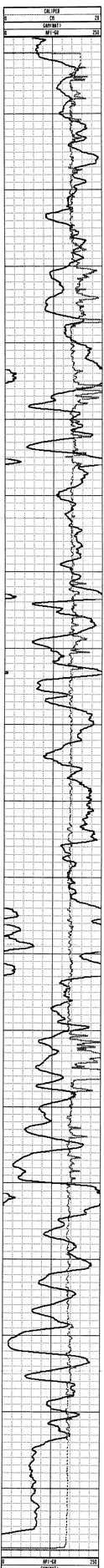

PART NO. 786-0040
CENTURY GEOPHYSICAL CORP.
78.0
80.0
82.0
84.0
86.0
88.0
90.0
92.0
94.0
96.0
98.0
100.0
100.9
0
1200
GAMMA CPS
10
22
CALIPER CM
1
3
APPARENT DENSITY GRAMS / CC
COMPU-LOG V8L2 PLOT 11-09-80
#880
QHD 88011
GAMMA DENSITY CALIPR
GRIZZLY
HOLE DIAMETER = 13.1
PROBE # 8032C1- 961
SENSOR #4 CAL STD CPS = 7127
SENSOR #4 CAL RUN CPS = 2500
SENSOR #4 CAL BIAS = -1
DATA V8L2WA TRUCK # 646
MIKE H. APPL.#708 L1

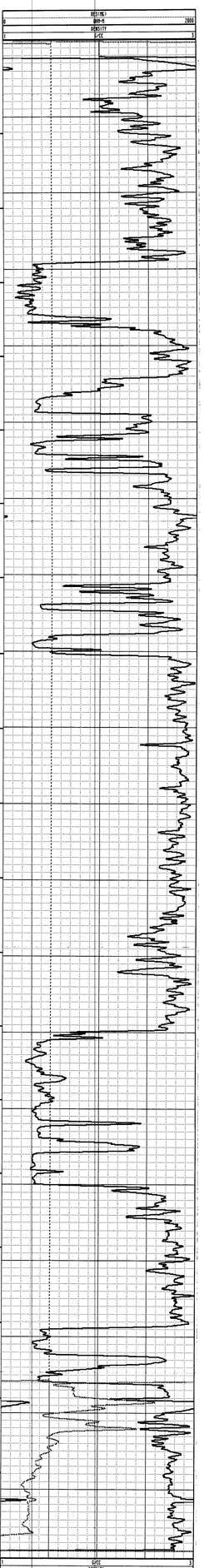
#880 Century

QHR 88011 GAMMA-DENSITY

COMPANY	: QUINTETTE COAL LTD.			OTHER SERVICES:	
WELL	: QHR 88011 GAMMA-DENSITY			GAM.DEN.	
LOCATION/FIELD	: BL 2115@15L 28300 TRANSFER W			NEUT.RES	
COUNTY	:			CAL.DEV	
STATE	: BRITISH COLUMBIA				
SECTION	:	TOWNSHIP	:	RANGE :	
DATE	: 08/25/88	PERMANENT DATUM	: 1590	ELEVATIONS	
DEPTH DRILLER	: 202.2	ELEV. PERM. DATUM:	1590	KB : 1590	
LOG BOTTOM	: 198.20	LOG MEASURED FROM:	1590	DF : 1590	
LOG TOP	: 0.12	DRL MEASURED FROM:	1590	GL : 1590	
CASING DRILLER	: 5	LOGGING UNIT	: 8401		
CASING TYPE	: STEEL	FIELD OFFICE	: CALGARY		
CASING THICKNESS: 0		RECORDED BY	: G. MURPHY		
BIT SIZE	: 15.6	BOREHOLE FLUID	: WATER	FILE : ORIGINAL	
MAGNETIC DECL.	: 24.500	RM	: 0	TYPE : 9030AA	
MATRIX DENSITY	: 2.68	RM TEMPERATURE	: 0	LOG : 1	
FLUID DENSITY	: 1.0	MATRIX DELTA T	: 173	PLOT : QUIN 3	
NEUTRON MATRIX	: SANDSTONE	FLUID DELTA T	: 690	THRESH: 2500	

REMARKS :
ANGLE HOLE AZIMUTH 217 INCLINATION 60
ANGLE HOLE AZIMUTH 217 INCLINATION 60
ALL SERVICES PROVIDED SUBJECT TO CGC STANDARD TERMS AND CONDITIONS





TOOL CALIBRATION

TOOL = 9030AA SERIAL NUMBER = 404

	CAL-DATE	CAL-TIME	SECS	SENSOR	RESPONSE	STANDARD
0	07/28/88	13:56:46	0	GAMMAR7	0.000 CPS	0.000 API-GR
1	07/28/88	13:56:46	0	GAMMAR7	0.000 CPS	0.000 API-GR
2	07/28/88	14:13:46	0	DENSITY	5615.000 CPS	1.106 G/CC
3	07/28/88	14:13:46	0	DENSITY	2230.500 CPS	2.120 G/CC
4	07/28/88	13:56:46	0	RESITM3	0.000 CPS	0.000 OHM-M
5	07/28/88	13:56:46	0	RESITM3	0.000 CPS	0.000 OHM-M
6	07/28/88	15:42:06	0	CALIPER	213.400 CPS	7.600 CM
7	07/28/88	15:42:06	0	CALIPER	1842.500 CPS	17.800 CM
8	07/28/88	13:56:46	0	DENSITYH	0.000 CPS	0.000 G/CC
9	07/28/88	13:56:46	0	DENSITYH	0.000 CPS	0.000 G/CC
10	07/28/88	13:56:46	0	CALIPERL	0.000 CPS	0.000 CM
11	07/28/88	13:56:46	0	CALIPERL	0.000 CPS	0.000 CM

Century #000

QHR 88011 GAMMA-DENSITY

COMPANY	: QUINTETTE COAL LTD.			OTHER SERVICES: GAM.DEN. NEUT.RES CAL.DEV	
WELL	: QHR 88011 GAMMA-DENSITY				
LOCATION/FIELD	: BL 21150:SL 28300 TRANSFER W				
COUNTY	:				
STATE	: BRITISH COLUMBIA				
SECTION	:	TOWNSHIP	:	RANGE	:
DATE	: 08/25/88	PERMANENT DATUM	: 1590	ELEVATIONS	
DEPTH DRILLER	: 202.2	ELEV. PERM. DATUM	: 1590	KB	: 1590
LOG BOTTOM	: 198.20	LOG MEASURED FROM	: 1590	DF	: 1590
LOG TOP	: 0.12	DRL MEASURED FROM	: 1590	GL	: 1590
CASING DRILLER	: 5	LOGGING UNIT	: 8401		
CASING TYPE	: STEEL	FIELD OFFICE	: CALGARY		
CASING THICKNESS	: 0	RECORDED BY	: G. MURPHY		
BIT SIZE	: 15.6	BOREHOLE FLUID	: WATER	FILE	: ORIGINAL
MAGNETIC DECL.	: 24.500	RM	: 0	TYPE	: 9030AA
MATRIX DENSITY	: 2.68	RM TEMPERATURE	: 0	LOG	: 0
FLUID DENSITY	: 1.0	MATRIX DELTA T	: 173	PLOT	: QUIN 5
NEUTRON MATRIX	: SANDSTONE	FLUID DELTA T	: 690	THRESH	: 2500
REMARKS	:				

ANGLE HOLE AZIMUTH 217 INCLINATION 60
ANGLE HOLE AZIMUTH 217 INCLINATION 60

ALL SERVICES PROVIDED SUBJECT TO CGC STANDARD TERMS AND CONDITIONS

TOOL CALIBRATION TOOL = 9030AA SERIAL NUMBER = 404

	CAL-DATE	CAL-TIME	SRCE	SENSOR	RESPONSE	STANDARD
0	07/28/88	13:56:46	0	GAM(NAT)	0.000 CPS	0.000 API-GR
1	07/28/88	13:56:46	0	GAM(NAT)	0.000 CPS	0.000 API-GR
2	07/28/88	14:13:46	0	DENSITY	5615.000 CPS	1.106 G/CC
3	07/28/88	14:13:46	0	DENSITY	2230.500 CPS	2.120 G/CC
4	07/28/88	13:56:46	0	RES(MG)	0.000 CPS	0.000 OHM-M
5	07/28/88	13:56:46	0	RES(MG)	0.000 CPS	0.000 OHM-M
6	07/28/88	15:42:06	0	CALIPER	213.400 CPS	7.600 CM
7	07/28/88	15:42:06	0	CALIPER	1842.500 CPS	17.800 CM
8	07/28/88	13:56:46	0	DENSITYH	0.000 CPS	0.000 G/CC
9	07/28/88	13:56:46	0	DENSITYH	0.000 CPS	0.000 G/CC
10	07/28/88	13:56:46	0	CALIPERL	0.000 CPS	0.000 CM
11	07/28/88	13:56:46	0	CALIPERL	0.000 CPS	0.000 CM

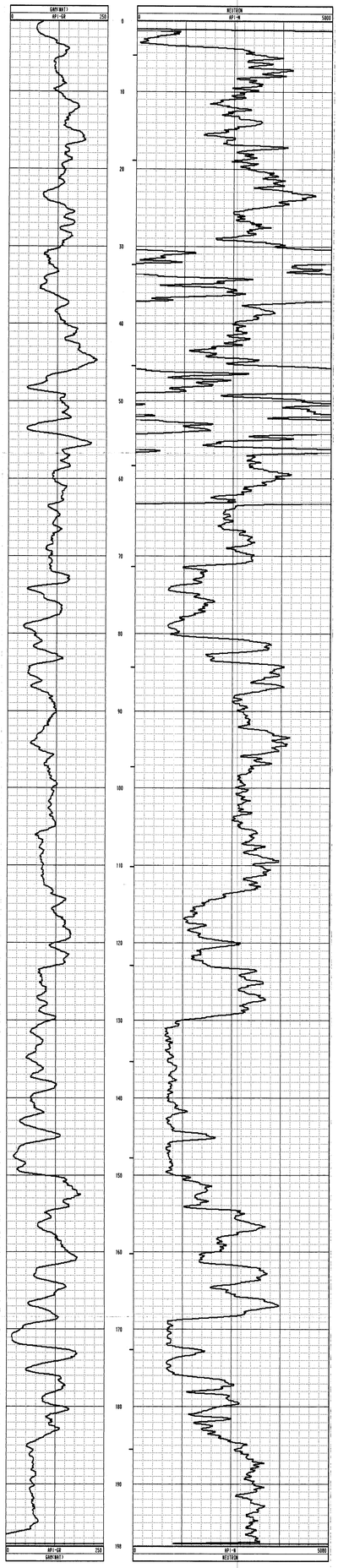
Century

QHR 88011 GAMMA-NEUTRON

COMPANY	: QUINTETTE COAL LTD.			OTHER SERVICES:	
WELL	: QHR 88011 GAMMA-NEUTRON			GAM.DEN.	
LOCATION/FIELD	: BL 21150:SL 28300 TRANSFER W			NEUT.RES	
COUNTY	:			CAL.DEV	
STATE	: BRITISH COLUMBIA				
SECTION	:	TOWNSHIP	:	RANGE	:
DATE	: 08/25/88	PERMANENT DATUM	: 1590	ELEVATIONS	
DEPTH DRILLER	: 202.2	ELEV. PERM. DATUM:	1590	KB	: 1590
LOG BOTTOM	: 197.82	LOG MEASURED FROM:	1590	DF	: 1590
LOG TOP	: 0.72	DRL MEASURED FROM:	1590	GL	: 1590
CASING DRILLER	: S	LOGGING UNIT	: 8401		
CASING TYPE	: STEEL	FIELD OFFICE	: CALGARY		
CASING THICKNESS: 0		RECORDED BY	: G. MURPHY		
BIT SIZE	: 15.6	BOREHOLE FLUID	: WATER	FILE	: ORIGINAL
MAGNETIC DECL.	: 24.500	RM	: 0	TYPE	: 9055A
MATRIX DENSITY	: 2.68	RM TEMPERATURE	: 0	LOG	: 9
FLUID DENSITY	: 1.0	MATRIX DELTA T	: 173	PLOT	: QUIN 2
NEUTRON MATRIX	: SANDSTONE	FLUID DELTA T	: 690	THRESH:	2500

REMARKS :
ANGLE HOLE AZIMUTH 217 INCLINATION 60
ANGLE HOLE AZIMUTH 217 INCLINATION 60

ALL SERVICES PROVIDED SUBJECT TO CGC STANDARD TERMS AND CONDITIONS



TOOL CALIBRATION TOOL = 9055A SERIAL NUMBER = 46

	CAL-DATE	CAL-TIME	SRCE	SENSOR	RESPONSE	STANDARD
0	07/28/88	15:07:18	0	GAM(NAT)	0.000 CPS	0.000 API-GR
1	07/28/88	15:07:18	0	GAM(NAT)	0.000 CPS	0.000 API-GR
2	07/28/88	15:20:10	0	POROSITY	0.000 CPS	190.000 CPS
3	07/28/88	15:07:18	0	RES	0.000 CPS	0.000 OHM
4	07/28/88	15:07:18	0	RES	0.000 CPS	0.000 OHM
5	07/28/88	15:07:18	0	SP	0.000 CPS	0.000 MV
6	07/28/88	15:07:18	0	SP	0.000 CPS	0.000 MV
7	07/28/88	15:19:56	0	NEUTRON	0.000 CPS	0.000 API-N
8	07/28/88	15:19:56	0	NEUTRON	190.000 CPS	271.000 API-N

QHR 88011 DEVIATION

COMPANY	: QUINTETTE COAL LTD.	OTHER SERVICES:	
WELL	: QHR 88011 DEVIATION	DAYLOG	
LOCATION/FIELD	: BL 2115SISL 2830S TRANSFER W	NEUT-RES	
COUNTY	:	CAL-DEN	
STATE	: BRITISH COLUMBIA		
SECTION	: TOWNSHIP :	RANGE :	

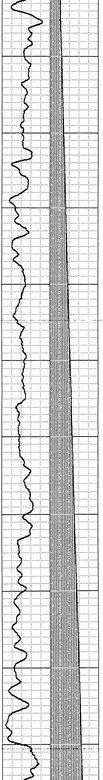
DATE	: 08/24/88	PERMANENT DATUM : 1590	ELEVATIONS
DEPTH DRILLER	: 202.2	ELEV. PERM. DATUM: 1590	KB : 1590
LOG BOTTOM	: 197.82	LOG MEASURED FROM: 1590	DF : 1590
LOG TOP	: 0.72	DRL MEASURED FROM: 1590	GL : 1590
CASING DRILLER	: S	LOGGING UNIT : 8401	
CASING TYPE	: STEEL	FIELD OFFICE : CALGARY	
CASING THICKNESS: 0		RECORDED BY : C. MURPHY	

BIT SIZE	: 15.6	BOREHOLE FLUID : WATER	FILE : PROCESSED
MAGNETIC DECL.	: 24.500	PH : 0	TYPE : 9055A
MATRIX DENSITY	: 2.68	RM TEMPERATURE : 0	LOG : S
FLUID DENSITY	: 1.0	MATRIX DELTA T : 173	PLOT : QUIK 6
NEUTRON MATRIX	: SANDSTONE	FLUID DELTA T : 650	THRESH: 2500
REMARKS	:		

ANGLE HOLE AZIMUTH 217 INCLINATION 60
ANGLE HOLE AZIMUTH 217 INCLINATION 60

ALL SERVICES PROVIDED SUBJECT TO CGC STANDARD TERMS AND CONDITIONS

#088



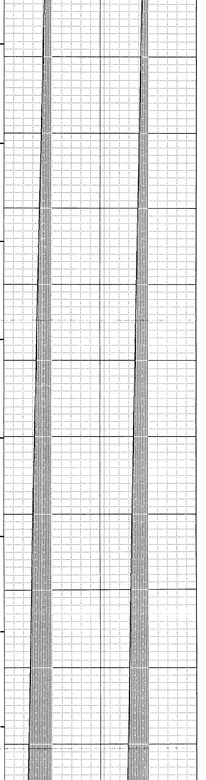


Table Depth	True Depth	North Dev.	East Dev.	Distance	Azimuth	SANS	SANSB
10.0	8.97	-.83	-.13	0.8	180.9	28.9	222.1
15.0	13.36	-2.66	-1.50	3.1	209.4	29.9	244.3
20.0	17.71	-4.54	-3.08	5.5	214.1	29.5	216.8
25.0	22.07	-6.43	-4.64	7.9	215.8	29.4	217.2
30.0	26.43	-8.28	-6.20	10.3	216.8	28.6	219.9
35.0	30.81	-9.98	-7.72	12.6	217.7	28.2	221.4
40.0	35.19	-11.55	-9.20	14.8	218.5	28.2	221.8
45.0	39.59	-13.02	-10.72	16.9	219.1	28.2	220.0
50.0	44.00	-14.52	-12.21	19.1	219.7	28.2	220.8
55.0	48.39	-16.09	-13.67	21.2	219.8	29.4	233.5
60.0	52.79	-17.77	-15.12	24.1	219.9	28.7	214.6
65.0	57.20	-20.39	-16.61	26.3	219.2	27.3	222.0
70.0	61.66	-22.18	-17.98	28.6	219.0	27.0	218.7
75.0	66.12	-23.91	-19.42	30.8	219.1	28.8	245.0
80.0	70.58	-25.65	-20.85	33.1	219.1	26.8	218.0
85.0	75.00	-27.28	-22.36	35.3	219.3	27.6	220.8
90.0	79.44	-28.92	-23.86	37.6	219.5	27.4	217.7
95.0	83.89	-30.54	-25.39	39.8	219.5	27.0	221.7
100.0	88.34	-32.13	-26.89	42.1	219.6	26.8	222.9
105.0	92.82	-33.71	-28.36	44.4	219.7	26.7	221.2
110.0	97.29	-35.26	-29.86	46.6	219.9	26.8	220.9
115.0	101.76	-36.82	-31.33	48.8	219.9	26.5	225.6
120.0	106.23	-38.32	-32.81	51.0	220.0	26.6	222.5
125.0	110.70	-39.78	-34.29	53.3	220.1	26.5	225.0
130.0	115.17	-41.34	-35.79	55.5	220.1	26.5	219.6
135.0	119.65	-42.88	-37.30	57.7	220.2	26.4	221.7
140.0	124.12	-44.38	-38.76	59.9	220.3	26.5	219.4
145.0	128.60	-45.92	-40.21	62.0	220.4	26.3	194.5
150.0	133.10	-47.47	-41.67	64.1	220.5	25.6	219.4
155.0	137.59	-48.99	-43.15	66.2	220.6	26.2	218.1
160.0	142.08	-50.54	-44.64	68.3	220.6	26.2	218.1
165.0	146.58	-52.04	-46.13	70.7	220.7	26.5	224.4
170.0	151.04	-53.57	-47.63	73.0	220.8	26.4	222.5
175.0	155.52	-54.89	-49.15	75.2	220.8	26.3	221.5
180.0	160.00	-56.52	-50.67	77.4	220.9	26.6	225.2
185.0	164.46	-58.20	-52.17	79.7	220.9	26.8	220.5
190.0	168.92	-59.86	-53.69	81.9	221.0	26.6	224.4
195.0	173.39	-61.49	-55.20	84.1	221.0	26.2	221.2
197.8	175.94	-62.39	-56.06	85.3	221.0	0.0	0.0

COMPU-LOG II - VERTICAL DEVIATION

CLIENT	: QUINTETTE COAL LTD.	HOLE ID.	: QHR 88011 DEV
FIELD OFFICE	: CALGARY	DATE OF LOG	: 08/24/88
DATA FROM	:	PROBE	: 9055A 46
MAG. DECL.	: 24.500	DEPTH UNITS	: FEET LOG S

#088

#880

Century

QHR 88011 GAMMA-DENSITY

COMPANY	: QUINTETTE COAL LTD.
WELL	: QHR 88011 GAMMA-DENSITY
LOCATION/FIELD	: BL 21150:SL 28300 TRANSFER W
COUNTY	:
STATE	: BRITISH COLUMBIA
SECTION	:
TOWNSHIP	:
RANGE	:

OTHER SERVICES: GAM,DEN, NEUT,RES CAL,DEV

DATE	: 08/25/88	PERMANENT DATUM	: 1590	ELEVATIONS	
DEPTH DRILLER	: 202.2	ELEV. PERM. DATUM	: 1590	KB	: 1590
LOG BOTTOM	: 198.20	LOG MEASURED FROM	: 1590	DF	: 1590
LOG TOP	: 0.12	DRL MEASURED FROM	: 1590	GL	: 1590
CASING DRILLER	: 5	LOGGING UNIT	: 8401		
CASING TYPE	: STEEL	FIELD OFFICE	: CALGARY		
CASING THICKNESS	: 0	RECORDED BY	: G. MURPHY		
BIT SIZE	: 15.6	BOREHOLE FLUID	: WATER	FILE	: ORIGINAL
MAGNETIC DECL.	: 24.500	RM	: 0	TYPE	: 9030AA
MATRIX DENSITY	: 2.68	RM TEMPERATURE	: 0	LOG	: 3
FLUID DENSITY	: 1.0	MATRIX DELTA T	: 173	PLOT	: QUIN 5
NEUTRON MATRIX	: SANDSTONE	FLUID DELTA T	: 690	THRESH	: 2500

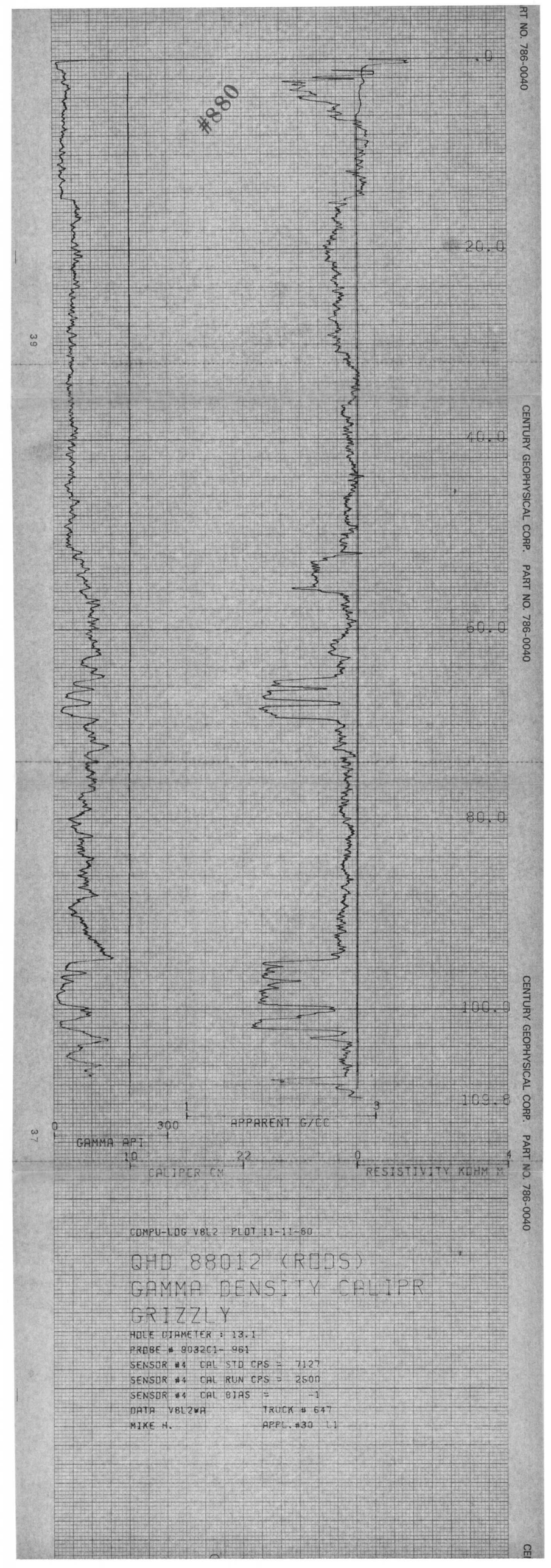
REMARKS :
ANGLE HOLE AZIMUTH 217 INCLINATION 60
ANGLE HOLE AZIMUTH 217 INCLINATION 60

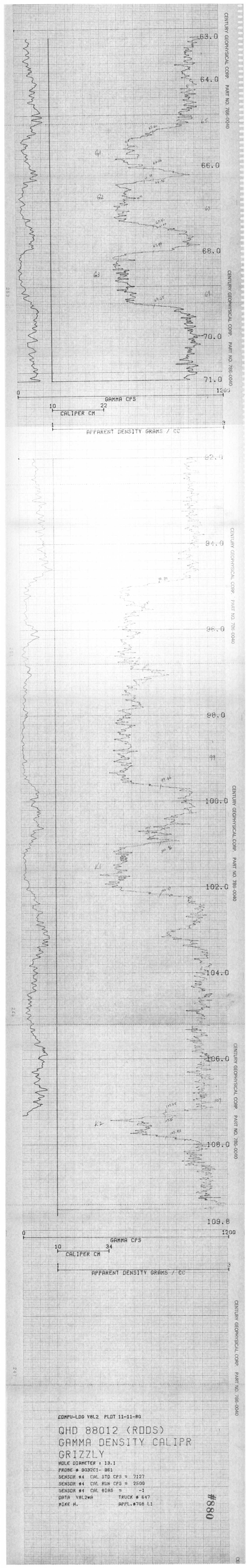
ALL SERVICES PROVIDED SUBJECT TO CGC STANDARD TERMS AND CONDITIONS

0880

TOOL CALIBRATION TOOL = 9030AA SERIAL NUMBER = 404

	CAL-DATE	CAL-TIME	SRCE	SENSOR	RESPONSE	STANDARD
0	07/28/88	13:56:46	0	GAM(NAT)	0.000 CPS	0.000 API-GR
1	07/28/88	13:56:46	0	GAM(NAT)	0.000 CPS	0.000 API-GR
2	07/28/88	14:13:46	0	DENSITY	5615.000 CPS	1.106 G/CC
3	07/28/88	14:13:46	0	DENSITY	2230.500 CPS	2.120 G/CC
4	07/28/88	13:56:46	0	RES(MG)	0.000 CPS	0.000 OHM-M
5	07/28/88	13:56:46	0	RES(MG)	0.000 CPS	0.000 OHM-M
6	07/28/88	15:42:06	0	CALIPER	213.400 CPS	7.600 CM
7	07/28/88	15:42:06	0	CALIPER	1842.500 CPS	17.800 CM
8	07/28/88	13:56:46	0	DENSITYH	0.000 CPS	0.000 G/CC
9	07/28/88	13:56:46	0	DENSITYH	0.000 CPS	0.000 G/CC
10	07/28/88	13:56:46	0	CALIPERL	0.000 CPS	0.000 CM
11	07/28/88	13:56:46	0	CALIPERL	0.000 CPS	0.000 CM


#880
0.0
20.0
40.0
60.0
80.0
100.0
109.0
1
3
0
300
APPARENT G/CC
GAMMA API
10
22
CALIPER CM
0
4
RESISTIVITY KOHM M
COMPU-LOG V8L2 PLOT 11-11-80
QHD 88012 (ROOS)
GAMMA DENSITY CALIPR
GRIZZLY
HOLE DIAMETER : 13.1
PROBE # 9032C1- 961
SENSOR #4 CAL STD CPS = 7127
SENSOR #4 CAL RUN CPS = 2500
SENSOR #4 CAL BIAS = -1
DATA V8L2#A TRUCK # 647
MIKE H. APPL.#30 L1
CENTURY GEOPHYSICAL CORP. PART NO. 786-0040
CENTURY GEOPHYSICAL CORP. PART NO. 786-0040
RT NO. 786-0040
39
37



COMPU-LOG V8L2 PLOT 11-11-89

QHD 88012 (RODS)

GAMMA DENSITY CALIPR

GRIZZLY

HOLE DIAMETER = 13.1

PROBE # 8032C1- 961

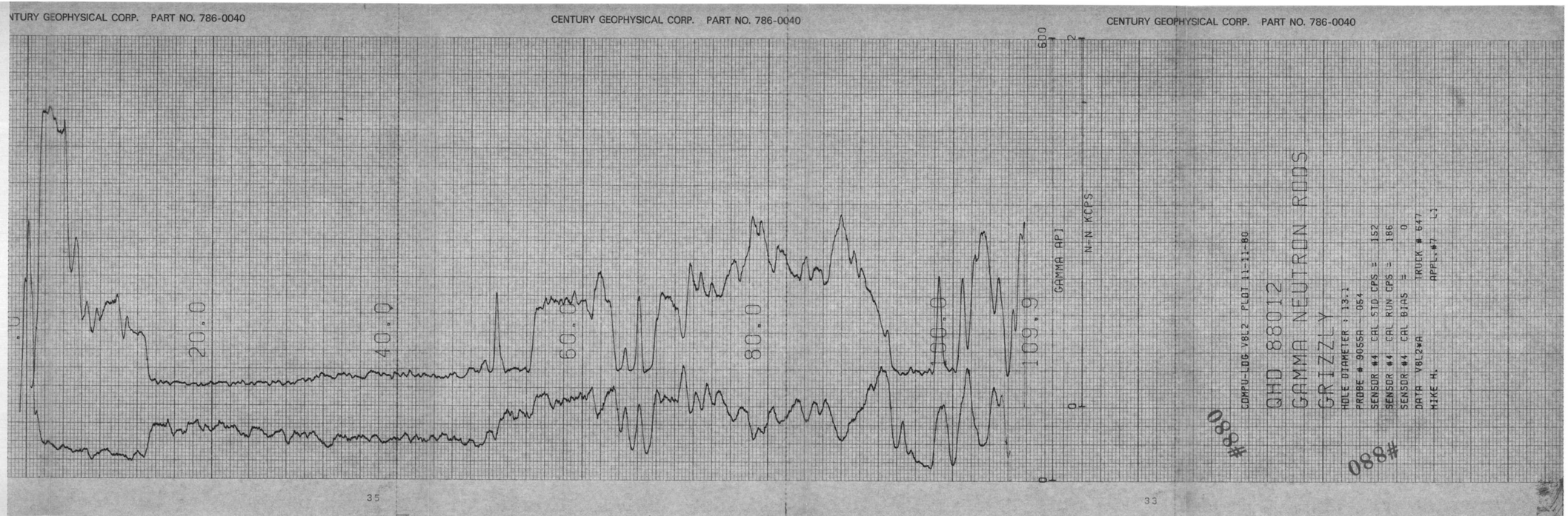
SENSOR #4 CAL STD CPS = 7127

SENSOR #4 CAL RUN CPS = 2500

SENSOR #4 CAL BIAS = -1

DATA V8L2WA TRUCK # 647

MIKE H. APPL.#708 4.1


NTURY GEOPHYSICAL CORP. PART NO. 786-0040
CENTURY GEOPHYSICAL CORP. PART NO. 786-0040
CENTURY GEOPHYSICAL CORP. PART NO. 786-0040
20.0
40.0
60.0
80.0
100.0
109.9
600
GAMMA API
N-N KCPS
COMPU-LOG V8L2 PLOT 11-11-80
QHD 88012
GAMMA NEUTRON RODS
GRIZZLY
HOLE DIAMETER : 13.2
PROBE # 905SA 064
SENSOR #4 CAL STD CPS = 152
SENSOR #4 CAL RUN CPS = 186
SENSOR #4 CAL BIAS = 0
DATA V8L2*A TRUCK # 647
MIKE H. APPL.#7 L1
088#
088#
35
33

Century

QHR 88012 GAMMA-DENSITY

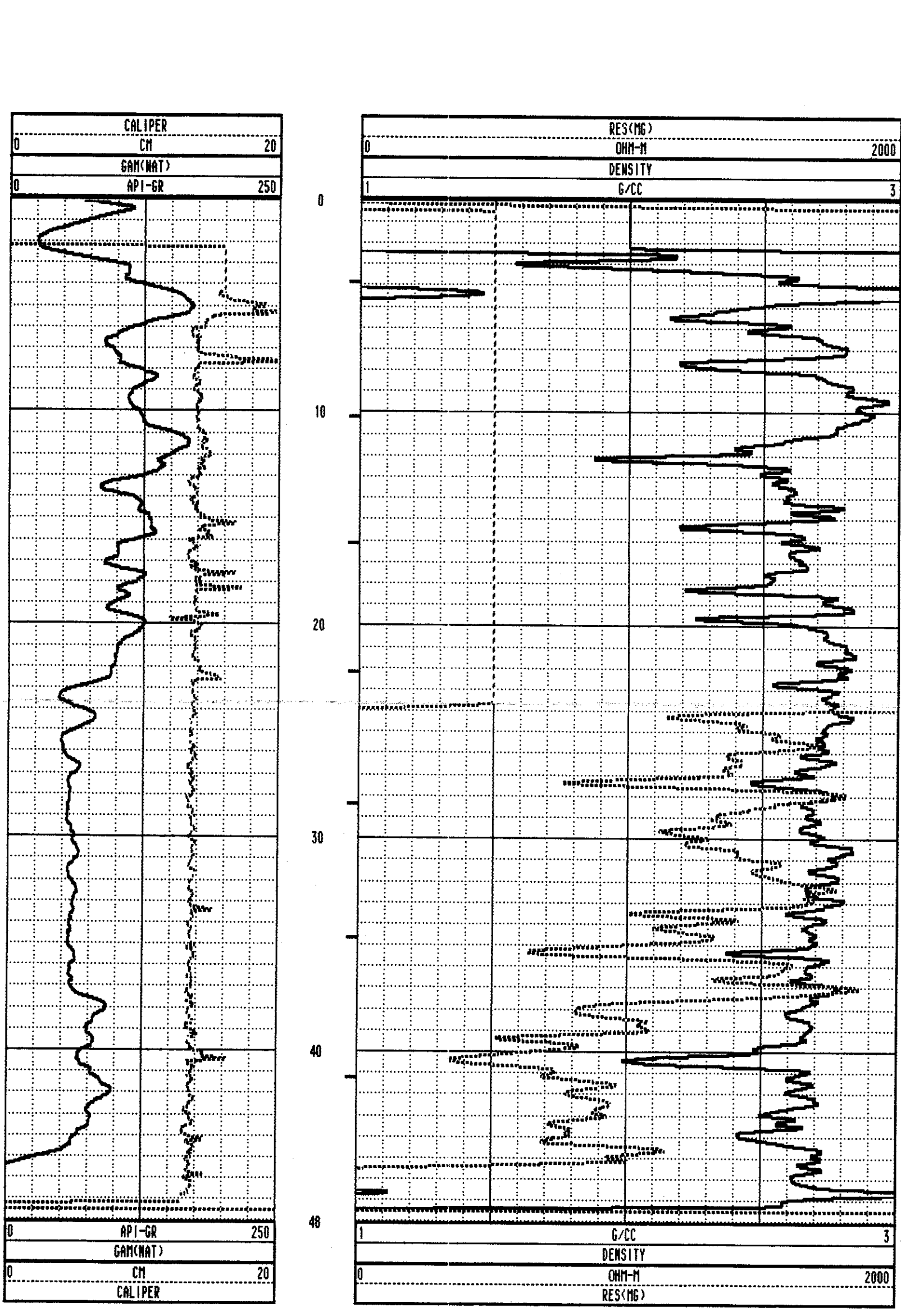
COMPANY	: QUINTETTE COAL LTD.				
WELL	: QHR 88012 GAMMA-DENSITY				
LOCATION/FIELD	: BL 19950:SL 29760 TRANSFER W				
COUNTY	:				
STATE	: BRITISH COLUMBIA				
SECTION	:	TOWNSHIP	:	RANGE	:
DATE	: 08/25/88	PERMANENT DATUM	: 1590	ELEVATIONS	
DEPTH DRILLER	: 51	ELEV. PERM. DATUM	: 1590	KB	: 1590
LOG BOTTOM	: 47.58	LOG MEASURED FROM	: 1590	DF	: 1590
LOG TOP	: 0.20	DRL MEASURED FROM	: 1590	GL	: 1590
CASING DRILLER	: 6	LOGGING UNIT	: 8401		
CASING TYPE	: STEEL	FIELD OFFICE	: CALGARY		
CASING THICKNESS	: 0	RECORDED BY	: G. MURPHY		
BIT SIZE	: 15.6	BOREHOLE FLUID	: WATER	FILE	: ORIGINAL
MAGNETIC DECL.	: 24.500	RM	: 0	TYPE	: 9030AA
MATRIX DENSITY	: 2.68	RM TEMPERATURE	: 0	LOG	: 2
FLUID DENSITY	: 1.0	MATRIX DELTA T	: 173	PLOT	: QUIN 3
NEUTRON MATRIX	: SANDSTONE	FLUID DELTA T	: 690	THRESH	: 2500

OTHER SERVICES:
GAM.DEN.
NEUT.RES
CAL.DEV

REMARKS :
ANGLE HOLE AZIMUTH 37 INCLINATION 45

ALL SERVICES PROVIDED SUBJECT TO CGC STANDARD TERMS AND CONDITIONS

088#



TOOL CALIBRATION TOOL = 9030AA SERIAL NUMBER = 404

	CAL-DATE	CAL-TIME	SRCE	SENSOR	RESPONSE	STANDARD
0	07/28/88	13:56:46	0	GAM(NAT)	0.000 CPS	0.000 API-GR
1	07/28/88	13:56:46	0	GAM(NAT)	0.000 CPS	0.000 API-GR
2	07/28/88	14:13:46	0	DENSITY	5615.000 CPS	1.106 G/CC
3	07/28/88	14:13:46	0	DENSITY	2230.500 CPS	2.120 G/CC
4	07/28/88	13:56:46	0	RES(MG)	0.000 CPS	0.000 OHM-M
5	07/28/88	13:56:46	0	RES(MG)	0.000 CPS	0.000 OHM-M
6	07/28/88	15:42:06	0	CALIPER	213.400 CPS	7.600 CM
7	07/28/88	15:42:06	0	CALIPER	1842.500 CPS	17.800 CM
8	07/28/88	13:56:46	0	DENSITYH	0.000 CPS	0.000 G/CC
9	07/28/88	13:56:46	0	DENSITYH	0.000 CPS	0.000 G/CC
10	07/28/88	13:56:46	0	CALIPERL	0.000 CPS	0.000 CM
11	07/28/88	13:56:46	0	CALIPERL	0.000 CPS	0.000 CM

#880

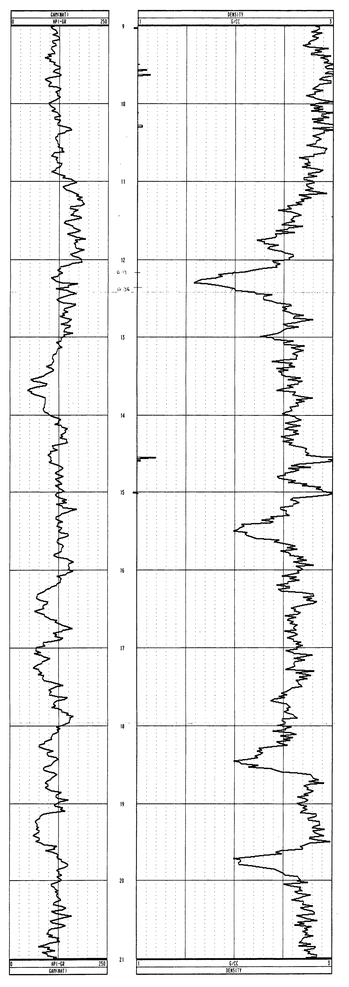
Century

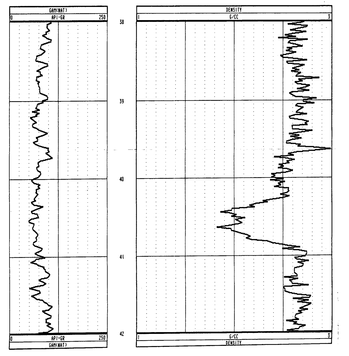
QHR 88012 GAMMA-DENSITY

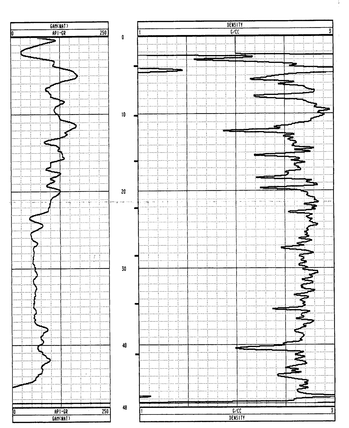
COMPANY	: QUINETTE COAL LTD.			OTHER SERVICES:	
WELL	: QHR 88012 GAMMA-DENSITY			GAMLOG4.	
LOCATION/FIELD	: BL 1995015L 2976D TRANSFER W			NEUT.RES	
COUNTY	:			CAL.DEN	
STATE	: BRITISH COLUMBIA				
SECTION	:	TOWNSHIP	:	RANGE	:
DATE	: 08-25/88	PERMANENT DATUM	: 1590	ELEVATIONS	
DEPTH DRILLER	: 51	ELEV. PERM. DATUM	1590	KB	: 1590
LOG BOTTOM	: 47.58	LOG MEASURED FROM	1590	DF	: 1590
LOG TOP	: 0.20	DRL MEASURED FROM	1590	GL	: 1590
CASING DRILLER	: 6	LOGGING UNIT	: 8401		
CASING TYPE	: STEEL	FIELD OFFICE	: CALGARY		
CASING THICKNESS	: 0	RECORDED BY	: G. MURPHY		
BIT SIZE	: 15.6	BOREHOLE FLUID	: WATER	FILE	: ORIGINAL
MAGNETIC DECL.	: 24.500	RM	: 0	TYPE	: 9030AA
MATRIX DENSITY	: 2.68	RM TEMPERATURE	: 0	LOG	: 9
FLUID DENSITY	: 1.0	MATRIX DELTA T	: 175	PLOT	: QUIN 5
NEUTRON MATRIX	: SANDSTONE	FLUID DELTA T	: 690	THRESH1	2500
REMARKS	:				

ANGLE HOLE AZIMUTH 37 INCLINATION 45

ALL SERVICES PROVIDED SUBJECT TO CGC STANDARD TERMS AND CONDITIONS







TOOL CALIBRATION TOOL = 9030AA SERIAL NUMBER = 404

	CAL-DATE	CAL-TIME	SRCE	SENSOR	RESPONSE	STANDARD
0	07/28/88	13:56:46	0	GAMMANAT	0.000 CPS	0.000 API-GR
1	07/28/88	13:56:46	0	GAMMANAT	0.000 CPS	0.000 API-GR
2	07/28/88	14:13:46	0	DENSITY	5695.000 CPS	1.196 G/CC
3	07/28/88	14:13:46	0	DENSITY	2230.500 CPS	2.120 G/CC
4	07/28/88	13:56:46	0	RESITMJ	0.000 CPS	0.000 OHM-M
5	07/28/88	13:56:46	0	RESITMJ	0.000 CPS	0.000 OHM-M
6	07/28/88	15:42:06	0	CALIPER	215.400 CPS	7.600 CM
7	07/28/88	15:42:06	0	CALIPER	1842.500 CPS	17.800 CM
8	07/28/88	13:56:46	0	DENSITYM	0.000 CPS	0.000 G/CC
9	07/28/88	13:56:46	0	DENSITYM	0.000 CPS	0.000 G/CC
10	07/28/88	13:56:46	0	CALIPERL	0.000 CPS	0.000 CM
11	07/28/88	13:56:46	0	CALIPERL	0.000 CPS	0.000 CM

#880

Century

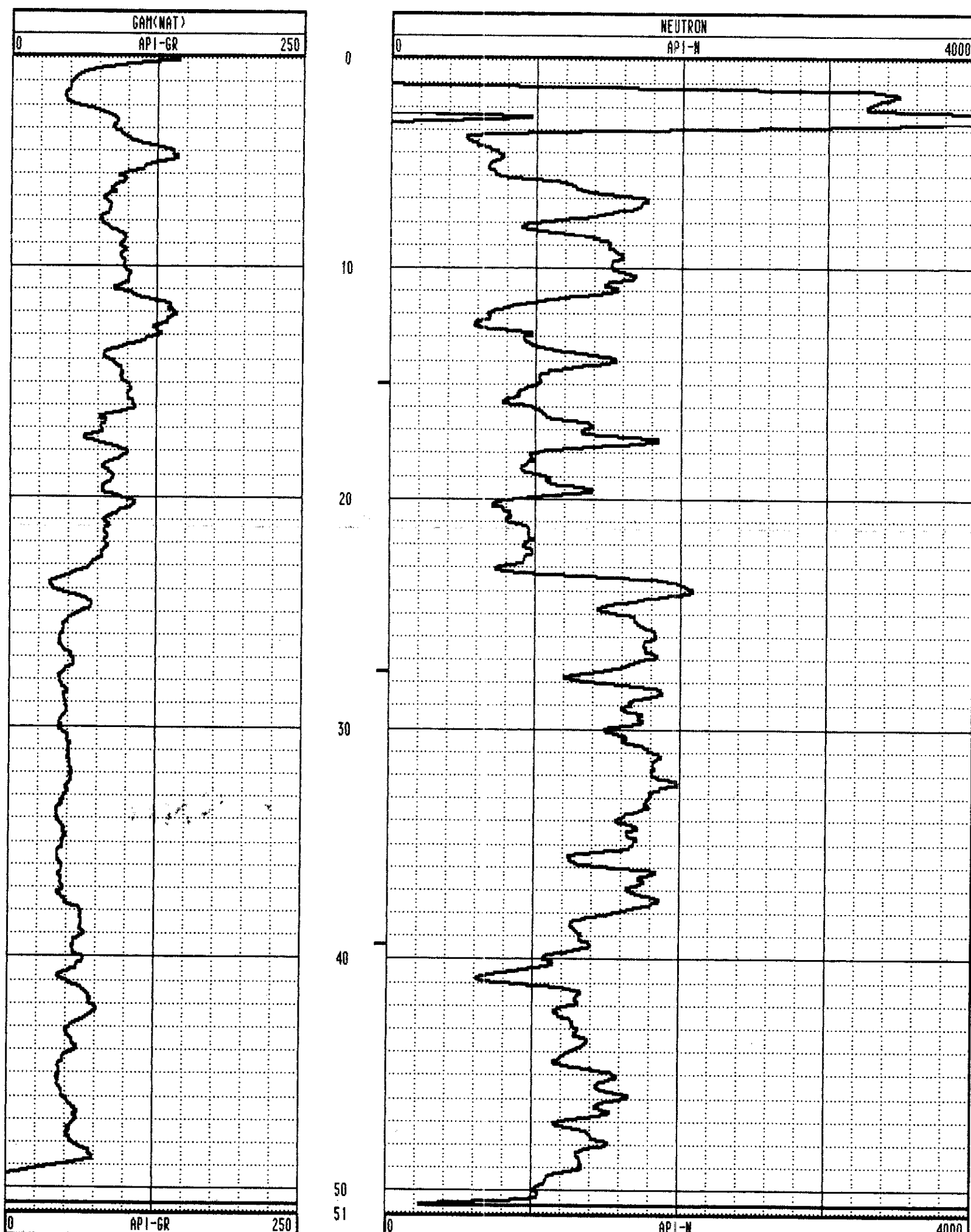
QHR 88012 GAMMA-NEUTRON

COMPANY	: QUINTETTE COAL LTD.				
WELL	: QHR 88012 GAMMA-NEUTRON				
LOCATION/FIELD	: BL 19950:SL 29760 TRANSFER W				
COUNTY	:				
STATE	: BRITISH COLUMBIA				
SECTION	:	TOWNSHIP	:	RANGE	:
DATE	: 08/25/88	PERMANENT DATUM	: 1590	ELEVATIONS	
DEPTH DRILLER	: 51	ELEV. PERM. DATUM	: 1590	KB	: 1590
LOG BOTTOM	: 50.70	LOG MEASURED FROM	: 1590	DF	: 1590
LOG TOP	: 0.82	DRL MEASURED FROM	: 1590	GL	: 1590
CASING DRILLER	: 6	LOGGING UNIT	: 8401		
CASING TYPE	: STEEL	FIELD OFFICE	: CALGARY		
CASING THICKNESS	: 0	RECORDED BY	: G. MURPHY		
BIT SIZE	: 15.6	BOREHOLE FLUID	: WATER	FILE	: ORIGINAL
MAGNETIC DECL.	: 24.500	RM	: 0	TYPE	: 9055A
MATRIX DENSITY	: 2.68	RM TEMPERATURE	: 0	LOG	: 1
FLUID DENSITY	: 1.0	MATRIX DELTA T	: 173	PLOT	: QUIN 2
NEUTRON MATRIX	: SANDSTONE	FLUID DELTA T	: 690	THRESH	: 2500

OTHER SERVICES:
GAM,DEN,
NEUT,RES
CAL,DEV

REMARKS :
ANGLE HOLE AZIMUTH 37 INCLINATION 45

ALL SERVICES PROVIDED SUBJECT TO CGC STANDARD TERMS AND CONDITIONS



TOOL CALIBRATION TOOL = 9055A SERIAL NUMBER = 46

	CAL-DATE	CAL-TIME	SRCE	SENSOR	RESPONSE	STANDARD
0	07/28/88	15:07:18	0	GAM(NAT)	0.000 CPS	0.000 API-GR
1	07/28/88	15:07:18	0	GAM(NAT)	0.000 CPS	0.000 API-GR
2	07/28/88	15:20:10	0	POROSITY	0.000 CPS	190.000 CPS
3	07/28/88	15:07:18	0	RES	0.000 CPS	0.000 OHM
4	07/28/88	15:07:18	0	RES	0.000 CPS	0.000 OHM
5	07/28/88	15:07:18	0	SP	0.000 CPS	0.000 MV
6	07/28/88	15:07:18	0	SP	0.000 CPS	0.000 MV
7	07/28/88	15:19:56	0	NEUTRON	0.000 CPS	0.000 API-N
8	07/28/88	15:19:56	0	NEUTRON	190.000 CPS	271.000 API-N

Century

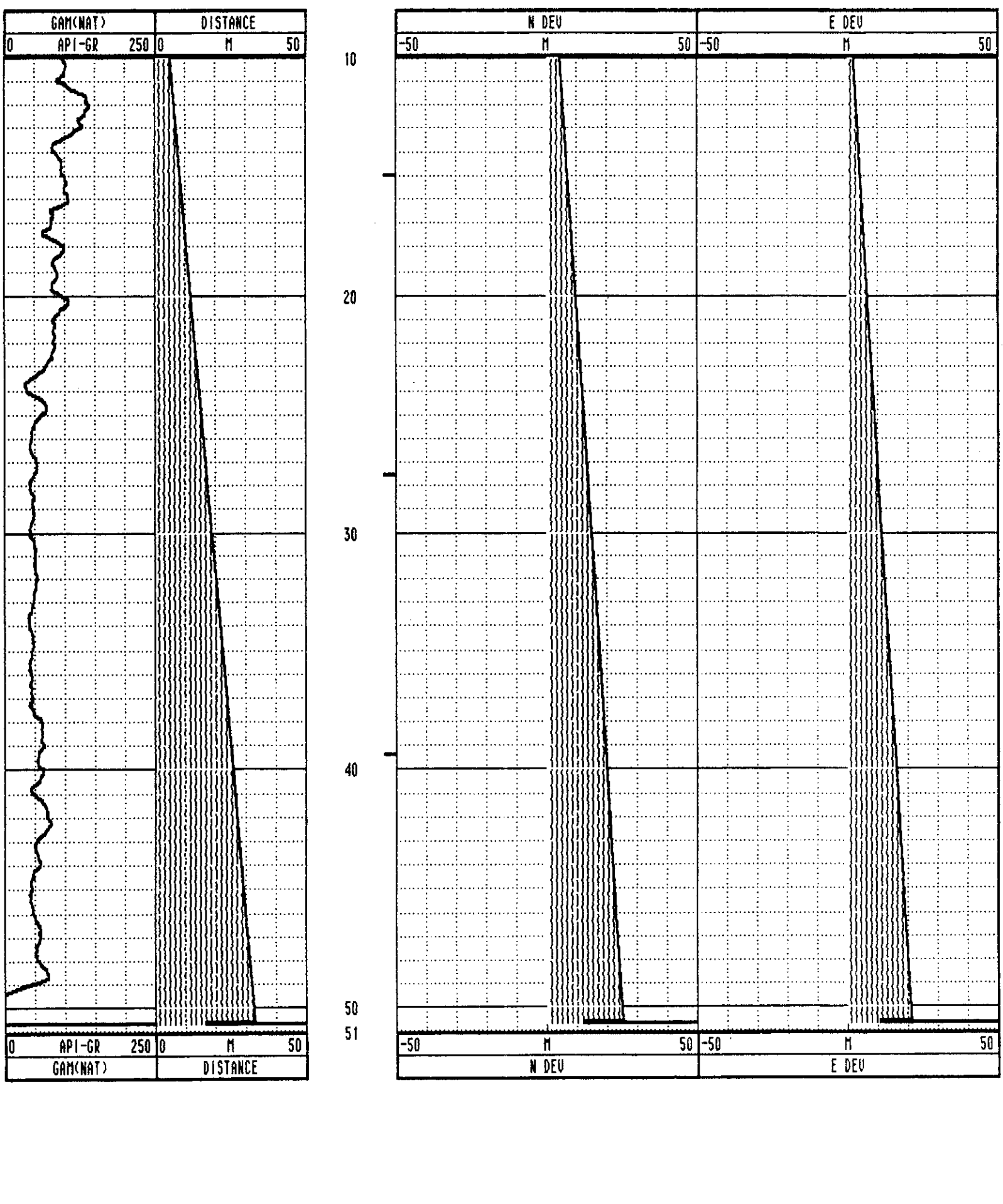
QHR 88012 DEVIATION

COMPANY	: QUINTETTE COAL LTD.			OTHER SERVICES:	
WELL	: QHR 88012 DEVIATION			GAM,DEN,	
LOCATION/FIELD	: BL 19950:SL 29760 TRANSFER W			NEUT,RES	
COUNTY	:			CAL,DEV	
STATE	: BRITISH COLUMBIA				
SECTION	:	TOWNSHIP	:	RANGE	:
DATE	: 08/25/88	PERMANENT DATUM	: 1590	ELEVATIONS	
DEPTH DRILLER	: 51	ELEV. PERM. DATUM	: 1590	KB	: 1590
LOG BOTTOM	: 50.70	LOG MEASURED FROM	: 1590	DF	: 1590
LOG TOP	: 0.82	DRL MEASURED FROM	: 1590	GL	: 1590
CASING DRILLER	: 6	LOGGING UNIT	: 8401		
CASING TYPE	: STEEL	FIELD OFFICE	: CALGARY		
CASING THICKNESS	: 0	RECORDED BY	: G. MURPHY		
BIT SIZE	: 15.6	BOREHOLE FLUID	: WATER	FILE	: PROCESSED
MAGNETIC DECL.	: 24.500	RM	: 0	TYPE	: 9055A
MATRIX DENSITY	: 2.68	RM TEMPERATURE	: 0	LOG	: 0
FLUID DENSITY	: 1.0	MATRIX DELTA T	: 173	PLOT	: QUIN 6
NEUTRON MATRIX	: SANDSTONE	FLUID DELTA T	: 690	THRESH	: 2500

REMARKS :
ANGLE HOLE AZIMUTH 37 INCLINATION 45

ALL SERVICES PROVIDED SUBJECT TO CGC STANDARD TERMS AND CONDITIONS

#880



* * * * * * * * * * COMPU-LOG II - VERTICAL DEVIATION * * * * * * * * * * *

CLIENT	: QUINTETTE COAL LTD.	HOLE ID.	: QHR 88012 GAM
FIELD OFFICE	: CALGARY	DATE OF LOG	: 08/26/88
DATA FROM	:	PROBE	: 9055A , 46
MAG. DECL.	: 24.500	DEPTH UNITS	: FEET LOG 0

Cable Depth	True Depth	North Dev.	East Dev.	Distance	Azimuth	SANG	SANGB
10.0	7.75	4.54	2.12	5.0	25.0	44.4	32.0
11.0	8.46	5.07	2.57	5.7	26.9	44.9	38.1
12.0	9.18	5.60	3.02	6.4	28.3	44.1	22.7
13.0	9.90	6.06	3.49	7.0	30.0	44.9	44.7
14.0	10.61	6.53	3.95	7.6	31.2	44.5	40.3
15.0	11.32	7.07	4.39	8.3	31.9	44.8	42.0
16.0	12.02	7.60	4.85	9.0	32.5	48.5	40.2
17.0	12.72	8.16	5.29	9.7	32.9	45.1	40.8
18.0	13.43	8.69	5.75	10.4	33.5	44.8	42.5
19.0	14.14	9.22	6.21	11.1	34.0	45.2	38.4
20.0	14.85	9.77	6.66	11.8	34.3	45.3	45.0
21.0	15.55	10.30	7.12	12.5	34.7	45.4	39.8
22.0	16.25	10.85	7.57	13.2	34.9	45.7	40.9
23.0	16.96	11.37	8.05	13.9	35.3	46.8	36.7
24.0	17.66	11.89	8.53	14.6	35.6	45.5	41.4
25.0	18.36	12.42	9.01	15.3	36.0	45.3	43.6
26.0	19.06	12.94	9.49	16.0	36.3	45.3	43.0
27.0	19.77	13.46	9.98	16.7	36.6	45.5	44.6
28.0	20.47	13.99	10.46	17.5	36.8	45.3	40.3
29.0	21.17	14.51	10.94	18.2	37.0	45.8	39.1
30.0	21.87	15.05	11.40	18.9	37.1	45.9	38.8
31.0	22.58	15.59	11.86	19.6	37.3	45.3	44.7
32.0	23.28	16.11	12.34	20.3	37.4	45.6	41.3
33.0	23.98	16.63	12.83	21.0	37.6	45.4	42.0
34.0	24.68	17.15	13.31	21.7	37.8	45.2	42.3
35.0	25.39	17.66	13.81	22.4	38.0	45.4	48.8
36.0	26.09	18.14	14.30	23.1	38.3	44.5	0.5
37.0	26.80	18.63	14.79	23.8	38.5	44.6	42.4
38.0	27.52	19.10	15.30	24.5	38.7	43.7	49.3
39.0	28.23	19.59	15.78	25.2	38.8	44.5	37.5
40.0	28.95	20.08	16.28	25.9	39.0	43.6	47.9
41.0	29.67	20.58	16.77	26.5	39.2	43.1	48.0
42.0	30.39	21.02	17.21	27.2	39.3	45.7	40.0
43.0	31.09	21.52	17.67	27.8	39.4	45.3	51.5
44.0	31.79	22.02	18.17	28.5	39.5	46.4	44.0
45.0	32.48	22.55	18.64	29.3	39.6	45.7	32.3
46.0	33.18	23.03	19.14	29.9	39.7	44.4	48.3
47.0	33.88	23.54	19.59	30.6	39.8	46.1	44.2
48.0	34.58	24.05	20.04	31.3	39.8	46.3	29.8
49.0	35.28	24.53	20.55	32.0	40.0	44.7	66.8
50.0	36.00	25.03	20.98	32.6	40.0	48.3	61.1
50.7	36.49	25.36	21.30	33.1	40.0	0.0	0.0
51.0	0.00	0.00	0.00	0.0	0.0	0.0	0.0

#880

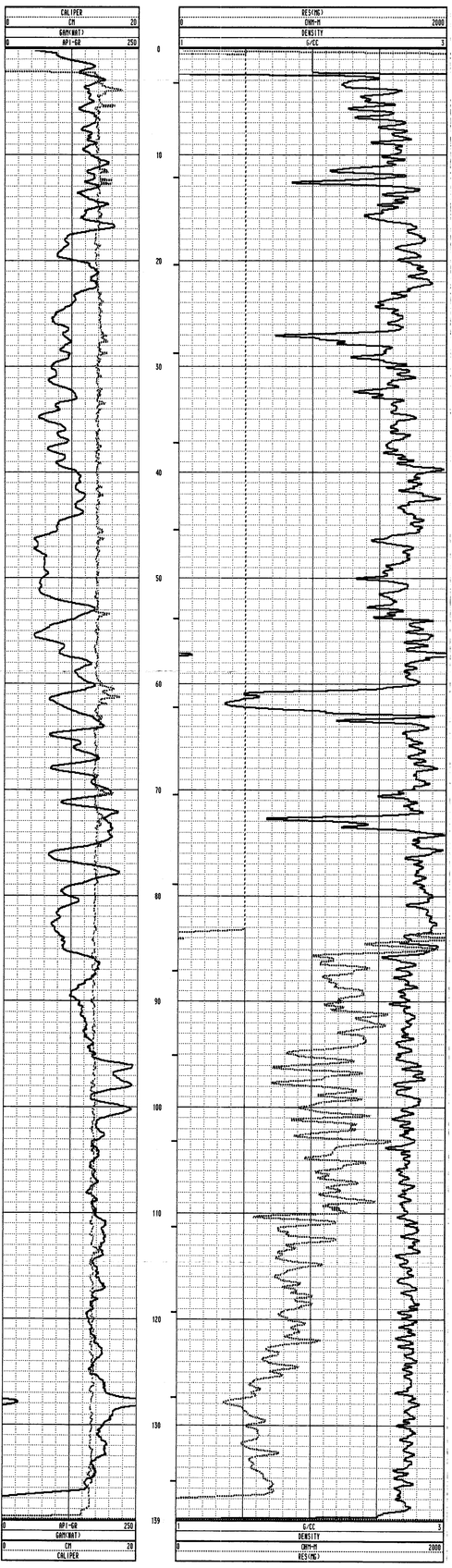
Century

QHR 88013 GAMMA-DENSITY

COMPANY	: QUINTETTE COAL LTD.			OTHER SERVICES:	
WELL	: QHR 88013 GAMMA-DENSITY			GAM.DEN.	
LOCATION/FIELD	: BL 19900:SL 29900 TRANSFER W			NEUT.RES	
COUNTY	:			CAL.DEV	
STATE	: BRITISH COLUMBIA				
SECTION	:	TOWNSHIP	:	RANGE :	
DATE	: 08/27/88	PERMANENT DATUM	: 1615	ELEVATIONS	
DEPTH DRILLER	: 139.2	ELEV. PERM. DATUM:	1615	KB	: 1615
LOG BOTTOM	: 139.02	LOG MEASURED FROM:	1615	DF	: 1615
LOG TOP	: 0.20	DRL MEASURED FROM:	1615	GL	: 1615
CASING DRILLER	: 1.7	LOGGING UNIT	: 8401		
CASING TYPE	: STEEL	FIELD OFFICE	: CALGARY		
CASING THICKNESS	: 0	RECORDED BY	: G. MURPHY		
BIT SIZE	: 15.6	BOREHOLE FLUID	: WATER	FILE	: ORIGINAL
MAGNETIC DECL.	: 24.500	RM	: 0	TYPE	: 9030AA
MATRIX DENSITY	: 2.68	RM TEMPERATURE	: 0	LOG	: 3
FLUID DENSITY	: 1.0	MATRIX DELTA T	: 173	PLOT	: QUIN 3
NEUTRON MATRIX	: SANDSTONE	FLUID DELTA T	: 690	THRESH	: 2500
REMARKS	:				

ANGLE HOLE AZIMUTH 37 INCLINATION 50

ALL SERVICES PROVIDED SUBJECT TO CGC STANDARD TERMS AND CONDITIONS



TOOL CALIBRATION TOOL = 9030AA SERIAL NUMBER = 404

	CAL-DATE	CAL-TIME	SRCE	SENSOR	RESPONSE	STANDARD
0	07/28/88	13:56:46	0	GAM(NAT)	0.000 CPS	0.000 API-GR
1	07/28/88	13:56:46	0	GAM(NAT)	0.000 CPS	0.000 API-GR
2	07/28/88	14:13:46	0	DENSITY	5615.000 CPS	1.106 G/CC
3	07/28/88	14:13:46	0	DENSITY	2230.500 CPS	2.120 G/CC
4	07/28/88	13:56:46	0	RES(MG)	0.000 CPS	0.000 OHM-M
5	07/28/88	13:56:46	0	RES(MG)	0.000 CPS	0.000 OHM-M
6	07/28/88	15:42:06	0	CALIPER	213.400 CPS	7.600 CM
7	07/28/88	15:42:06	0	CALIPER	1842.500 CPS	17.800 CM
8	07/28/88	13:56:46	0	DENSITYH	0.000 CPS	0.000 G/CC
9	07/28/88	13:56:46	0	DENSITYH	0.000 CPS	0.000 G/CC
10	07/28/88	13:56:46	0	CALIPERL	0.000 CPS	0.000 CM
11	07/28/88	13:56:46	0	CALIPERL	0.000 CPS	0.000 CM

088#

Century

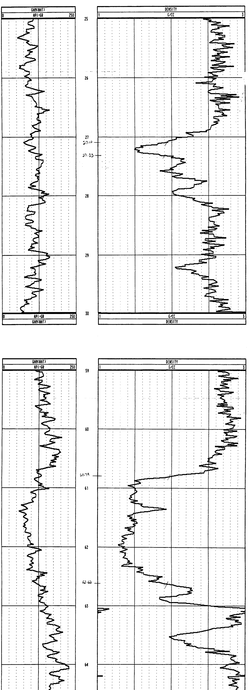
QHR 88013 GAMMA-DENSITY

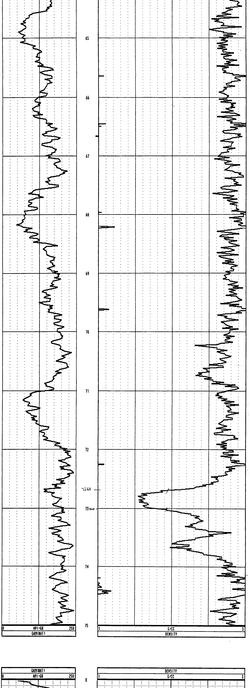
COMPANY	: QUINTETTE COAL LTD.	OTHER SERVICES:	
WELL	: QHR 88013 GAMMA-DENSITY	GAM,DEN,	
LOCATION/FIELD	: BL 1990015L 29900 TRANSFER W	NEUT,NES	
COUNTY	:	CAL,DEV	
STATE	: BRITISH COLUMBIA		
SECTION	:	TOWNSHIP :	RANGE :

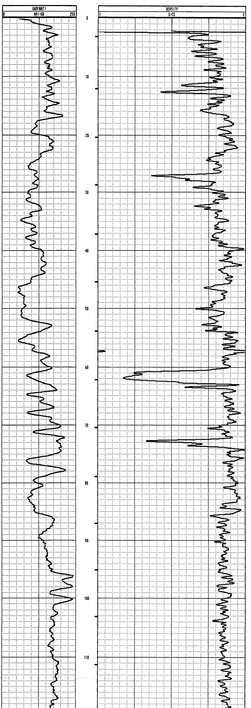
#80

DATE	: 08/27/88	PERMANENT DATUM	: 1615	ELEVATIONS	
DEPTH DRILLER	: 139.2	ELEV. PERM. DATUM	: 1615	KB	: 1615
LOG BOTTOM	: 139.02	LOG MEASURED FROM	: 1615	DF	: 1615
LOG TOP	: 0.20	DBL MEASURED FROM	: 1615	GL	: 1615
CASING DRILLER	: 1.7	LOGGING UNIT	: 8401		
CASING TYPE	: STEEL	FIELD OFFICE	: CALGARY		
CASING THICKNESS	: 0	RECORDED BY	: G. MURPHY		
BIT SIZE	: 15.4	BOREHOLE FLUID	: WATER	FILE	: ORIGINAL
MAGNETIC DECL.	: 24.500	RM	: 0	TYPE	: 1030AA
MATRIX DENSITY	: 2.68	RM TEMPERATURE	: 0	LOG	: 2
FLUID DENSITY	: 1.0	MATRIX DELTA T	: 173	PLOT	: QUIN 5
NEUTRON MATRIX	: SANDSTONE	FLUID DELTA T	: 690	THRESH	: 2500
REMARKS					
ANGLE HOLE AZIMUTH 37 INCLINATION 50					

ALL SERVICES PROVIDED SUBJECT TO CGC STANDARD TERMS AND CONDITIONS







TOOL CALIBRATION			TOOL # 1030AA	SERIAL NUMBER # 404	
CAL-DATE	CAL-TIME	DEVICE	DEVICE	RESPONSE	STANDARD
0	07/29/88	13:56:46	0	GAMMA1	0.000 CPS	0.000 API-GR
1	07/29/88	13:56:46	0	GAMMA2	0.000 CPS	0.000 API-GR
2	07/29/88	14:13:46	0	DENSITY	5615.000 CPS	1.106 G/CC
3	07/29/88	14:13:46	0	DENSITY	2230.000 CPS	2.120 G/CC
4	07/29/88	13:56:46	0	RESIN6	0.000 CPS	0.000 OHM-M
5	07/29/88	13:56:46	0	RESIN6	0.000 CPS	0.000 OHM-M
6	07/29/88	15:42:06	0	CALIPER	213.400 CPS	7.000 CM
7	07/29/88	15:42:06	0	CALIPER	1842.000 CPS	17.000 CM
8	07/29/88	13:56:46	0	DENSITYR	0.000 CPS	0.000 G/CC
9	07/29/88	13:56:46	0	DENSITYR	0.000 CPS	0.000 G/CC
10	07/29/88	13:56:46	0	CALIPER1	0.000 CPS	0.000 CM
11	07/29/88	13:56:46	0	CALIPER1	0.000 CPS	0.000 CM

088#

#880

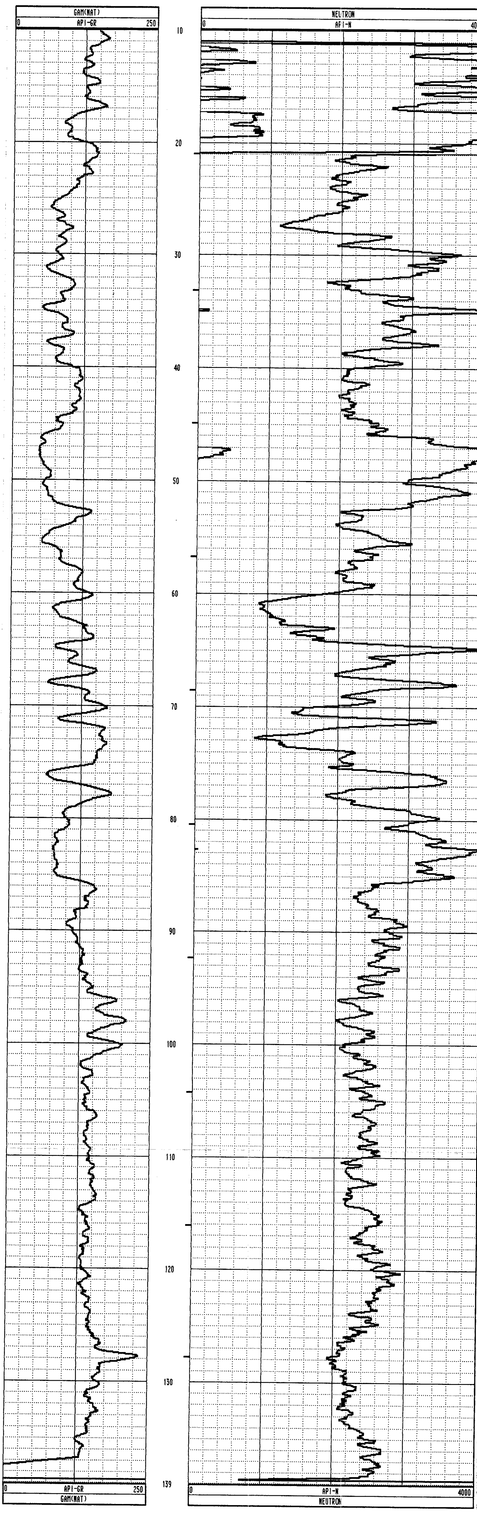
Century

QHR 88013 GAMMA NEUTRON

COMPANY	: QUINTETTE COAL LTD.			OTHER SERVICES:	
WELL	: QHR 88013 GAMMA/NEUTRON			GAM.DEN.	
LOCATION/FIELD	: BL 19900:SL 29900 TRANSFER W			NEUT.RES	
COUNTY	:			CAL.DEV	
STATE	: BRITISH COLUMBIA				
SECTION	:	TOWNSHIP	:	RANGE	:
DATE	: 08/27/88	PERMANENT DATUM	: 1615	ELEVATIONS	
DEPTH DRILLER	: 139.2	ELEV. PERM. DATUM:	1615	KB	: 1615
LOG BOTTOM	: 138.72	LOG MEASURED FROM:	1615	DF	: 1615
LOG TOP	: 9.74	DRL MEASURED FROM:	1615	GL	: 1615
CASING DRILLER	: 1.7	LOGGING UNIT	: 8401		
CASING TYPE	: STEEL	FIELD OFFICE	: CALGARY		
CASING THICKNESS:	0	RECORDED BY	: G. MURPHY		
BIT SIZE	: 15.6	BOREHOLE FLUID	: WATER	FILE	: ORIGINAL
MAGNETIC DECL.	: 24.500	RM	: 0	TYPE	: 9055A
MATRIX DENSITY	: 2.68	RM TEMPERATURE	: 0	LOG	: 2
FLUID DENSITY	: 1.0	MATRIX DELTA T	: 173	PLOT	: QUIN 2
NEUTRON MATRIX	: SANDSTONE	FLUID DELTA T	: 690	THRESH:	2500
REMARKS	:				

ANGLE HOLE AZIMUTH 57 INCLINATION 50

ALL SERVICES PROVIDED SUBJECT TO CGC STANDARD TERMS AND CONDITIONS



TOOL CALIBRATION TOOL = 9055A SERIAL NUMBER = 46

	CAL-DATE	CAL-TIME	SRCE	SENSOR	RESPONSE	STANDARD
0	07/28/88	15:07:18	0	GAM(NAT)	0.000 CPS	0.000 API-GR
1	07/28/88	15:07:18	0	GAM(NAT)	0.000 CPS	0.000 API-GR
2	07/28/88	15:20:10	0	POROSITY	0.000 CPS	190.000 CPS
3	07/28/88	15:07:18	0	RES	0.000 CPS	0.000 OHM
4	07/28/88	15:07:18	0	RES	0.000 CPS	0.000 OHM
5	07/28/88	15:07:18	0	SP	0.000 CPS	0.000 MV
6	07/28/88	15:07:18	0	SP	0.000 CPS	0.000 MV
7	07/28/88	15:19:56	0	NEUTRON	0.000 CPS	0.000 API-N
8	07/28/88	15:19:56	0	NEUTRON	190.000 CPS	271.000 API-N

088#

Century

QHR 88013 DEVIATION

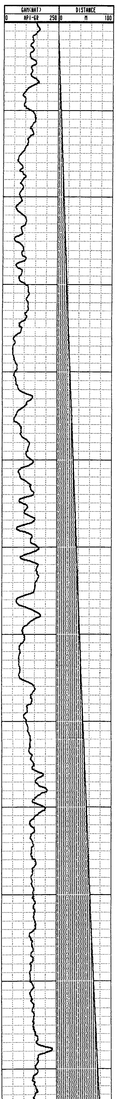
COMPANY	: QUINTETTE COAL LTD.	OTHER SERVICES:	
WELL	: QHR 88013 DEVIATION	GAM.DEN.	
LOCATION/FIELD	: BL 19900ISL 29900 TRANSFER W	NEUT.RES	
COUNTY	:	CAL.DEV	
STATE	: BRITISH COLUMBIA		
SECTION	: TOWNSHIP	: RANGE	:

DATE	: 08/28/88	PERMANENT DATUM	: 1615	ELEVATIONS	
DEPTH DRILLER	: 139.2	ELEV. PERM. DATUM:	1615	KB	: 1615
LOG BOTTOM	: 138.72	LOG MEASURED FROM:	1615	DF	: 1615
LOG TOP	: 9.74	DRL MEASURED FROM:	1615	GL	: 1615
CASING DRILLER	: 1.7	LOGGING UNIT	: 8401		
CASING TYPE	: STEEL	FIELD OFFICE	: CALGARY		
CASING THICKNESS:	0	RECORDED BY	: G. MURPHY		
BIT SIZE	: 15.6	BOREHOLE FLUID	: WATER	FILE	: PROCESSED
MAGNETIC DECL.	: 24.500	RM	: 0	TYPE	: 9055A
MATRIX DENSITY	: 2.69	RM TEMPERATURE	: 0	LOG	: 3
FLUID DENSITY	: 1.0	MATRIX DELTA T	: 173	PLOT	: 001N 6
NEUTRON MATRIX	: SANDSTONE	FLUID DELTA T	: 690	THRESH:	2500
REMARKS	:				

ANGLE HOLE AZIMUTH 37 INCLINATION 50

ALL SERVICES PROVIDED SUBJECT TO CGC STANDARD TERMS AND CONDITIONS

#880



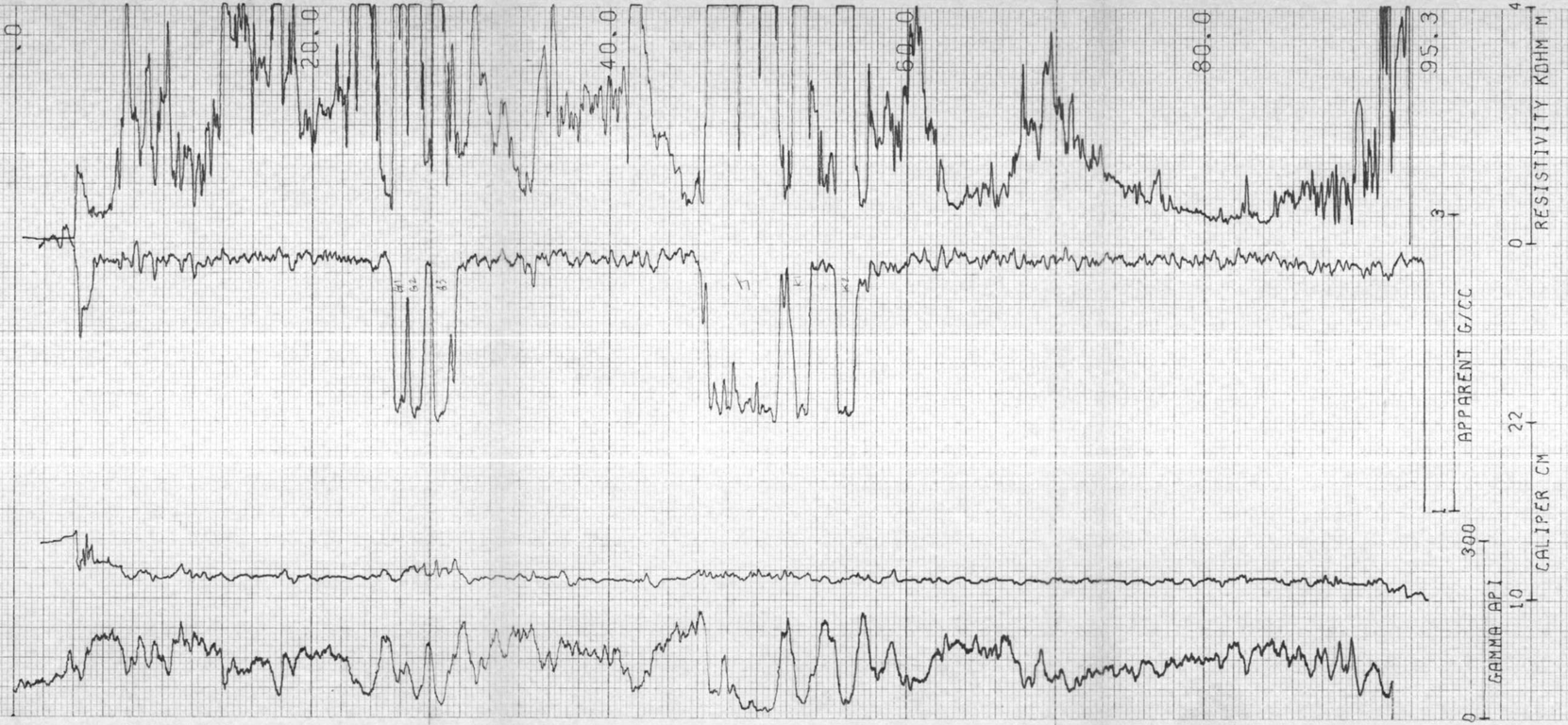
* * * * * * * * * * COMPU-LOG II - VERTICAL DEVIATION * * * * * * * * * *

CLIENT	: QUINTETTE COAL LTD.	HOLE ID.	: QHR 88013 GAM
FIELD OFFICE	: CALGARY	DATE OF LOG	: 08/28/88
DATA FROM	:	PROBE	: 9055A , 46
MAG. DECL.	: 24.500	DEPTH UNITS	: FEET LOG 3

able Depth	True Depth	North Dev.	East Dev.	Distance	Azimuth	SANS	SANSB
10.0	10.00	0.00	0.00	0.0	-.0	0.0	0.0
15.0	14.15	1.73	1.41	2.2	39.1	39.8	34.8
20.0	18.01	4.23	3.33	5.4	38.2	50.1	35.2
25.0	21.85	6.57	5.27	8.4	38.7	38.5	22.7
30.0	25.74	8.97	7.21	11.5	38.8	45.3	50.4
35.0	29.60	11.46	9.06	14.6	38.3	39.3	34.0
40.0	33.48	13.97	10.96	17.8	38.1	38.8	40.1
45.0	37.38	16.47	12.84	20.9	37.9	38.7	32.1
50.0	41.29	18.96	14.72	24.0	37.8	38.3	33.3
55.0	45.21	21.43	16.57	27.1	37.7	38.2	36.5
60.0	49.15	23.88	18.44	30.2	37.7	38.0	37.8
65.0	53.09	26.32	20.32	33.2	37.7	38.1	37.7
70.0	57.04	28.75	22.20	36.3	37.7	37.8	35.6
75.0	60.98	31.16	24.10	39.4	37.7	37.9	37.2
80.0	64.92	33.58	25.99	42.5	37.7	37.7	35.0
85.0	68.87	35.99	27.89	45.5	37.8	37.6	38.3
90.0	72.80	38.43	29.77	48.6	37.8	38.5	36.6
95.0	76.69	40.87	31.75	51.8	37.8	39.3	37.4
100.0	80.52	43.36	33.77	55.0	37.9	39.9	39.8
105.0	84.31	45.85	35.84	58.2	38.0	41.0	35.3
110.0	88.04	48.37	38.01	61.5	38.2	42.2	40.2
115.0	91.76	50.87	40.30	64.9	38.4	44.0	40.3
120.0	95.24	53.37	42.73	68.4	38.7	45.5	48.2
125.0	98.68	55.91	45.17	71.9	38.9	47.8	33.9
130.0	101.94	58.63	47.66	75.6	39.1	50.1	64.9
135.0	105.01	61.20	50.34	79.2	39.4	54.2	79.6
138.7	107.16	63.01	52.42	82.0	39.8	0.0	0.0

CENTURY GEOPHYSICAL CORP. PART NO. 786-0040

CENTURY GEOPHYSICAL CORP. PART NO. 786-0040



COMPU-LOG V6L2 PLOT 08-29-80

QHR88014

GAMMA DENSITY CALIPR

TRANSFER

HOLE DIAMETER : 13.1

PROBE # 9032CI- 956

SENSOR #4 CAL STD CPS = 7127

SENSOR #4 CAL RUN CPS = 4350

SENSOR #4 CAL BIAS = -1

DATA V8L2WH TRUCK # 646

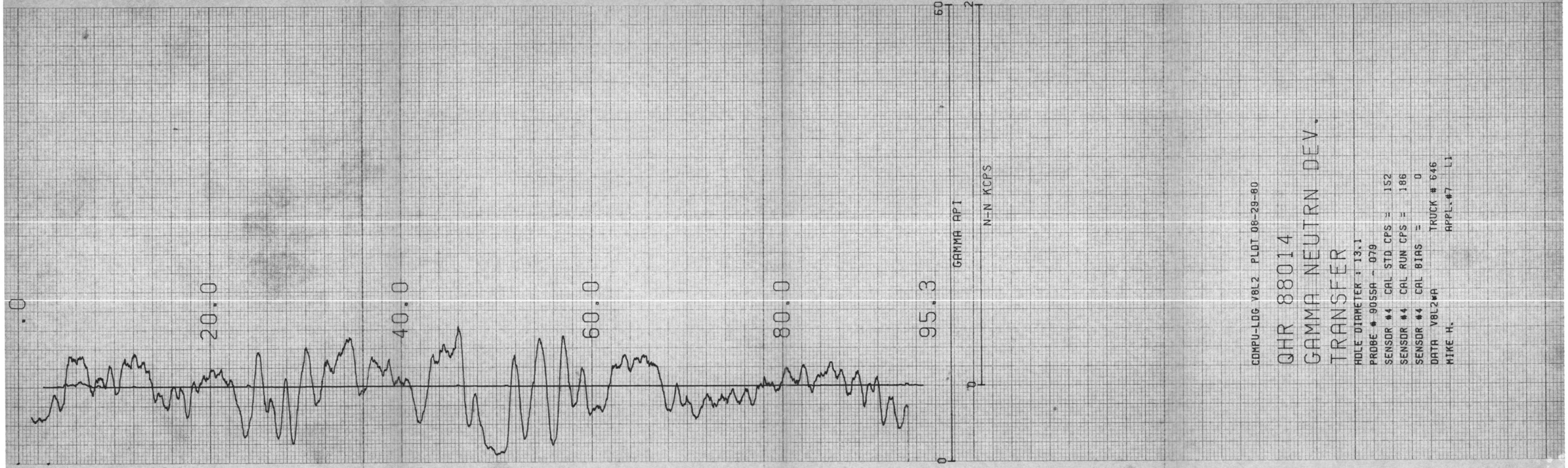
MIKE H. APPL.#30 L1

088#

CENTURY GEOPHYSICAL CORP. PART NO. 786-0040

CENTURY GEOPHYSICAL CORP. PART NO. 786-0040

CENTURY GEOPHYSICAL CORP. PART NO. 786-00



COMPU-LOG V8L2 PLOT 08-29-80

QHR 88014

GAMMA NEUTRN DEV.

TRANSFER

HOLE DIAMETER = 13.1
PROBE # 9055A - 079
SENSOR #4 CAL STD CPS = 1S2
SENSOR #4 CAL RUN CPS = 186
SENSOR #4 CAL BIAS = 0
DATA V8L2#A TRUCK # 646
MIKE H. APPL.#7 L1

088#

137

135

COMPU-LOG V8L2 PLOT 08-29-80

QHR 88014
GAMMA NEUTRON RODS
TRANSFER

HOLE DIAMETER : 13.1
PROBE # 9055A - 079
SENSOR #4 CAL STD CPS = 152
SENSOR #4 CAL RUN CPS = 186
SENSOR #4 CAL BIAS = 0
DATA V8L2*R TRUCK # 646
MIKE H. APPL.#7 L1

#880

CENTURY GEOPHYSICAL CORP. PART NO. 786-0040

CENTURY GEOPHYSICAL CORP. PART NO. 786-0040

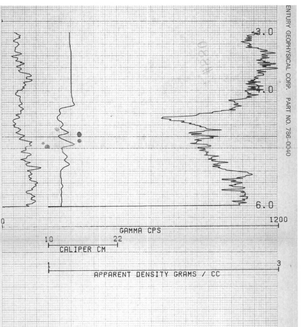
CENTURY GEOPHYSICAL CORP. PART NO. 786-0040

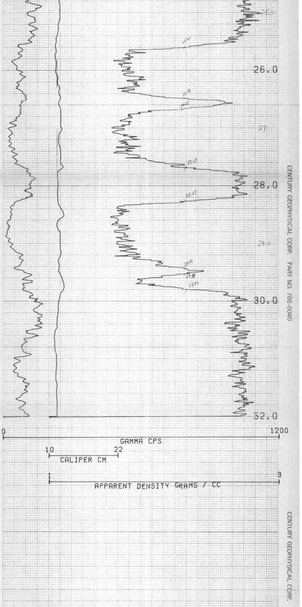
CENTURY GEOPHYSICAL CORP. PART NO. 786-0040

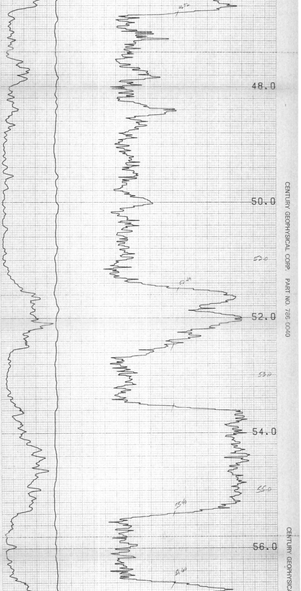
CENTURY GEOPHYSICAL CORP. PART NO. 786-0040

QHR88014
GAMMA - NEUTRON
TRANSFER

#880







COMPU-LOG V8L2 PLOT 08-29-80

QHR88014
GAMMA DENSITY CALIPR
TRANSFER

HOLE DIAMETER : 13.1
PROBE # 9032C1-956
SENSOR #4 CAL STD CPS = 7127
SENSOR #4 CAL RUN CPS = 4950
SENSOR #4 CAL BIAS = -1
DATA V8L2#A TRUCK # 646
MIKE H. APPL.#1708L1

EXPANDED LOG

#880

CENTURY GEOPHYSICAL CORP. PART NO. 786-0040

CENTURY GEOPHYSICAL CORPORATION

* * * * * * * * VERTICAL DEVIATION * * * * * * * *

COMPU-LOG V8L1 DEVIATION

CLIENT : GAMMA NEUTRN DEV.
LOCATION : TRANSFER
DATA FROM : V8L2*A

HOLE ID : QHR 88014
DATE OF LOG : 08-29-80
PROBE : 9055A 0079

TD = TOTAL DEPTH
T = TOP OF ZONE
B = BOTTOM OF ZONE

	DEPTH	TRUE DEPTH	NORTH DEV	EAST DEV	DISTANCE	AZIMUTH	SA	SAB
	.00	.00	.00	.00	.00	.0	.0	.0
	5.00	4.26	-1.14	1.59	1.96	125.5	24.7	125.5
	10.00	8.49	-1.31	.40	1.37	162.9	15.9	261.9
	15.00	12.58	-3.24	-1.36	3.51	202.8	32.6	222.4
	20.00	16.72	-4.85	-3.47	5.97	215.6	32.7	232.7
	25.00	20.84	-6.15	-5.96	8.57	224.1	34.2	242.3
	30.00	25.01	-7.73	-8.17	11.24	226.6	32.9	234.4
	35.00	29.21	-9.36	-10.26	13.89	227.6	32.3	231.9
	40.00	33.38	-10.80	-12.51	16.52	229.2	32.5	237.5
	45.00	37.52	-12.18	-14.86	19.22	230.7	33.4	239.5
	50.00	41.75	-13.78	-17.00	21.88	231.0	32.2	233.0
	55.00	45.98	-15.34	-19.12	24.51	231.2	31.8	233.6
	60.00	50.21	-16.67	-21.39	27.12	232.1	31.8	239.7
	65.00	54.47	-18.16	-23.53	29.73	232.3	31.5	235.0
	70.00	58.71	-19.62	-25.70	32.34	232.6	31.6	236.1
	75.00	62.98	-21.35	-27.59	34.89	232.3	30.9	227.5
	80.00	67.30	-22.77	-29.61	37.36	232.4	29.8	234.9
	85.00	71.66	-24.35	-31.42	39.75	232.2	28.8	228.6
	90.00	75.96	-25.84	-33.42	42.24	232.3	30.0	233.4
	95.00	80.24	-27.14	-35.48	44.67	232.6	29.7	237.6
TD	95.20	80.41	-27.21	-35.56	44.78	232.6	31.7	234.2

#880

#880

Century

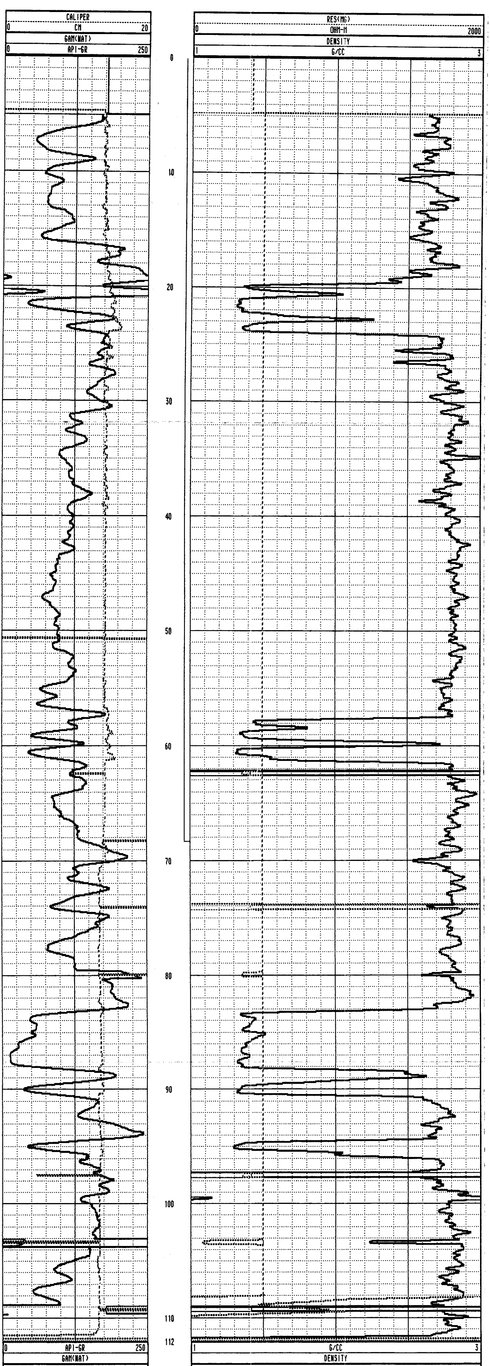
QHR 88015 GAMMA-DENSITY

COMPANY	: QUINTETTE COAL MINE LTD.	OTHER SERVICES:	
WELL	: QHR 88015 GAMMA-DENSITY	DEV.CAL	
LOCATION/FIELD	: BL 21500:SL 27000 TRANSFER W	GAM.DEN	
COUNTY	:	NEUT.RES	
STATE	:		
SECTION	: TOWNSHIP :	RANGE :	

DATE	: 08/31/88	PERMANENT DATUM	: GL	ELEVATIONS	
DEPTH DRILLER	: 114	ELEV. PERM. DATUM	: 1080	KB	: 1080
LOG BOTTOM	: 111.88	LOG MEASURED FROM	: GL	DF	: 1080
LOG TOP	: 0.12	DRL MEASURED FROM	: GL	GL	: 1080
CASING DRILLER	: 000	LOGGING UNIT	: 62		
CASING TYPE	:	FIELD OFFICE	: CALGARY		
CASING THICKNESS	: 00	RECORDED BY	: G.MURPHY		
BIT SIZE	: 12.7	BOREHOLE FLUID	: WATER	FILE	: ORIGINAL
MAGNETIC DECL.	: 24.500	RM	: 0	TYPE	: 9030AA
MATRIX DENSITY	: 2.68	RM TEMPERATURE	: 0	LOG	: 4
FLUID DENSITY	: 1.10	MATRIX DELTA T	: 173	PLOT	: QUIN 3
NEUTRON MATRIX	: SANDSTONE	FLUID DELTA T	: 690	THRESH	: 2500

REMARKS :
ANGLE HOLE AZIMUTH 217 INCLINATION 60

ALL SERVICES PROVIDED SUBJECT TO CGC STANDARD TERMS AND CONDITIONS



TOOL CALIBRATION TOOL = 9030AA SERIAL NUMBER = 404

	CAL-DATE	CAL-TIME	SRCE	SENSOR	RESPONSE	STANDARD
0	07/28/88	13:56:46	0	GAM(NAT)	0.000 CPS	0.000 API-GR
1	07/28/88	13:56:46	0	GAM(NAT)	0.000 CPS	0.000 API-GR
2	07/28/88	14:13:46	0	DENSITY	5615.000 CPS	1.106 G/CC
3	07/28/88	14:13:46	0	DENSITY	2230.500 CPS	2.120 G/CC
4	07/28/88	13:56:46	0	RES(MG)	0.000 CPS	0.000 OHM-M
5	07/28/88	13:56:46	0	RES(MG)	0.000 CPS	0.000 OHM-M
6	07/28/88	15:42:06	0	CALIPER	213.400 CPS	7.500 CM
7	07/28/88	15:42:06	0	CALIPER	1842.500 CPS	17.300 CM
8	07/28/88	13:56:46	0	DENSITYH	0.000 CPS	0.000 G/CC
9	07/28/88	13:56:46	0	DENSITYH	0.000 CPS	0.000 G/CC
10	07/28/88	13:56:46	0	CALIPERL	0.000 CPS	0.000 CM
11	07/28/88	13:56:46	0	CALIPERL	0.000 CPS	0.000 CM

088#

CGC

Century

GHR 86015 GAMMA-DENSITY

COMPANY : QUINETTE COAL HOLD LTD.
WELL : GHR 86015 (DDH 86-15)
LOCATION/FIELD : N. 2,870m/EL. 270m/E. 1,760m/EL. 1,
COUNTY :
STATE :
SECTION : TOWNSHIP : RANGE :

OTHER SERVICES:
GAMMA
GAMLOG
NEUT.DEN

DATE : 06/5/1988
DEPTH DRILLER : 114
LOG BOTTOM : 111.6M
LOG TOP : 0.1M

CASING DRILLER : 000
CASING LOGGER :
CASING THICKNESS: 00

BIT SIZE : 10.2
MAGNETIC DECL. : 24.5DE
MATRIX DENSITY : 2.65
FLUID DENSITY : 1.00
MEASURED FROM : A GROUNDTOME
REMARKS :
HOLE #2/PNTR 317 1KCL/KMT/DN 60

PERMANENT DATUM : GL
ELEV.: KB(m), DATUM: 1088
LOG MEASURED FROM: GL
DRL.MEASURED FROM: GL

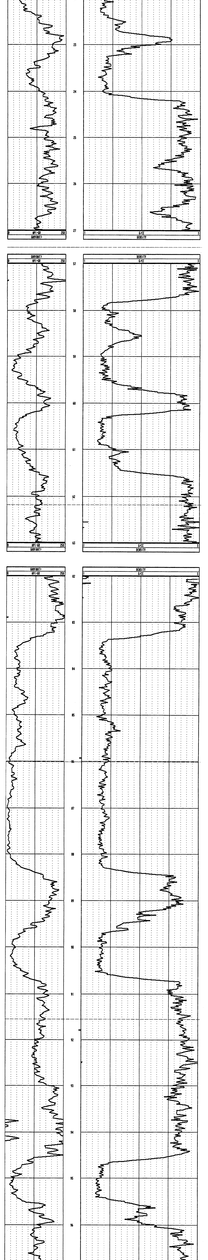
LOGGING UNIT : 10
LOGGED BY : GEOSURVEY
RECORDED BY : K.JOHNSON

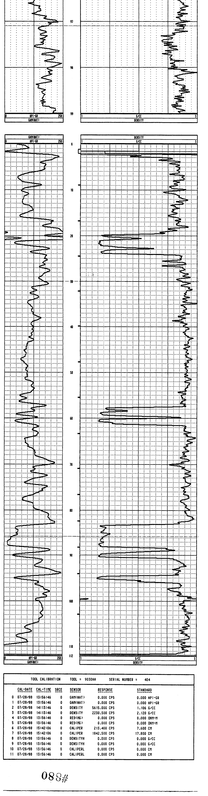
BOREHOLE FLUID : WATER
: 0
DH TEMPERATURE : 0
MAX. REC. TEMP. : 0
FLUID SALIN.T : ANA

ELEVATIONS:
KB : 1090
DF : 1090
GL : 1090

FILE : ORIGINAL
TYPE : NISSHA
LOG : 1
SCALE : 1/ 5
TAKEN: 2500

ALL SERVICES PROVIDED SUBJECT TO CGC STANDARD TERMS AND CONDITIONS





TOOL CALIBRATION : TOOL # : 86004 SERIAL NUMBER # : 424

CAL/SHOT	CAL/LOG	SRCE	SENSOR	RESPONSE	STANDARD
1	07/05/88	12:56:46	G	GAMMA01	0.000 CPS	0.000 API=GR
2	07/05/88	12:56:46	G	GAMMA01	0.000 CPS	0.000 API=GR
3	07/05/88	14:12:46	G	DENS/D	1615.000 CPS	1.100 G/CC
4	07/05/88	14:12:46	G	DENS/D	2200.000 CPS	2.100 G/CC
5	07/05/88	14:12:46	G	DENS/D	0.000 CPS	0.000 G/CC
6	07/05/88	14:12:46	G	DENS/D	0.000 CPS	0.000 GM/CM
7	07/05/88	15:42:26	G	CAL/RSP	215.400 CPS	7.000 IN
8	07/05/88	15:42:26	G	CAL/RSP	1000.000 CPS	7.000 IN
9	07/05/88	15:54:46	G	DENS/TR	0.000 CPS	0.000 G/CC
9	07/05/88	15:54:46	G	DENS/TR	0.000 CPS	0.000 G/CC
10	07/05/88	15:56:16	G	CAL/RSL	0.000 CPS	0.000 IN
11	07/05/88	15:56:16	G	CAL/RSL	0.000 CPS	0.000 IN

#880

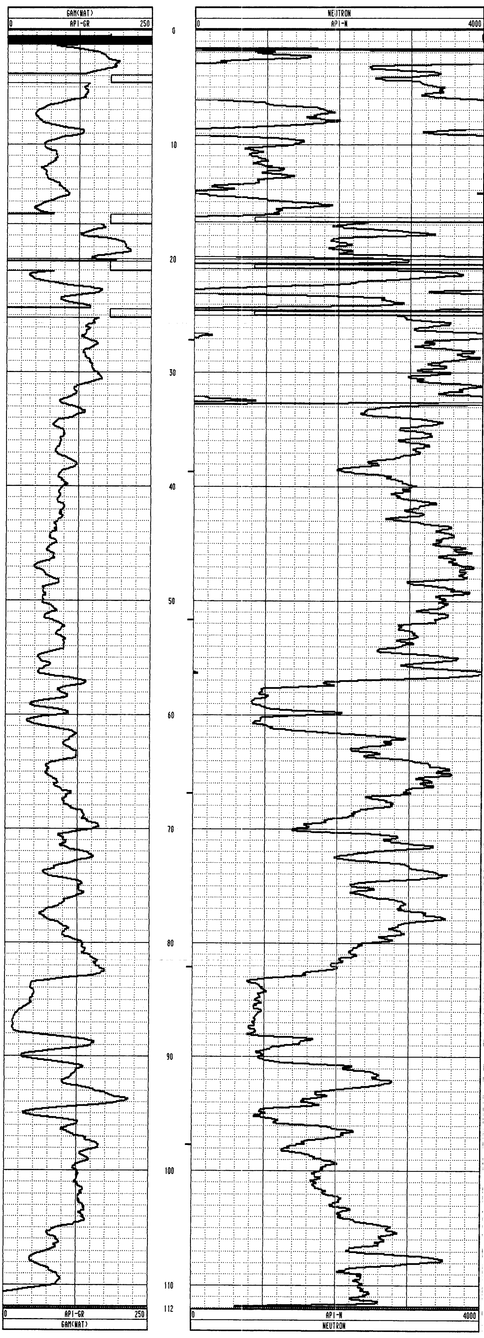
Century

QHR 88015 GAMMA-NEUTRON

COMPANY	: QUINTETTE COAL MINE LTD.	OTHER SERVICES:	
WELL	: QHR 88015 GAMMA-NEUTRON	DEV.CAL	
LOCATION/FIELD	: BL 21500:SL 27000 TRANSFER W	GAM.DEN	
COUNTY	:	NEUT.RES	
STATE	:		
SECTION	: TOWNSHIP :	RANGE :	
DATE	: 08/31/88	PERMANENT DATUM : GL	ELEVATIONS
DEPTH DRILLER	: 114	ELEV. PERM. DATUM: 1080	KB : 1080
LOG BOTTOM	: 111.92	LOG MEASURED FROM: GL	DF : 1080
LOG TOP	: 0.36	DRL MEASURED FROM: GL	GL : 1080
CASING DRILLER	: 000	LOGGING UNIT : 62	
CASING TYPE	:	FIELD OFFICE : CALGARY	
CASING THICKNESS	: 00	RECORDED BY : G.MURPHY	
BIT SIZE	: 12.7	BOREHOLE FLUID : WATER	FILE : ORIGINAL
MAGNETIC DECL.	: 24.500	RM : 0	TYPE : 9055A
MATRIX DENSITY	: 2.68	RM TEMPERATURE : 0	LOG : 3
FLUID DENSITY	: 1.10	MATRIX DELTA T : 173	PLOT : QUIN 2
NEUTRON MATRIX	: SANDSTONE	FLUID DELTA T : 690	THRESH: 2500

REMARKS :
ANGLE HOLE AZIMUTH 217 INCLINATION 60

ALL SERVICES PROVIDED SUBJECT TO CGC STANDARD TERMS AND CONDITIONS



TOOL CALIBRATION TOOL = 9055A SERIAL NUMBER = 46

	CAL-DATE	CAL-TIME	SRCE	SENSOR	RESPONSE	STANDARD
0	07/28/88	15:07:18	0	GAM(NAT)	0.000 CPS	0.000 API-GR
1	07/28/88	15:07:18	0	GAM(NAT)	0.000 CPS	0.000 API-GR
2	07/28/88	15:20:10	0	POROSITY	0.000 CPS	190.000 CPS
3	07/28/88	15:07:18	0	RES	0.000 CPS	0.000 OHM
4	07/28/88	15:07:18	0	RES	0.000 CPS	0.000 OHM
5	07/28/88	15:07:18	0	SP	0.000 CPS	0.000 MV
6	07/28/88	15:07:18	0	SP	0.000 CPS	0.000 MV
7	07/28/88	15:19:56	0	NEUTRON	0.000 CPS	0.000 API-N
8	07/28/88	15:19:56	0	NEUTRON	190.000 CPS	271.000 API-N

088#

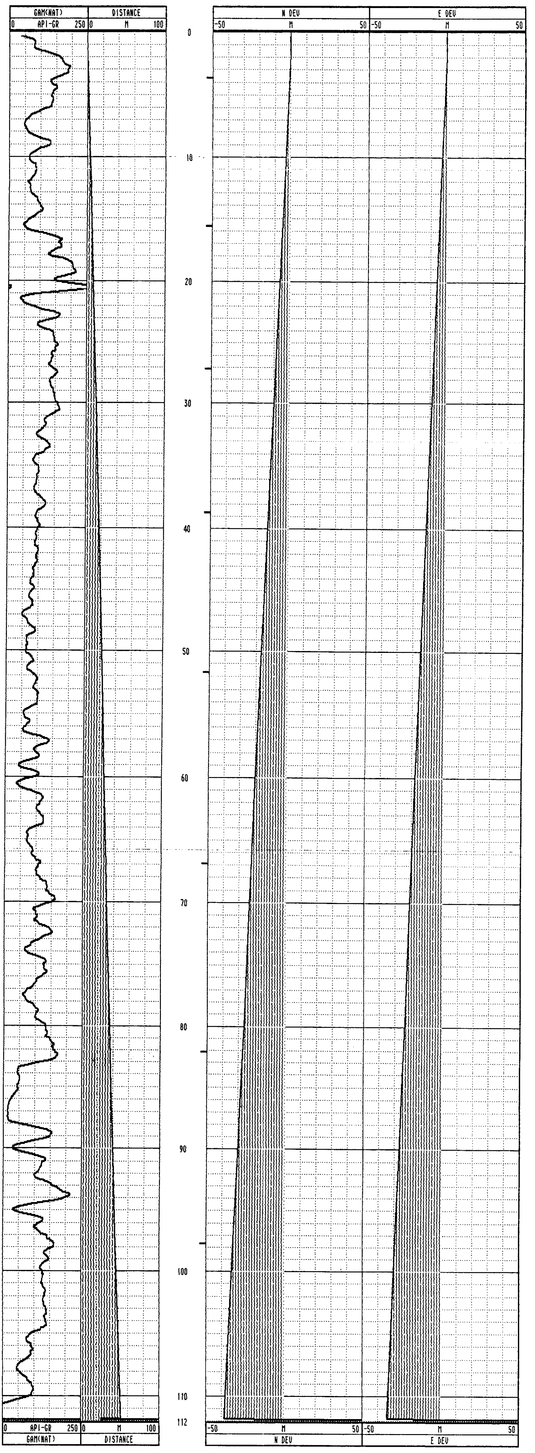
Century 380

QHR 88015 DEVIATION

COMPANY	: QUINTETTE COAL MINE LTD.			OTHER SERVICES:	
WELL	: QHR 88015 DEVIATION			DEV.CAL	
LOCATION/FIELD	: BL 21500:SL 27000 TRANSFER W			GAM.DEN	
COUNTY	:			NEUT.RES	
STATE	:				
SECTION	:	TOWNSHIP	:	RANGE	:
DATE	: 08/31/88	PERMANENT DATUM	: GL	ELEVATIONS	
DEPTH DRILLER	: 114	ELEV. PERM. DATUM:	1080	KB	: 1080
LOG BOTTOM	: 111.92	LOG MEASURED FROM:	GL	DF	: 1080
LOG TOP	: 0.36	DRL MEASURED FROM:	GL	GL	: 1080
CASING DRILLER	: 000	LOGGING UNIT	: 62		
CASING TYPE	:	FIELD OFFICE	: CALGARY		
CASING THICKNESS:	00	RECORDED BY	: G.MURPHY		
BIT SIZE	: 12.7	BOREHOLE FLUID	: WATER	FILE	: PROCESSED
MAGNETIC DECL.	: 24.500	RM	: 0	TYPE	: 9055A
MATRIX DENSITY	: 2.68	RM TEMPERATURE	: 0	LOG	: 6
FLUID DENSITY	: 1.10	MATRIX DELTA T	: 173	PLOT	: QUIN 6
NEUTRON MATRIX	: SANDSTONE	FLUID DELTA T	: 690	THRESH:	2500
REMARKS	:				

ANGLE HOLE AZIMUTH 217 INCLINATION 60

ALL SERVICES PROVIDED SUBJECT TO CGC STANDARD TERMS AND CONDITIONS



* * * * * * * * * * COMPU-LOG II - VERTICAL DEVIATION * * * * * * * * * *

CLIENT	: QUINTETTE COAL MINE	HOLE ID.	: QHR 88015 GAM
FIELD OFFICE	: CALGARY	DATE OF LOG	: 09/01/88
DATA FROM	:	PROBE	: 9055A . 46
MAG. DECL.	: 24.500	DEPTH UNITS	: METER LOG 6

Cable Depth	True Depth	North Dev.	East Dev.	Distance	Azimuth	SANG	SANGB
0.0	0.00	0.00	0.00	0.0	0.0	0.0	0.0
5.0	4.59	-1.09	-.98	1.5	222.2	29.2	210.5
10.0	8.94	-2.72	-2.69	3.8	224.7	30.5	227.2
15.0	13.33	-4.44	-4.18	6.1	223.3	28.3	211.0
20.0	17.76	-6.20	-5.64	8.4	222.3	27.6	215.2
25.0	22.20	-7.97	-7.06	10.7	221.5	27.3	153.0
30.0	26.61	-9.72	-8.63	13.0	221.6	28.7	225.5
35.0	31.02	-11.47	-10.18	15.3	221.6	27.6	222.3
40.0	35.45	-13.20	-11.72	17.6	221.6	27.4	216.6
45.0	39.90	-14.91	-13.24	19.9	221.6	27.0	222.4
50.0	44.37	-16.58	-14.73	22.2	221.6	26.4	220.1
55.0	48.85	-18.25	-16.19	24.4	221.6	26.1	220.7
60.0	53.34	-19.87	-17.65	26.6	221.6	25.9	228.9
65.0	57.85	-21.46	-19.12	28.7	221.7	25.4	221.2
70.0	62.37	-23.06	-20.54	30.9	221.7	25.5	224.4
75.0	66.87	-24.66	-22.01	33.0	221.7	26.3	220.3
80.0	71.33	-26.31	-23.53	35.3	221.8	27.3	212.7
85.0	75.74	-28.08	-25.09	37.7	221.8	28.5	221.7
90.0	80.12	-29.86	-26.70	40.1	221.8	29.2	226.7
95.0	84.47	-31.66	-28.38	42.5	221.9	29.8	219.0
100.0	88.80	-33.55	-30.00	45.0	221.8	30.5	220.9
105.0	93.08	-35.52	-31.66	47.6	221.7	31.5	224.6
110.0	97.33	-37.47	-33.42	50.2	221.7	31.4	217.1
111.9	98.97	-38.20	-34.08	51.2	221.7	0.0	0.0

#8 80

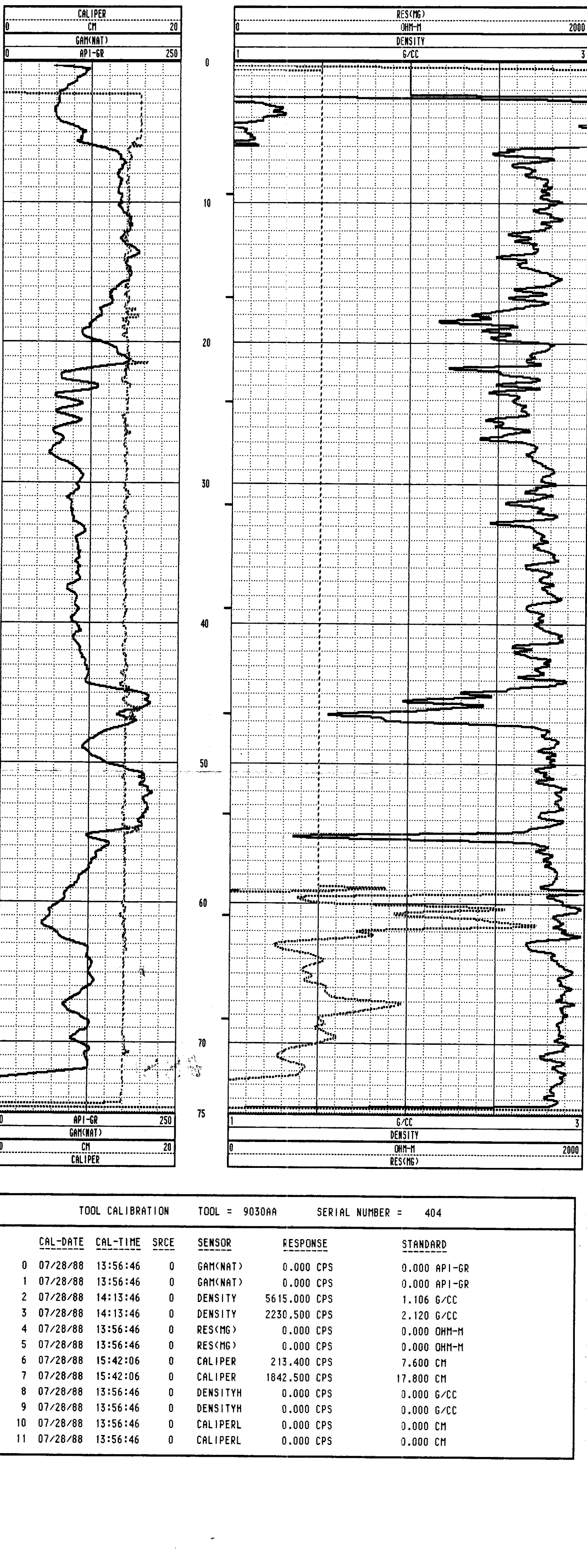
Century

QHR 88016 GAMMA-DENSITY

COMPANY	: QUINTETTE COAL MINE LTD.			OTHER SERVICES:	
WELL	: QHR 88016 GAMMA-DENSITY			DEV.CAL	
LOCATION/FIELD	: BL 21350:SL 27150 TRANSFER W			GAM.DEN	
COUNTY	: BRITISH COLUMBIA			NEUT.RES	
STATE	:				
SECTION	:	TOWNSHIP	:	RANGE	:
DATE	: 09/01/88	PERMANENT DATUM	: GL	ELEVATIONS	
DEPTH DRILLER	: 75	ELEV. PERM. DATUM	: 1080	KB	: 1080
LOG BOTTOM	: 74.76	LOG MEASURED FROM	: GL	DF	: 1080
LOG TOP	: 0.30	DRL MEASURED FROM	: GL	GL	: 1080
CASING DRILLER	: 6	LOGGING UNIT	: 8401		
CASING TYPE	:	FIELD OFFICE	: CALGARY		
CASING THICKNESS	: 00	RECORDED BY	: G.MURPHY		
BIT SIZE	: 12.7	BOREHOLE FLUID	: WATER	FILE	: ORIGINAL
MAGNETIC DECL.	: 24.500	RM	: 0	TYPE	: 9030AA
MATRIX DENSITY	: 2.68	RM TEMPERATURE	: 0	LOG	: 5
FLUID DENSITY	: 1.10	MATRIX DELTA T	: 173	PLOT	: QUIN 3
NEUTRON MATRIX	: SANDSTONE	FLUID DELTA T	: 690	THRESH	: 2500

REMARKS :
VERTICAL HOLE

ALL SERVICES PROVIDED SUBJECT TO CGC STANDARD TERMS AND CONDITIONS



TOOL CALIBRATION TOOL = 9030AA SERIAL NUMBER = 404

	CAL-DATE	CAL-TIME	SRCE	SENSOR	RESPONSE	STANDARD
0	07/28/88	13:56:46	0	GAM(NAT)	0.000 CPS	0.000 API-GR
1	07/28/88	13:56:46	0	GAM(NAT)	0.000 CPS	0.000 API-GR
2	07/28/88	14:13:46	0	DENSITY	5615.000 CPS	1.106 G/CC
3	07/28/88	14:13:46	0	DENSITY	2230.500 CPS	2.120 G/CC
4	07/28/88	13:56:46	0	RES(MG)	0.000 CPS	0.000 OHM-M
5	07/28/88	13:56:46	0	RES(MG)	0.000 CPS	0.000 OHM-M
6	07/28/88	15:42:06	0	CALIPER	213.400 CPS	7.600 CM
7	07/28/88	15:42:06	0	CALIPER	1842.500 CPS	17.800 CM
8	07/28/88	13:56:46	0	DENSITYH	0.000 CPS	0.000 G/CC
9	07/28/88	13:56:46	0	DENSITYH	0.000 CPS	0.000 G/CC
10	07/28/88	13:56:46	0	CALIPERL	0.000 CPS	0.000 CM
11	07/28/88	13:56:46	0	CALIPERL	0.000 CPS	0.000 CM

Century

QHR 88016 GAMMA-DENSITY

COMPANY	: QUINTETTE COAL MINE LTD.		
WELL	: QHR 88016 GAMMA-DENSITY		
LOCATION/FIELD	: BL 2135015L 27150 TRANSFER W		
COUNTY	: BRITISH COLUMBIA		
STATE	:		
SECTION	:	TOWNSHIP	:
RANGE	:		

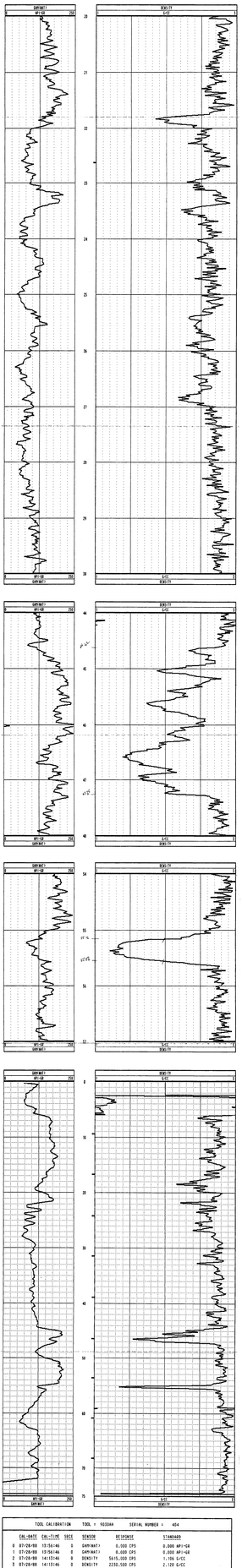
OTHER SERVICES:
DEV.CAL
GAMLDEN
NEUT.DES

DATE	: 09/01/88	PERMANENT DATUM	: GL
DEPTH DRILLER	: 75	ELEV. PERM. DATUM:	1080
LOG BOTTOM	: 74.76	LOG MEASURED FROM:	GL
LOG TOP	: 0.30	DRL MEASURED FROM:	GL
CASING DRILLER	: 6	LOGGING UNIT	: 8401
CASING TYPE	:	FIELD OFFICE	: CALGARY
CASING THICKNESS:	00	RECORDED BY	: G.MURPHY
BIT SIZE	: 12.7	BOREHOLE FLUID	: WATER
MAGNETIC DECL.	: 24.500	RM	: 0
MATRIX DENSITY	: 2.68	RM TEMPERATURE	: 0
FLUID DENSITY	: 1.10	MATRIX DELTA T	: 175
NEUTRON MATRIX	: SANDSTONE	FLUID DELTA T	: 690
REMARKS	:		
VERTICAL HOLE			

ELEVATIONS
KB : 1080
DF : 1080
GL : 1080

FILE : ORIGINAL
TYPE : 9050AA
LOG : 4
PLOT : QUIN 5
THRESH: 2500

ALL SERVICES PROVIDED SUBJECT TO CGC STANDARD TERMS AND CONDITIONS



TOOL CALIBRATION TOOL : 9050AA SERIAL NUMBER : 404

	CAL-DATE	CAL-TIME	SPEC	SENSOR	RESPONSE	STANDARD
0	07/28/88	13:56:46	0	GAMMA(T)	0.000 CPS	0.000 API-GR
1	07/28/88	13:56:46	0	GAMMA(T)	0.000 CPS	0.000 API-GR
2	07/28/88	14:13:46	0	DENSITY	5615.000 CPS	1.106 G/CC
3	07/28/88	14:13:46	0	DENSITY	2230.500 CPS	2.120 G/CC
4	07/28/88	13:56:46	0	RES(MG)	0.000 CPS	0.000 OHM-M
5	07/28/88	13:56:46	0	RES(MG)	0.000 CPS	0.000 OHM-M
6	07/28/88	15:42:06	0	CALIPER	213.400 CPS	7.600 CM
7	07/28/88	15:42:06	0	CALIPER	1842.500 CPS	17.800 CM
8	07/28/88	13:56:46	0	DENSITY	0.000 CPS	0.000 G/CC
9	07/28/88	13:56:46	0	DENSITY	0.000 CPS	0.000 G/CC
10	07/28/88	13:56:46	0	CALIPER1	0.000 CPS	0.000 CM
11	07/28/88	13:56:46	0	CALIPER1	0.000 CPS	0.000 CM

#880

Century

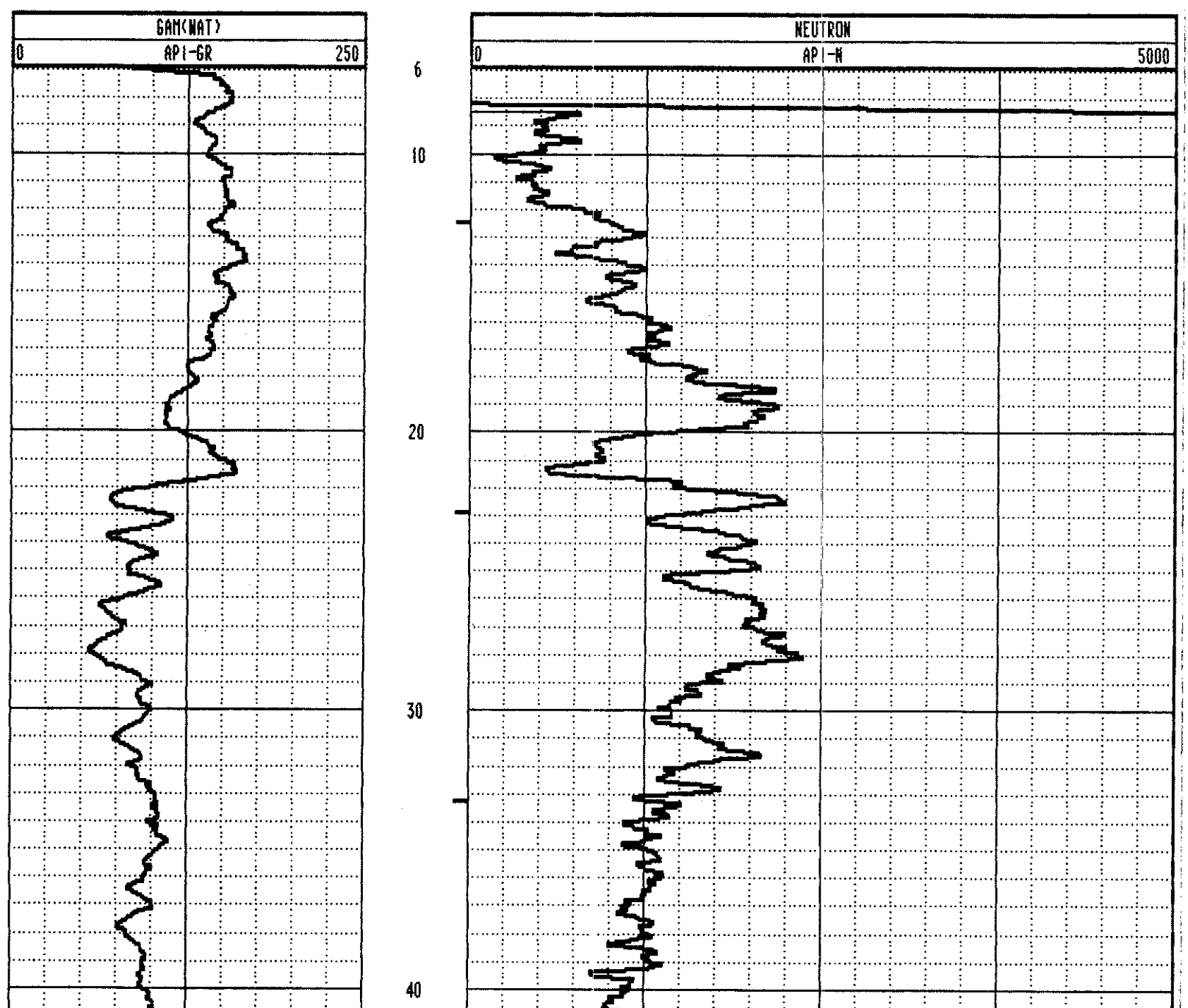
CGC

QHR 88016 GAMMA-NEUTRON

COMPANY	: QUINTETTE COAL MINE LTD.			OTHER SERVICES:	
WELL	: QHR 88016 GAMMA-NEUTRON			DEV.CAL	
LOCATION/FIELD	: BL 21350:SL 27150 TRANSFER W			GAM.DEN	
COUNTY	: BRITISH COLUMBIA			NEUT.RES	
STATE	:				
SECTION	:	TOWNSHIP	:	RANGE	:
DATE	: 09/01/88	PERMANENT DATUM	: GL	ELEVATIONS	
DEPTH DRILLER	: 75	ELEV. PERM. DATUM	: 1080	KB	: 1080
LOG BOTTOM	: 74.90	LOG MEASURED FROM	: GL	DF	: 1080
LOG TOP	: 6.98	DRL MEASURED FROM	: GL	GL	: 1080
CASING DRILLER	: 6	LOGGING UNIT	: 8401		
CASING TYPE	:	FIELD OFFICE	: CALGARY		
CASING THICKNESS	: 00	RECORDED BY	: G.MURPHY		
BIT SIZE	: 12.7	BOREHOLE FLUID	: WATER	FILE	: ORIGINAL
MAGNETIC DECL.	: 24.500	RM	: 0	TYPE	: 9055A
MATRIX DENSITY	: 2.68	RM TEMPERATURE	: 0	LOG	: 4
FLUID DENSITY	: 1.10	MATRIX DELTA T	: 173	PLOT	: QUIN 2
NEUTRON MATRIX	: SANDSTONE	FLUID DELTA T	: 690	THRESH	: 2500
REMARKS	:				

VERTICAL HOLE

ALL SERVICES PROVIDED SUBJECT TO CGC STANDARD TERMS AND CONDITIONS



TOOL CALIBRATION TOOL = 9055A SERIAL NUMBER = 46

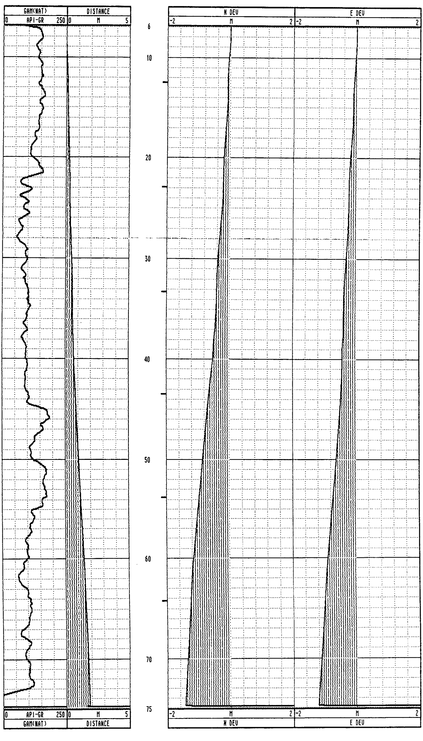
	CAL-DATE	CAL-TIME	SRCE	SENSOR	RESPONSE	STANDARD
0	07/28/88	15:07:18	0	GAM(NAT)	0.000 CPS	0.000 API-GR
1	07/28/88	15:07:18	0	GAM(NAT)	0.000 CPS	0.000 API-GR
2	07/28/88	15:20:10	0	POROSITY	0.000 CPS	190.000 CPS
3	07/28/88	15:07:18	0	RES	0.000 CPS	0.000 OHM
4	07/28/88	15:07:18	0	RES	0.000 CPS	0.000 OHM
5	07/28/88	15:07:18	0	SP	0.000 CPS	0.000 MV
6	07/28/88	15:07:18	0	SP	0.000 CPS	0.000 MV
7	07/28/88	15:19:56	0	NEUTRON	0.000 CPS	0.000 API-N
8	07/28/88	15:19:56	0	NEUTRON	190.000 CPS	271.000 API-N

QHR 88016 DEVIATION

COMPANY	: QUINTETTE COAL MINE LTD.			OTHER SERVICES:	
WELL	: QHR 88016 DEVIATION			DEV.CAL	
LOCATION/FIELD	: 6L 21350:SL 27150 TRANSFER W			GAM.DEN	
COUNTY	: BRITISH COLUMBIA			NEUT.RES	
STATE	:				
SECTION	:	TOWNSHIP	:	RANGE	:
DATE	: 09/01/88	PERMANENT DATUM	: GL	ELEVATIONS	
DEPTH DRILLER	: 75	ELEV. PERM. DATUM:	1080	KB	: 1080
LOG BOTTOM	: 74.90	LOG MEASURED FROM:	GL	DF	: 1080
LOG TOP	: 6.98	DRL MEASURED FROM:	GL	GL	: 1080
CASING DRILLER	: 6	LOGGING UNIT	: 8401		
CASING TYPE	:	FIELD OFFICE	: CALGARY		
CASING THICKNESS:	00	RECORDED BY	: G.MURPHY		
BIT SIZE	: 12.7	BOREHOLE FLUID	: WATER	FILE	: PROCESSED
MAGNETIC DECL.	: 24.500	RM	: 0	TYPE	: 9055A
MATRIX DENSITY	: 2.68	RM TEMPERATURE	: 0	LOG	: 5
FLUID DENSITY	: 1.10	MATRIX DELTA T	: 173	PLOT	: QUIN 6
NEUTRON MATRIX	: SANDSTONE	FLUID DELTA T	: 690	THRESH:	2500
REMARKS	:				
VERTICAL HOLE					

ALL SERVICES PROVIDED SUBJECT TO CGC STANDARD TERMS AND CONDITIONS

#880



* * * * * * * * * * COMPU-LOG II - VERTICAL DEVIATION * * * * * * * * * *

CLIENT	: QUINTETTE COAL MINE	HOLE ID.	: QHR 88016 DEV
FIELD OFFICE	: CALGARY	DATE OF LOG	: 09/01/88
DATA FROM	:	PROBE	: 90256 , 46
MAG. DECL.	: 24.500	DEPTH UNITS	: FEET LOG 5

Cable Depth	True Depth	North Dev.	East Dev.	Distance	Azimuth	SANG	SANGB
7.0	7.00	0.00	0.00	0.0	-.0	0.0	0.0
8.0	8.00	0.00	0.00	0.0	-.0	0.0	0.0
9.0	9.00	-.01	-.01	0.0	205.2	1.7	208.7
10.0	10.00	-.04	-.02	0.0	208.8	2.0	222.1
11.0	11.00	-.06	-.04	0.1	213.5	1.8	219.2
12.0	12.00	-.08	-.06	0.1	219.7	1.6	254.7
13.0	13.00	-.08	-.09	0.1	225.8	1.2	266.5
14.0	14.00	-.08	-.10	0.1	231.6	0.4	222.0
15.0	15.00	-.09	-.11	0.1	229.2	0.9	200.7
16.0	16.00	-.11	-.11	0.2	225.0	1.6	191.4
17.0	17.00	-.13	-.12	0.2	222.0	1.6	212.7
18.0	18.00	-.16	-.14	0.2	221.4	1.6	232.4
19.0	19.00	-.17	-.16	0.2	222.5	1.6	228.4
20.0	20.00	-.19	-.18	0.3	223.9	1.4	233.8
21.0	21.00	-.20	-.20	0.3	225.2	1.4	248.3
22.0	22.00	-.21	-.22	0.3	226.5	0.7	258.3
23.0	23.00	-.21	-.23	0.3	227.0	0.5	202.9
24.0	24.00	-.22	-.23	0.3	226.3	0.7	176.1
25.0	25.00	-.24	-.23	0.3	224.1	1.1	215.0
26.0	25.99	-.26	-.24	0.4	222.5	1.1	214.0
27.0	26.99	-.29	-.25	0.4	220.4	2.1	207.2
28.0	27.99	-.32	-.27	0.4	219.7	1.7	210.8
29.0	28.99	-.35	-.28	0.4	219.5	1.8	218.8
30.0	29.99	-.37	-.31	0.5	219.8	1.5	229.9
31.0	30.99	-.39	-.33	0.5	220.2	1.6	230.9
32.0	31.99	-.40	-.35	0.5	221.0	1.1	245.1
33.0	32.99	-.41	-.36	0.5	221.9	0.7	237.6
34.0	33.99	-.41	-.38	0.6	222.3	1.0	221.0
35.0	34.99	-.42	-.38	0.6	222.2	0.9	174.7
36.0	35.99	-.44	-.39	0.6	221.7	0.6	159.9
37.0	36.99	-.45	-.39	0.6	220.4	1.5	176.4
38.0	37.99	-.48	-.40	0.6	219.4	2.1	216.3
39.0	38.99	-.51	-.42	0.7	219.7	0.8	209.4
40.0	39.99	-.52	-.42	0.7	218.8	1.6	181.3
41.0	40.99	-.56	-.43	0.7	217.6	2.0	194.9
42.0	41.99	-.59	-.44	0.7	216.6	2.4	208.8
43.0	42.99	-.63	-.46	0.8	216.1	2.0	217.6
44.0	43.99	-.66	-.47	0.8	215.6	2.2	197.7
45.0	44.99	-.69	-.49	0.9	215.4	2.3	216.9
46.0	45.99	-.72	-.52	0.9	215.5	2.3	224.1
47.0	46.98	-.76	-.54	0.9	215.7	2.4	216.3
48.0	47.98	-.79	-.57	1.0	215.8	2.3	211.8
49.0	48.98	-.82	-.59	1.0	216.0	2.2	220.5
50.0	49.98	-.85	-.62	1.0	216.0	2.2	220.6
51.0	50.98	-.88	-.64	1.1	216.2	2.2	222.9
52.0	51.98	-.90	-.67	1.1	216.5	2.5	226.4
53.0	52.98	-.93	-.70	1.2	216.7	2.3	212.1
54.0	53.98	-.96	-.72	1.2	216.8	2.3	218.1
55.0	54.98	-.99	-.75	1.2	217.1	2.4	225.4
56.0	55.98	-1.03	-.78	1.3	217.3	2.5	218.7
57.0	56.98	-1.06	-.81	1.3	217.5	2.2	222.9
58.0	57.98	-1.08	-.83	1.4	217.4	2.3	217.6
59.0	58.98	-1.11	-.86	1.4	217.6	2.3	229.1
60.0	59.97	-1.14	-.89	1.4	217.8	2.4	226.9
61.0	60.97	-1.18	-.92	1.5	217.9	2.4	220.0
62.0	61.97	-1.20	-.94	1.5	218.1	1.5	231.9
63.0	62.97	-1.21	-.96	1.5	218.2	1.5	235.4
64.0	63.97	-1.23	-.98	1.6	218.5	1.6	232.6
65.0	64.97	-1.25	-1.00	1.6	218.7	1.6	228.8
66.0	65.97	-1.27	-1.02	1.6	218.9	1.7	233.7
67.0	66.97	-1.29	-1.05	1.7	219.1	1.7	231.8
68.0	67.97	-1.30	-1.07	1.7	219.3	1.6	231.0
69.0	68.97	-1.32	-1.09	1.7	219.4	1.7	225.7
70.0	69.97	-1.34	-1.11	1.7	219.6	1.5	226.1
71.0	70.97	-1.36	-1.13	1.8	219.7	1.8	228.5
72.0	71.97	-1.38	-1.15	1.8	219.9	1.5	225.9
73.0	72.97	-1.39	-1.17	1.8	220.0	1.7	232.2
74.0	73.97	-1.41	-1.19	1.8	220.2	1.8	228.4
74.9	74.87	-1.43	-1.21	1.9	220.3	0.0	0.0
75.0	0.00	0.00	0.00	0.0	0.0	0.0	0.0

Century #380

QHR 88017 GAMMA DENSITY

COMPANY	: QUINTETTE COAL MINE LTD.				
WELL	: QHR 88017 GAMMA DENSITY				
LOCATION/FIELD	:				
COUNTY	: BRITSH COLUMBIA				
STATE	:				
SECTION	:	TOWNSHIP	:	RANGE	:
DATE	: 09/02/88	PERMANENT DATUM	: GL	ELEVATIONS	
DEPTH DRILLER	: 84	ELEV. PERM. DATUM:		KB	:
LOG BOTTOM	: 84.08	LOG MEASURED FROM:	GL	DF	:
LOG TOP	: 0.28	DRL MEASURED FROM:	GL	GL	:
CASING DRILLER	: 1.5	LOGGING UNIT	: 8401		
CASING TYPE	: STEEL	FIELD OFFICE	: CALGARY		
CASING THICKNESS	: 00	RECORDED BY	: E.SVEDLUND		
BIT SIZE	: 12.7	BOREHOLE FLUID	: WATER	FILE	: ORIGINAL
MAGNETIC DECL.	: 24.500	RM	: 0	TYPE	: 9030AA
MATRIX DENSITY	: 2.68	RM TEMPERATURE	: 0	LOG	: 6
FLUID DENSITY	: 1.10	MATRIX DELTA T	: 173	PLOT	: QUIN 3
NEUTRON MATRIX	: SANDSTONE	FLUID DELTA T	: 690	THRESH	: 2500
REMARKS	:				

VERTICAL HOLE

OTHER SERVICES:
DEV.CAL
GAM.DEN
NEUT.RES

ALL SERVICES PROVIDED SUBJECT TO CGC STANDARD TERMS AND CONDITIONS

TOOL CALIBRATION TOOL = 9030AA SERIAL NUMBER = 404

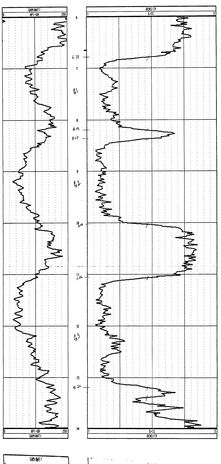
	CAL-DATE	CAL-TIME	SRCE	SENSOR	RESPONSE	STANDARD
0	07/28/88	13:56:46	0	GAM(NAT)	0.000 CPS	0.000 API-GR
1	07/28/88	13:56:46	0	GAM(NAT)	0.000 CPS	0.000 API-GR
2	07/28/88	14:13:46	0	DENSITY	5615.000 CPS	1.106 G/CC
3	07/28/88	14:13:46	0	DENSITY	2230.500 CPS	2.120 G/CC
4	07/28/88	13:56:46	0	RES(MG)	0.000 CPS	0.000 OHM-M
5	07/28/88	13:56:46	0	RES(MG)	0.000 CPS	0.000 OHM-M
6	07/28/88	15:42:06	0	CALIPER	213.400 CPS	7.600 CM
7	07/28/88	15:42:06	0	CALIPER	1842.500 CPS	17.800 CM
8	07/28/88	13:56:46	0	DENSITYH	0.000 CPS	0.000 G/CC
9	07/28/88	13:56:46	0	DENSITYH	0.000 CPS	0.000 G/CC
10	07/28/88	13:56:46	0	CALIPERL	0.000 CPS	0.000 CM
11	07/28/88	13:56:46	0	CALIPERL	0.000 CPS	0.000 CM

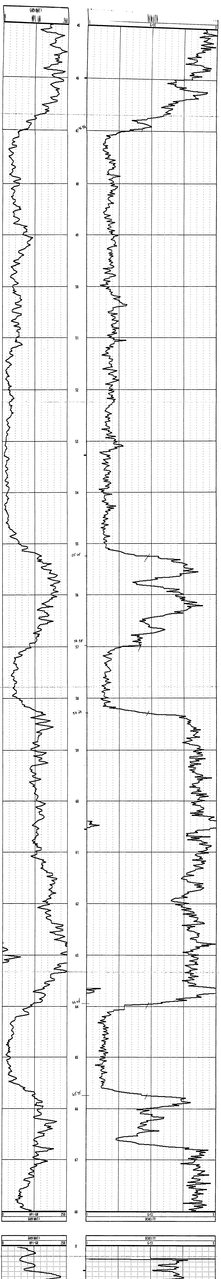
Century

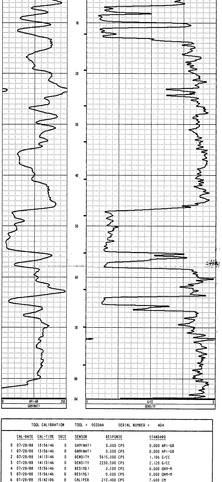
QHR 88017 GAMMA DENSITY

COMPANY	: QUINSETTE COAL MINE LTD.	OTHER SERVICES:	
WELL	: QHR 88017 GAMMA DENSITY	DENSITY	
LOCATION/FIELD	:	GAMMA	
COUNTY	: BRITISH COLUMBIA	NEUTRONS	
STATE	:		
SECTION	:	TOWNSHIP :	RANGE :
DATE	: 09-02-88	PERMANENT DATUM : GL	ELEVATIONS
DEPTH DRILLER	: 64	ELEV. PERM. DATUM :	KB :
LOG BOTTOM	: 64.00	LOG MEASURED FROM: GL	DF :
LOG TOP	: 0.20	DRL MEASURED FROM: GL	GL :
CASING DRILLER	: 1.5	LOGGING UNIT : 8401	
CASING TYPE	: STEEL	FIELD OFFICE : CALGARY	
CASING THICKNESS:	0	RECORDED BY : E.SIEBLUNG	
BIT SIZE	: 12.3	BOREHOLE FLUID : WATER	FILE : ORIGINAL
MAGNETIC DECL.	: 24.500	RM : 0	TYPE : 9855AA
MAX RECORDED TEMP	: 2.5	RM TEMPERATURE : 0	LOG : 2
FLUID DENSITY	: 1.10	MATRIX DELTA T : 175	PLOT : QUIN 5
NEUTRON MATRIX	: SANDSTONE	FLUID DELTA T : 690	THRESH: 2500
REMARKS			
VERTICAL HOLE			

ALL SERVICES PROVIDED SUBJECT TO CSC STANDARD TERMS AND CONDITIONS







TOOL CALIBRATION TOOL = 9855AA SERIAL NUMBER = 404

CALIBRATE	CALIBRATE	SPEED	SENSOR	RESPONSE	STANDARD
0	07-09-88	13:56:46	0	GAMMA1	0.000 CPS	0.000 API-GR
1	07-09-88	13:56:46	0	GAMMA2	0.000 CPS	0.000 API-GR
2	07-09-88	14:10:46	0	DENSITY	5615.000 CPS	1.196 G/CC
3	07-09-88	14:10:46	0	DENSITY	2250.000 CPS	2.128 G/CC
4	07-09-88	13:56:46	0	DENSITY	0.000 CPS	0.000 DNM-M
5	07-09-88	13:56:46	0	DENSITY	0.000 CPS	0.000 DNM-M
6	07-09-88	13:42:06	0	CALIPER	215.400 CPS	7.600 CM
7	07-09-88	13:42:06	0	CALIPER	1842.500 CPS	17.000 CM
8	07-09-88	13:56:46	0	DENSITY	0.000 CPS	0.000 G/CC
9	07-09-88	13:56:46	0	DENSITY	0.000 CPS	0.000 G/CC
10	07-09-88	13:56:46	0	CALIPER	0.000 CPS	0.000 CM
11	07-09-88	13:56:46	0	CALIPER	0.000 CPS	0.000 CM

#880

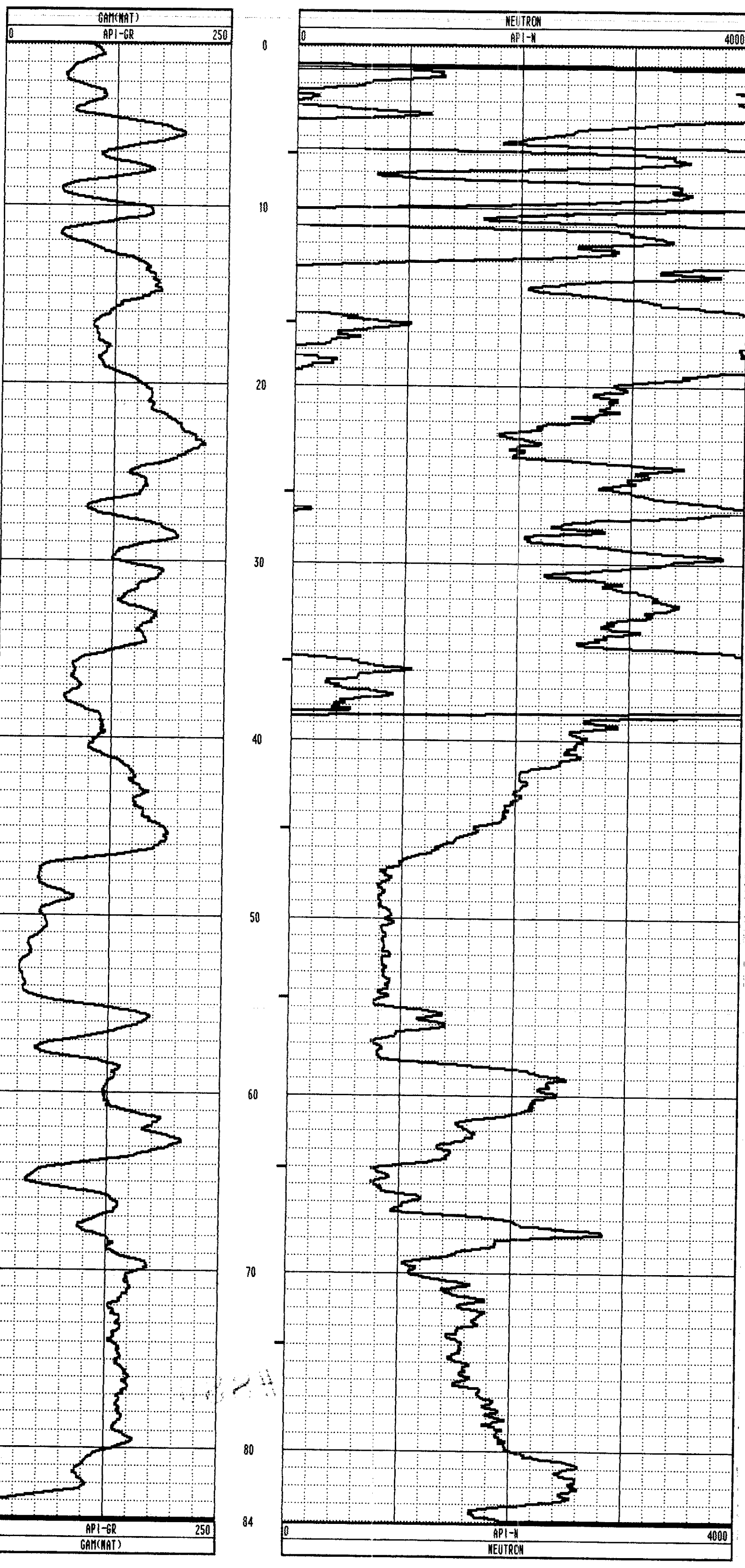
Century

QHR 88017 GAMMA NEUTRON

COMPANY	: QUINTETTE COAL MINE LTD.			OTHER SERVICES:	
WELL	: QHR 88017 GAMMA NEUTRON			DEV.CAL	
LOCATION/FIELD	:			GAM.DEN	
COUNTY	: BRITSH COLUMBIA			NEUT.RES	
STATE	:				
SECTION	:	TOWNSHIP	:	RANGE	:
DATE	: 09/02/88	PERMANENT DATUM	: GL	ELEVATIONS	
DEPTH DRILLER	: 84	ELEV. PERM. DATUM	:	KB	:
LOG BOTTOM	: 84.30	LOG MEASURED FROM	: GL	DF	:
LOG TOP	: 0.74	DRL MEASURED FROM	: GL	GL	:
CASING DRILLER	: 1.5	LOGGING UNIT	: 8401		
CASING TYPE	: STEEL	FIELD OFFICE	: CALGARY		
CASING THICKNESS	: 00	RECORDED BY	: E.SUEDLUND		
BIT SIZE	: 12.7	BOREHOLE FLUID	: WATER	FILE	: ORIGINAL
MAGNETIC DECL.	: 24.500	RM	: 0	TYPE	: 9055A
MATRIX DENSITY	: 2.68	RM TEMPERATURE	: 0	LOG	: 5
FLUID DENSITY	: 1.10	MATRIX DELTA T	: 173	PLOT	: QUIN 2
NEUTRON MATRIX	: SANDSTONE	FLUID DELTA T	: 690	THRESH	: 2500

REMARKS :
VERTICAL HOLE

ALL SERVICES PROVIDED SUBJECT TO CGC STANDARD TERMS AND CONDITIONS



TOOL CALIBRATION TOOL = 9055A SERIAL NUMBER = 46

	CAL-DATE	CAL-TIME	SRCE	SENSOR	RESPONSE	STANDARD
0	07/28/88	15:07:18	0	GAM(NAT)	0.000 CPS	0.000 API-GR
1	07/28/88	15:07:18	0	GAM(NAT)	0.000 CPS	0.000 API-GR
2	07/28/88	15:20:10	0	POROSITY	0.000 CPS	190.000 CPS
3	07/28/88	15:07:18	0	RES	0.000 CPS	0.000 OHM
4	07/28/88	15:07:18	0	RES	0.000 CPS	0.000 OHM
5	07/28/88	15:07:18	0	SP	0.000 CPS	0.000 MV
6	07/28/88	15:07:18	0	SP	0.000 CPS	0.000 MV
7	07/28/88	15:19:56	0	NEUTRON	0.000 CPS	0.000 API-N
8	07/28/88	15:19:56	0	NEUTRON	190.000 CPS	271.000 API-N

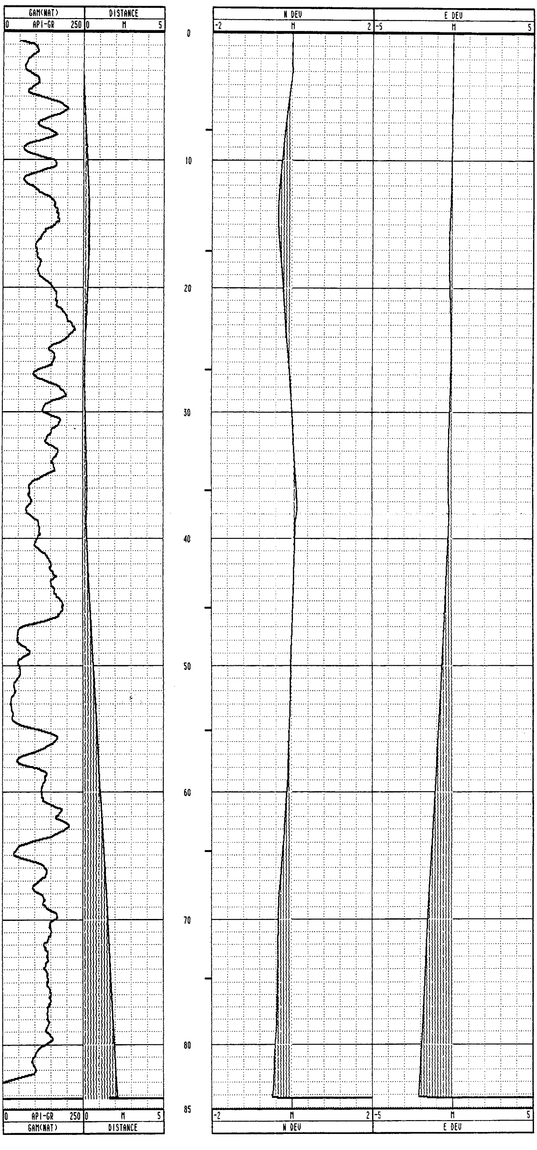
#88U

Century

QHR 88017 DEVIATION

COMPANY	: QUINTETTE COAL MINE LTD.			OTHER SERVICES:	
WELL	: QHR 88017 DEVIATION			DEV.CAL	
LOCATION/FIELD	:			GAM.DEN	
COUNTY	: BRITSH COLUMBIA			NEUT.RES	
STATE	:				
SECTION	:	TOWNSHIP	:	RANGE	:
DATE	: 09/01/88	PERMANENT DATUM	: GL	ELEVATIONS	
DEPTH DRILLER	: 84	ELEV. PERM. DATUM:		KB	:
LOG BOTTOM	: 84.30	LOG MEASURED FROM:	GL	DF	:
LOG TOP	: 0.74	DRL MEASURED FROM:	GL	GL	:
CASING DRILLER	: 1.5	LOGGING UNIT	: 8401		
CASING TYPE	: STEEL	FIELD OFFICE	: CALGARY		
CASING THICKNESS:	00	RECORDED BY	: E.SVEDLUND		
BIT SIZE	: 12.7	BOREHOLE FLUID	: WATER	FILE	: PROCESSED
MAGNETIC DECL.	: 24.500	RM	: 0	TYPE	: 9055A
MATRIX DENSITY	: 2.68	RM TEMPERATURE	: 0	LOG	: 3
FLUID DENSITY	: 1.10	MATRIX DELTA T	: 173	PLOT	: QUIN 6
NEUTRON MATRIX	: SANDSTONE	FLUID DELTA T	: 690	THRESH:	2500
REMARKS	:				
VERTICAL HOLE					

ALL SERVICES PROVIDED SUBJECT TO CGC STANDARD TERMS AND CONDITIONS



+ + + + + + + + + COMPU-LOG II - VERTICAL DEVIATION + + + + + + + + +

CLIENT	: QUINTETTE COAL MINE	HOLE ID.	: QHR 88017 DEV
FIELD OFFICE	: CALGARY	DATE OF LOG	: 09/01/88
DATA FROM	:	PROBE	: 9055A , 46
MAG. DECL.	: 24.500	DEPTH UNITS	: FEET LOG 3

Cable Depth	True Depth	North Dev.	East Dev.	Distance	Azimuth	SANG	SANGB
0.0	0.00	0.00	0.00	0.0	0.0	0.0	0.0
5.0	5.00	-.06	-.01	0.1	191.6	2.1	176.4
10.0	9.99	-.24	-.05	0.2	191.4	2.2	193.6
15.0	14.99	-.34	-.17	0.4	206.4	1.9	357.9
20.0	19.99	-.22	-.18	0.3	218.7	1.6	42.0
25.0	24.99	-.11	-.09	0.1	219.1	1.7	9.9
30.0	29.98	0.01	-.16	0.2	273.3	1.6	316.5
35.0	34.98	0.09	-.24	0.3	291.6	1.2	343.1
40.0	39.98	0.08	-.25	0.3	288.6	2.0	240.4
45.0	44.98	0.04	-.43	0.4	274.8	2.4	255.6
50.0	49.97	-.02	-.65	0.6	267.9	2.6	245.9
55.0	54.97	-.06	-.86	0.9	265.9	2.9	247.1
60.0	59.96	-.12	-1.07	1.1	263.8	3.3	244.3
65.0	64.95	-.23	-1.30	1.3	260.1	3.0	242.3
70.0	69.95	-.33	-1.53	1.6	257.8	2.1	268.9
75.0	74.94	-.35	-1.71	1.7	258.4	2.2	253.6
80.0	79.94	-.41	-1.91	2.0	257.8	2.7	251.5
84.3	84.23	-.49	-2.16	2.2	256.9	0.0	0.0

SCALE : 1:20 (MARKED)

Century

QHR 88018 GAMMA-DENSITY

COMPANY	: QUINTETTE COAL LTD.
WELL	: QHR 88018 GAMMA-DENSITY
LOCATION/FIELD	:
COUNTY	:
STATE	: BRITISH COLUMBIA
SECTION	:

TOWNSHIP :   RANGE :

OTHER SERVICES:
DEN.NEUT
GAM.RES.
CAL.DEV

DATE	: 09/11/88	PERMANENT DATUM	: 0	ELEVATIONS	
DEPTH DRILLER	: 127 M	ELEV. PERM. DATUM	: 0	KB	: 0
LOG BOTTOM	: 125.02	LOG MEASURED FROM	: 0	DF	: 0
LOG TOP	: -1.02	DRL MEASURED FROM	: 0	GL	: 0
CASING DRILLER	: 0	LOGGING UNIT	: 8401		
CASING TYPE	: PVC	FIELD OFFICE	: CALGARY		
CASING THICKNESS	: 0	RECORDED BY	: E.SVEDLUND		
BIT SIZE	: 15.6	BOREHOLE FLUID	: WATER	FILE	: ORIGINAL
MAGNETIC DECL.	: 24.500	RM	: 0	TYPE	: 9030AA
MATRIX DENSITY	: 2.68	RM TEMPERATURE	: 0	LOG	: 0
FLUID DENSITY	: 1.0	MATRIX DELTA T	: 173	PLOT	: QUIN 5
NEUTRON MATRIX	: SANDSTONE	FLUID DELTA T	: 690	THRESH	: 2500

REMARKS :
VERTICAL HOLE
LOGGED OPEN HOLE

ALL SERVICES PROVIDED SUBJECT TO CGC STANDARD TERMS AND CONDITIONS

TOOL CALIBRATION   TOOL = 9030AA   SERIAL NUMBER = 450

	CAL-DATE	CAL-TIME	SRCE	SENSOR	RESPONSE	STANDARD
0	09/06/88	22:48:27	0	GAM(NAT)	0.000 CPS	0.000 API-GR
1	09/06/88	22:48:27	0	GAM(NAT)	0.000 CPS	0.000 API-GR
2	09/06/88	22:55:50	0	DENSITY	5615.000 CPS	1.106 G/CC
3	09/06/88	22:55:50	0	DENSITY	2230.000 CPS	2.120 G/CC
4	09/06/88	22:48:27	0	RES(MG)	0.000 CPS	0.000 OHM-M
5	09/06/88	22:48:27	0	RES(MG)	0.000 CPS	0.000 OHM-M
6	09/06/88	22:59:05	0	CALIPER	213.400 CPS	7.600 CM
7	09/06/88	22:59:05	0	CALIPER	1842.500 CPS	17.800 CM
8	09/06/88	22:48:27	0	DENSITYH	0.000 CPS	0.000 G/CC
9	09/06/88	22:48:27	0	DENSITYH	0.000 CPS	0.000 G/CC
10	09/06/88	22:48:27	0	CALIPERL	0.000 CPS	0.000 CM
11	09/06/88	22:48:27	0	CALIPERL	0.000 CPS	0.000 CM

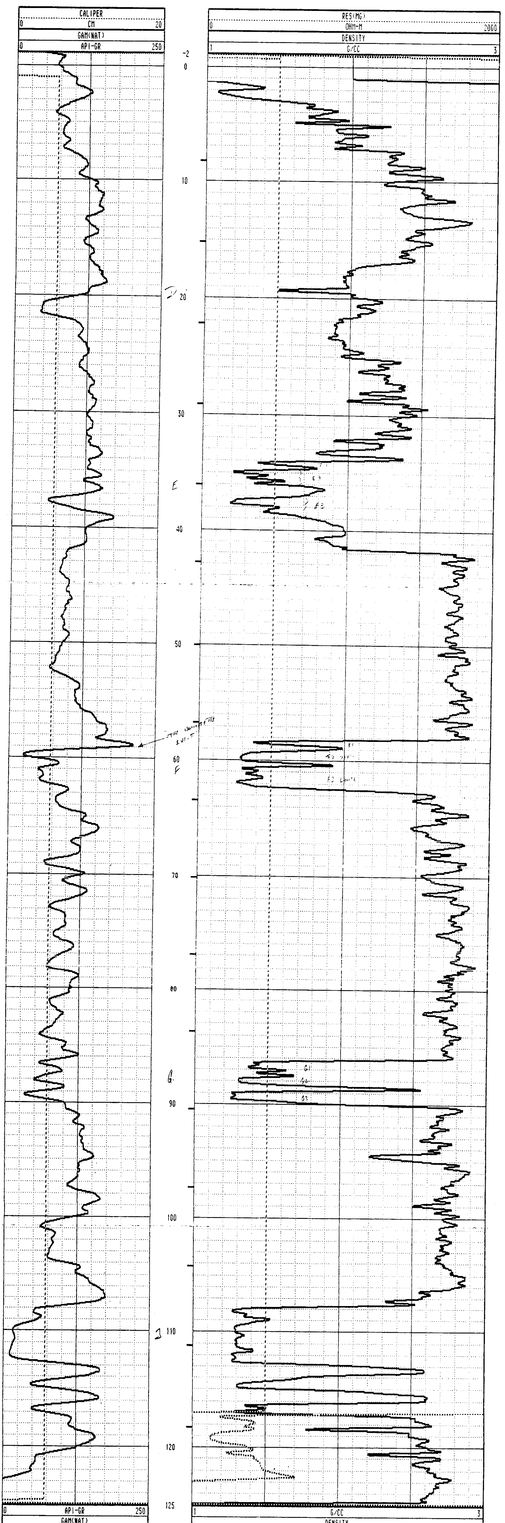
#880

Century

QHR 88018 GAMMA-DENSITY

COMPANY	: QUINTETTE COAL LTD.			OTHER SERVICES:	
WELL	: QHR 88018 GAMMA-DENSITY			DEN.NEUT	
LOCATION/FIELD	:			GAM.RES.	
COUNTY	:			CAL.DEV	
STATE	: BRITISH COLUMBIA				
SECTION	:	TOWNSHIP	:	RANGE	:
DATE	: 09/11/88	PERMANENT DATUM	: 0	ELEVATIONS	
DEPTH DRILLER	: 127 M	ELEV. PERM. DATUM:	0	KB	: 0
LOG BOTTOM	: 125.02	LOG MEASURED FROM:	0	DF	: 0
LOG TOP	: -1.02	DRL MEASURED FROM:	0	GL	: 0
CASING DRILLER	: 0	LOGGING UNIT	: 8401		
CASING TYPE	: PVC	FIELD OFFICE	: CALGARY		
CASING THICKNESS:	0	RECORDED BY	: E.SWEDLUND		
BIT SIZE	: 15.6	BOREHOLE FLUID	: WATER	FILE	: ORIGINAL
MAGNETIC DECL.	: 24.500	PH	: 0	TYPE	: 9030AA
MATRIX DENSITY	: 2.68	PH TEMPERATURE	: 0	LOG	: 8
FLUID DENSITY	: 1.0	MATRIX DELTA T	: 173	PLOT	: 0UIN 3
NEUTRON MATRIX	: SANDSTONE	FLUID DELTA T	: 690	THRESH:	2500
REMARKS	:				
VERTICAL HOLE					
LOGGED OPEN HOLE					

ALL SERVICES PROVIDED SUBJECT TO CGC STANDARD TERMS AND CONDITIONS



TOOL CALIBRATION TOOL = 9030AA SERIAL NUMBER = 450

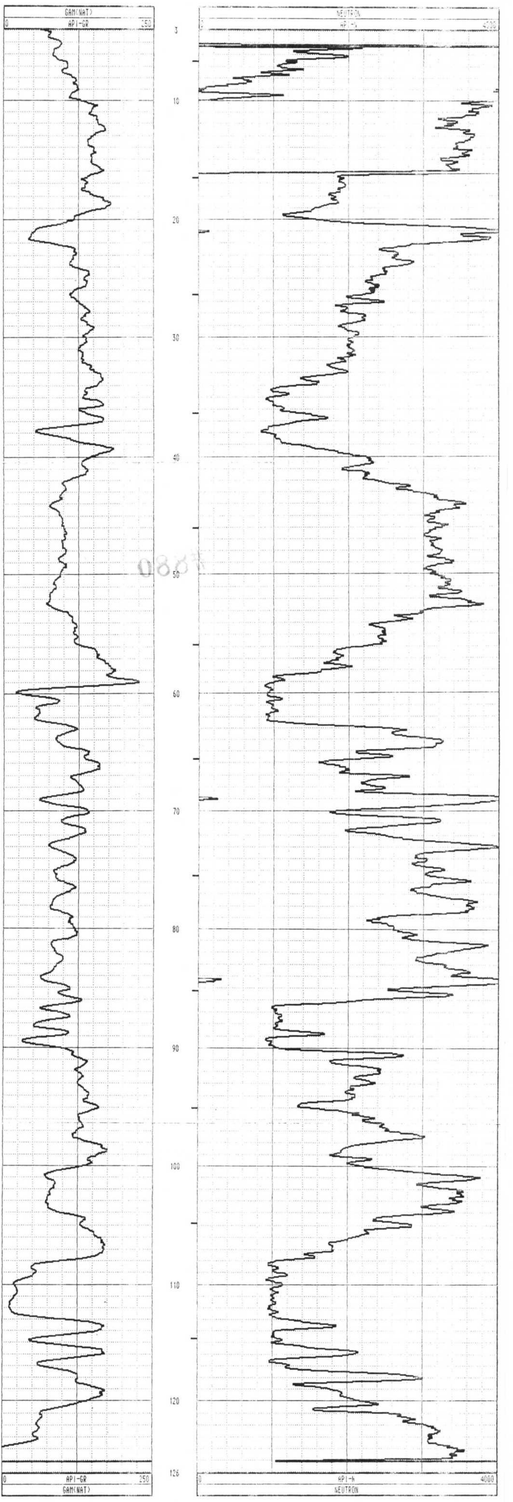
	CAL-DATE	CAL-TIME	SRCE	SENSOR	RESPONSE	STANDARD
0	09/06/88	22:48:27	0	GAMMA(T)	0.000 CPS	0.000 API-GR
1	09/06/88	22:48:27	0	GAMMA(T)	0.000 CPS	0.000 API-GR
2	09/06/88	22:55:50	0	DENSITY	5615.000 CPS	1.106 G/CC
3	09/06/88	22:55:50	0	DENSITY	2230.000 CPS	2.120 G/CC
4	09/06/88	22:48:27	0	RESIS(I)	0.000 CPS	0.000 OHM-M
5	09/06/88	22:48:27	0	RESIS(I)	0.000 CPS	0.000 OHM-M
6	09/06/88	22:59:05	0	CALIPER	213.400 CPS	7.600 CM
7	09/06/88	22:59:05	0	CALIPER	1842.500 CPS	17.800 CM
8	09/06/88	22:48:27	0	DENSITYH	0.000 CPS	0.000 G/CC
9	09/06/88	22:48:27	0	DENSITYH	0.000 CPS	0.000 G/CC
10	09/06/88	22:48:27	0	CALIPERL	0.000 CPS	0.000 CM
11	09/06/88	22:48:27	0	CALIPERL	0.000 CPS	0.000 CM

Century #880

GHR 88018 GAMMA-NEUTRON

COMPANY	: QUINTETTE COAL LTD.	OTHER SERVICES:	
WELL	: GHR 88018 GAMMA-NEUTRON	DEN.NEUT	
LOCATION/FIELD	:	GAM.DEN	
COUNTY	:	CAL.DEN	
STATE	: BRITISH COLUMBIA		
SECTION	: TOWNSHIP :	RANGE :	
DATE	: 88/10/88	PERMANENT DATUM : 0	ELEVATIONS
DEPTH DRILLER	: 127 M	ELEV. PERM. DATUM: 0	KB : 0
LOG BOTTOM	: 125.16	LOG MEASURED FROM: 0	DF : 0
LOG TOP	: 5.90	DRL MEASURED FROM: 0	GL : 0
CASING DRILLER	: 0	LOGGING UNIT	: 8401
CASING TYPE	: STEEL	FIELD OFFICE	: CALGARY
CASING THICKNESS	: 0	RECORDED BY	: E.SMERCHANSKI
BIT SIZE	: 15.5	LITHOLOGY TYPE	: UNIT : F.P. : NORMAL
MAGNETIC DECL.	: 24.000	RM	: 0 : TIME : 0 MIN
MATRIX DENSITY	: 2.68	RM TEMPERATURE	: 0 : LOG : DOWN
FLUID DENSITY	: 1.0	NEUTRON DELTA T	: 125 : PLOT : 2 INCH 2
NEUTRON MATRIX	: SANDSTONE	FLUID DELTA T	: 656 : THRESH : 0
REMARKS	:		
VERTICAL HOLE			
LOGGED OPEN HOLE			

ALL SERVICES PROVIDED SUBJECT TO OUR STANDARD TERMS AND CONDITIONS



TOOL CALIBRATION TOOL = 9055H SERIAL NUMBER = 48

	CAL-DATE	CAL-TIME	SPCE	SENSOR	RESPONSE	STANDARD
0	07/28/88	15:07:18	0	GAMMA(T)	0.000 CPS	0.000 API-GR
1	07/28/88	15:07:18	0	GAMMA(T)	0.000 CPS	0.000 API-GR
2	07/28/88	15:20:18	0	POROSITY	0.000 CPS	150.000 CPS
3	07/28/88	15:07:18	0	RES	0.000 CPS	0.000 OHM
4	07/28/88	15:07:18	0	RES	0.000 CPS	0.000 OHM
5	07/28/88	15:07:18	0	SP	0.000 CPS	0.000 MV
6	07/28/88	15:07:18	0	SP	0.000 CPS	0.000 MV
7	07/28/88	15:19:55	0	NEUTRON	0.000 CPS	0.000 API-N
8	07/28/88	15:19:55	0	NEUTRON	150.000 CPS	271.000 API-N