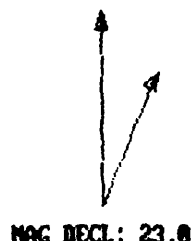
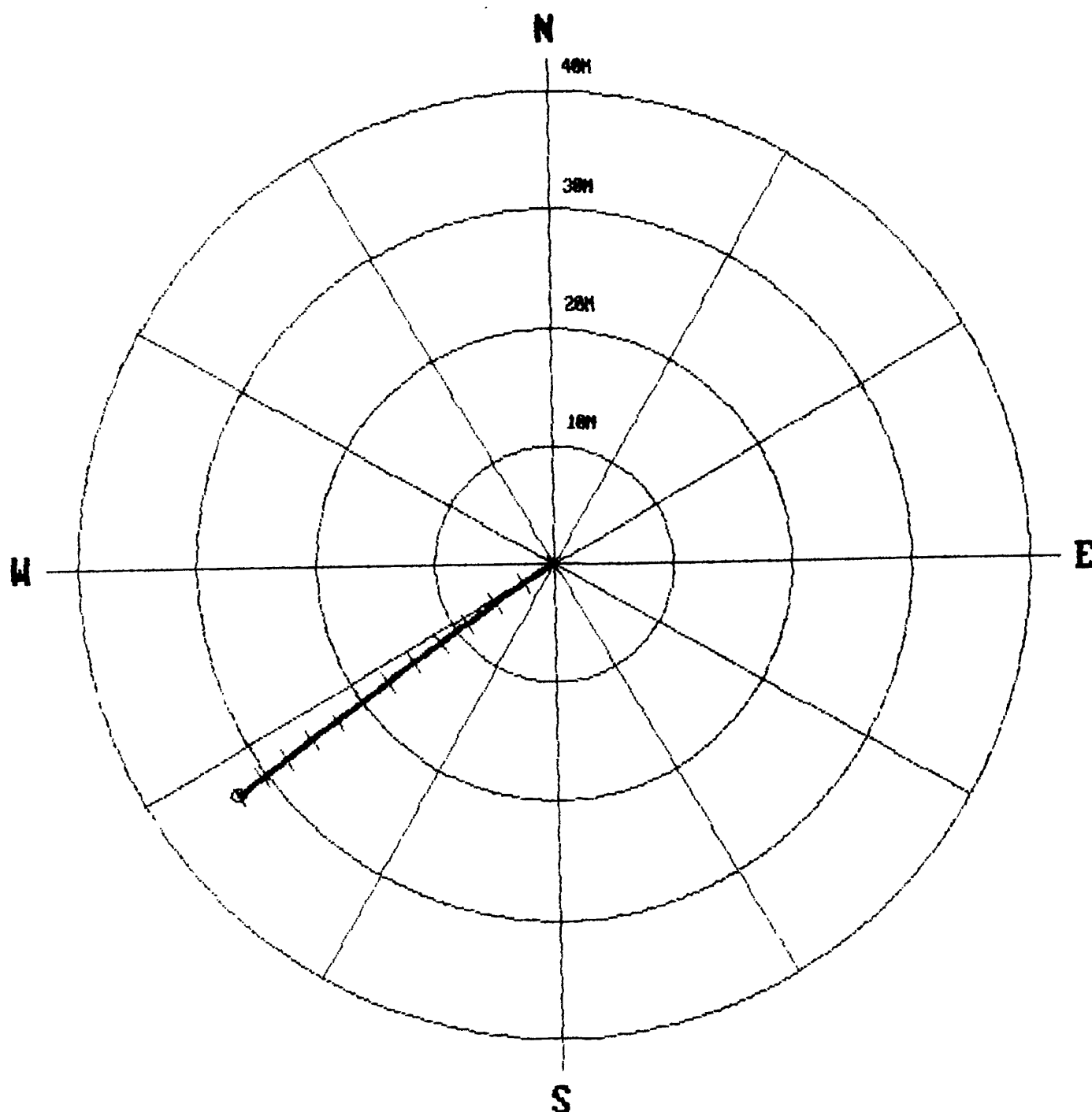


PLAN VIEW COMPU-LOG DEVIATION

CLIENT: PINE VALLEY COAL LTD.
 LOCATION: WILLOW CREEK PROJECT
 HOLE ID: WRH-96-001
 DATE OF LOG: 03/02/96
 PROBE: 9055A 58



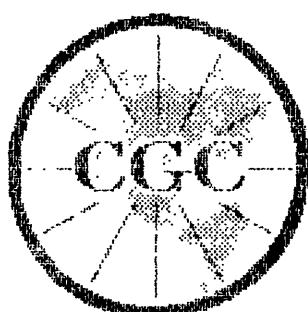
SCALE: 5 M/CM
 TRUE DEPTH: 69.92 M
 AZIMUTH: 234.5
 DISTANCE: 32.9 M
 + = 5 M INCR
 O = BOTTOM OF HOLE



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

CLIENT : PINE VALLEY COAL LT HOLE ID. : WRH-96-001
 FIELD OFFICE : CALGARY, A.B DATE OF LOG : 03/02/96
 DATA FROM : PROBE : 9055A 58
 MAG. DECL. : 23.000 DEPTH UNITS : METERS LOG 4

CABLE DEPTH	TRUE DEPTH	NORTH DEV.	EAST DEV.	DISTANCE	AZIMUTH	SANG	SANGB
10.0	9.97	-0.06	-0.08	0.1	233.7	31.5	237.9
12.0	11.68	-0.60	-0.97	1.1	238.4	31.0	237.8
14.0	13.40	-1.15	-1.84	2.2	238.0	30.8	236.8
16.0	15.12	-1.70	-2.69	3.2	237.8	30.7	234.7
18.0	16.84	-2.27	-3.53	4.2	237.2	30.4	236.1
20.0	18.56	-2.84	-4.37	5.2	237.0	30.4	238.1
22.0	20.29	-3.41	-5.20	6.2	236.8	30.3	235.7
24.0	22.02	-4.00	-6.00	7.2	236.3	30.0	244.2
26.0	23.76	-4.56	-6.81	8.2	236.2	29.6	234.2
28.0	25.50	-5.13	-7.61	9.2	236.0	29.4	243.6
30.0	27.24	-5.72	-8.40	10.2	235.8	29.6	232.1
32.0	28.99	-6.29	-9.19	11.1	235.6	29.1	233.9
34.0	30.74	-6.84	-9.99	12.1	235.6	28.6	232.4
36.0	32.49	-7.38	-10.79	13.1	235.6	29.0	230.4
38.0	34.24	-7.94	-11.57	14.0	235.6	28.9	234.7
40.0	35.99	-8.53	-12.34	15.0	235.4	28.7	229.3
42.0	37.75	-9.05	-13.13	15.9	235.4	27.3	249.6
44.0	39.51	-9.60	-13.90	16.9	235.4	28.4	233.4
46.0	41.27	-10.16	-14.67	17.8	235.3	28.4	229.5
48.0	43.02	-10.74	-15.43	18.8	235.2	28.4	234.3
50.0	44.78	-11.31	-16.18	19.7	235.0	28.2	232.1
52.0	46.54	-11.87	-16.95	20.7	235.0	28.3	233.9
54.0	48.31	-12.42	-17.71	21.6	235.0	28.2	228.5
56.0	50.07	-12.97	-18.47	22.6	234.9	28.2	225.6
58.0	51.84	-13.53	-19.23	23.5	234.9	28.1	235.7
60.0	53.60	-14.08	-19.99	24.5	234.8	27.9	232.5
62.0	55.37	-14.65	-20.73	25.4	234.7	28.0	236.4
64.0	57.13	-15.20	-21.49	26.3	234.7	27.8	235.2
66.0	58.90	-15.76	-22.24	27.3	234.7	27.8	232.9
68.0	60.67	-16.30	-22.98	28.2	234.6	27.5	233.3
70.0	62.45	-16.84	-23.73	29.1	234.6	27.3	235.0
72.0	64.22	-17.39	-24.46	30.0	234.6	27.2	233.7
74.0	66.00	-17.94	-25.20	30.9	234.6	27.1	233.2
76.0	67.78	-18.49	-25.92	31.8	234.5	27.3	231.6
78.0	69.56	-19.03	-26.65	32.7	234.5	27.1	232.4
78.4	69.92	-19.14	-26.80	32.9	234.5	26.9	235.5



Century GEOPHYSICAL CORP.

GAMMA-NEUTRON

COMPANY : PINE VALLEY COAL LTD.
 WELL : WRH-96-001
 LOCATION/FIELD : WILLOW CREEK PROJECT
 COUNTY : PINE PASS
 STATE : BRITISH COLUMBIA
 SECTION : TOWNSHIP : RANGE :

OTHER SERVICES:
 9055
 9030

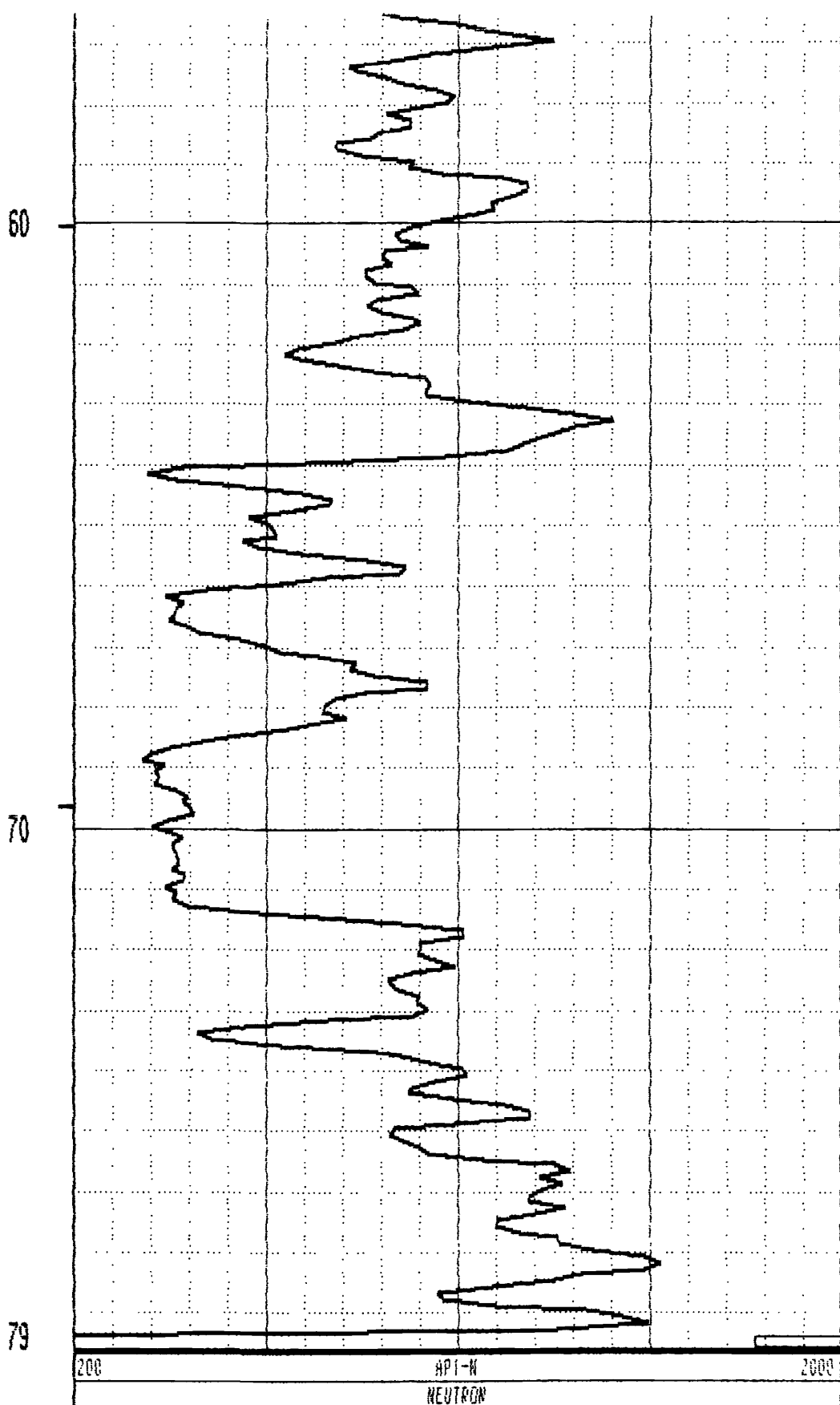
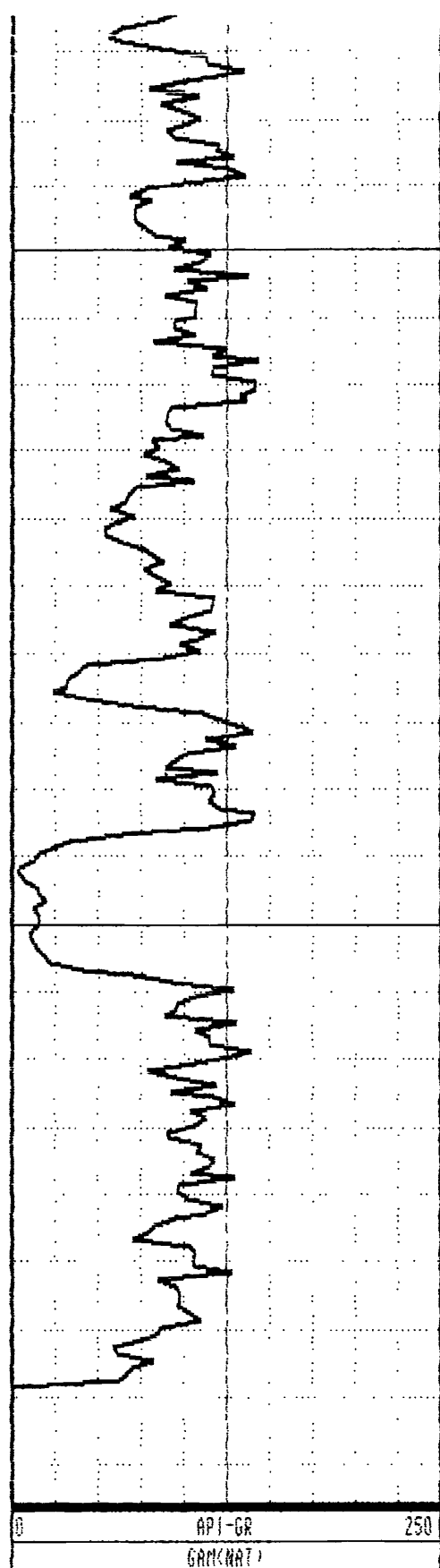
DATE : 03/02/96 PERMANENT DATUM : GROUND ELEVATIONS
 DEPTH DRILLER : 80 ELEV. PERM. DATUM: GROUND KB :
 LOG BOTTOM : 78.70 LOG MEASURED FROM: GL DF :
 LOG TOP : 8.30 DRL MEASURED FROM: GL GL :

CASING DRILLER : 3 LOGGING UNIT : 8909
 CASING TYPE : STEEL FIELD OFFICE : CALGARY, A.B
 CASING THICKNESS: 0.65 RECORDED BY : B. BOONE

BIT SIZE : 14 BOREHOLE FLUID : H2O/AIR FILE : ORIGINAL
 MAGNETIC DECL. : 337 RM : TYPE : 9055A
 MATRIX DENSITY : 2.65 RM TEMPERATURE : LOG : 1
 FLUID DENSITY : 1.1 MATRIX DELTA T : PLOT : SMOKY ?
 NEUTRON MATRIX : SANDSTONE FLUID DELTA T : THRESH: 100000

REMARKS :
 OPEN HOLE
 HOLE DEVIATED 60 DEG.

ALL SERVICES PROVIDED SUBJECT TO STANDARD TERMS AND CONDITIONS



GAMMA-RES-DENSITY

COMPANY : PINE VALLEY COAL LTD.
 WELL : WRH-96-001
 LOCATION/FIELD : WILLOW CREEK PROJECT
 COUNTY : PINE PASS
 STATE : BRITISH COLUMBIA

OTHER SERVICES:
 9055
 9030

SECTION : TOWNSHIP : RANGE :

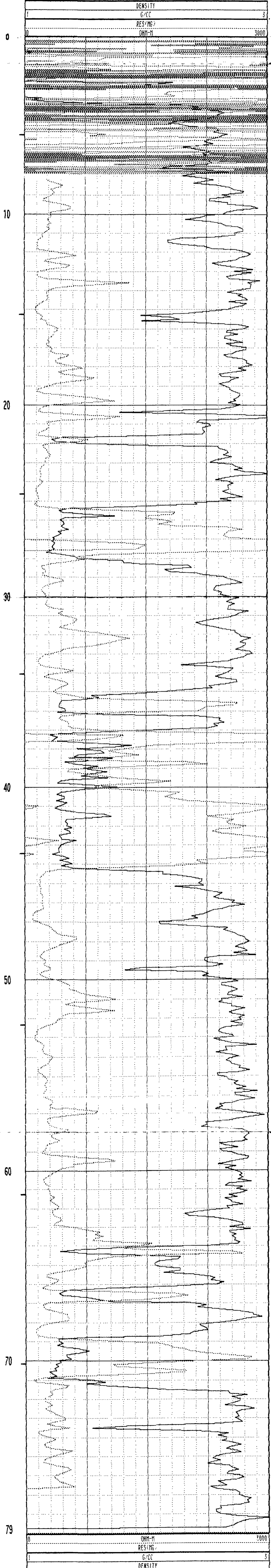
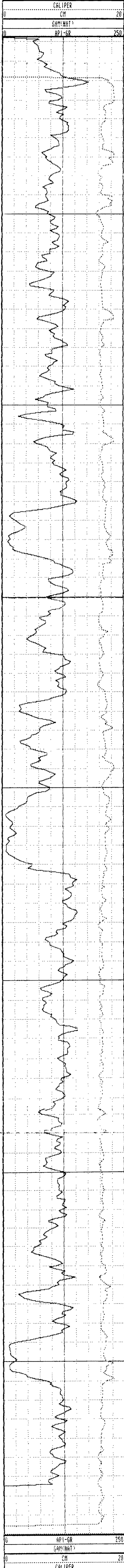
DATE : 03/02/96 PERMANENT DATUM : GROUND ELEVATIONS
 DEPTH DRILLER : 80 ELEV. PERM. DATUM: GROUND KB :
 LOG BOTTOM : 79.10 LOG MEASURED FROM: GL DF :
 LOG TOP : 0.80 DRL MEASURED FROM: GL GL :

CASING DRILLER : 3 LOGGING UNIT : 8909
 CASING TYPE : STEEL FIELD OFFICE : CALGARY, A.B
 CASING THICKNESS: 0.65 RECORDED BY : B. BOONE

BIT SIZE : 14 BOREHOLE FLUID : H2O/AIR FILE : ORIGINAL
 MAGNETIC DECL. : 337 RM : TYPE : 9030AA
 MATRIX DENSITY : 2.65 RM TEMPERATURE : LOG : 3
 FLUID DENSITY : 1.1 MATRIX DELTA T : PLOT : SMOKY 3
 NEUTRON MATRIX : SANDSTONE FLUID DELTA T : THRESH: 100000

REMARKS :
 OPEN HOLE
 HOLE DEVIATED 60 DEG.

ALL SERVICES PROVIDED SUBJECT TO STANDARD TERMS AND CONDITIONS



CLIENT : GLOBALTEX
 FIELD OFFICE : CALGARY
 DATA FROM :
 MAG. DECL. : 24.500

HOLE ID. : WRH-94002
 DATE OF LOG : 03/11/94
 PROBE : 9055A , 255
 DEPTH UNITS : METERS LOG 4

CABLE DEPTH	TRUE DEPTH	NORTH DEV.	EAST DEV.	DISTANCE	AZIMUTH	SANG	SANGB
2.7	2.70	0.00	0.00	0.0	0.0	0.0	0.0
6.6	6.20	-1.09	-1.44	1.8	233.0	27.5	234.1
11.6	10.62	-2.53	-3.28	4.1	232.4	27.8	229.5
16.6	15.04	-3.99	-5.08	6.5	231.9	28.2	234.8
21.6	19.44	-5.50	-6.90	8.8	231.5	28.3	231.4
26.6	23.84	-7.01	-8.74	11.2	231.3	28.7	231.5
31.6	28.22	-8.59	-10.57	13.6	230.9	29.2	229.2
36.6	32.56	-10.27	-12.35	16.1	230.2	29.6	235.1
41.6	36.87	-11.99	-14.21	18.6	229.9	30.5	224.6
46.6	41.17	-13.72	-16.09	21.1	229.5	30.9	229.6
51.6	45.42	-15.50	-18.00	23.8	229.3	32.1	226.5
56.6	49.65	-17.37	-19.91	26.4	228.9	33.1	221.3
61.6	53.85	-19.24	-21.86	29.1	228.6	33.5	223.7
66.6	58.02	-21.17	-23.81	31.9	228.4	33.8	224.0
71.6	62.16	-23.14	-25.79	34.6	228.1	34.4	217.3
76.6	66.27	-25.15	-27.79	37.5	227.9	35.0	227.5
81.6	70.36	-27.18	-29.83	40.4	227.7	35.5	225.5
82.9	71.42	-27.71	-30.36	41.1	227.6	35.5	223.0

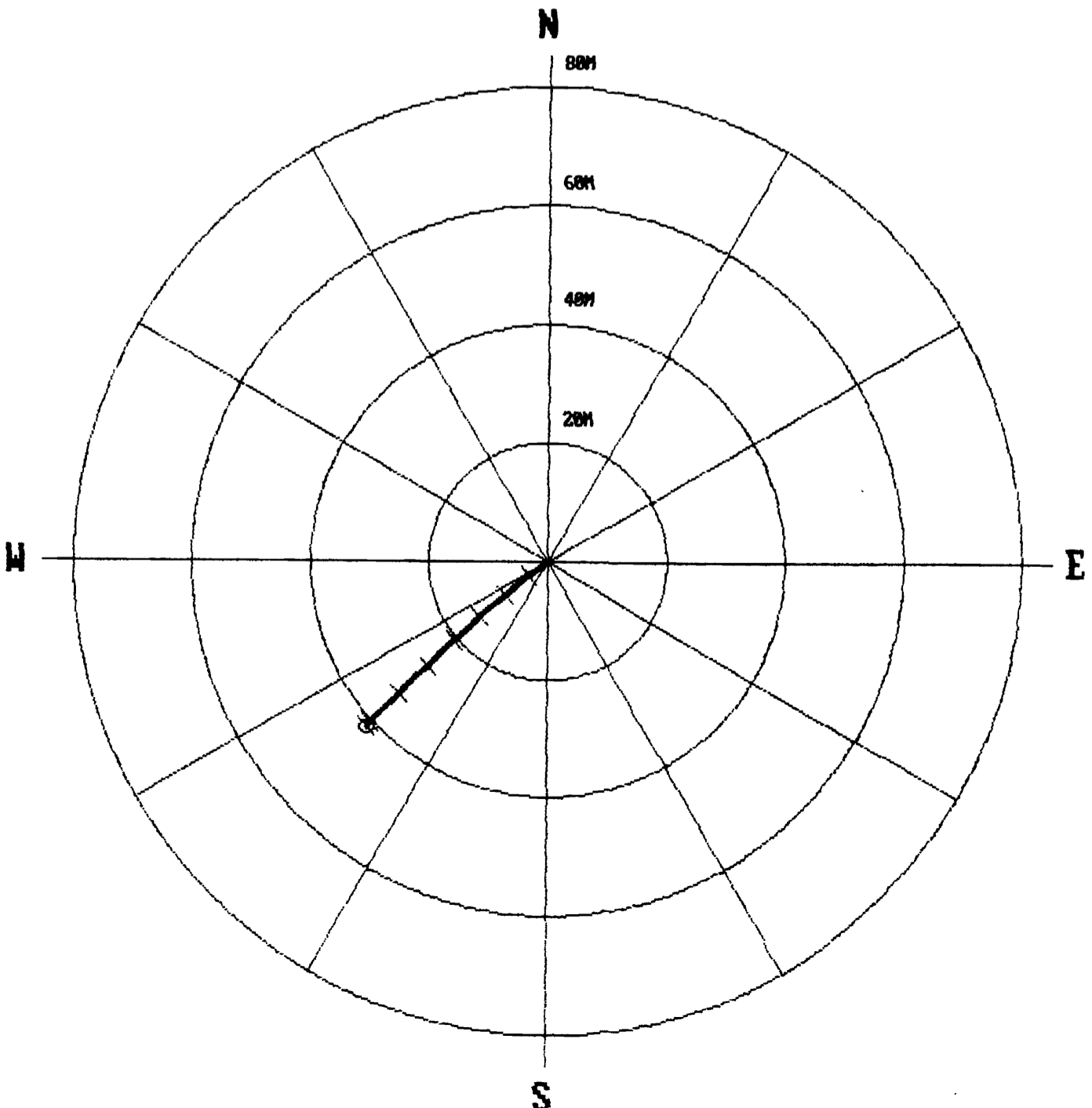
57m

**PLAN VIEW
 COMPU-LOG DEVIATION**

CLIENT: GLOBALTEX
 LOCATION: WILLOW CREEK
 HOLE ID: WRH-94002
 DATE OF LOG: 03/11/94
 PROBE: 9055A 255



SCALE: 10 M/CM
 TRUE DEPTH: 71.42 M
 AZIMUTH: 227.6
 DISTANCE: 41.1 M
 + = 10 M INCR
 O = BOTTOM OF HOLE

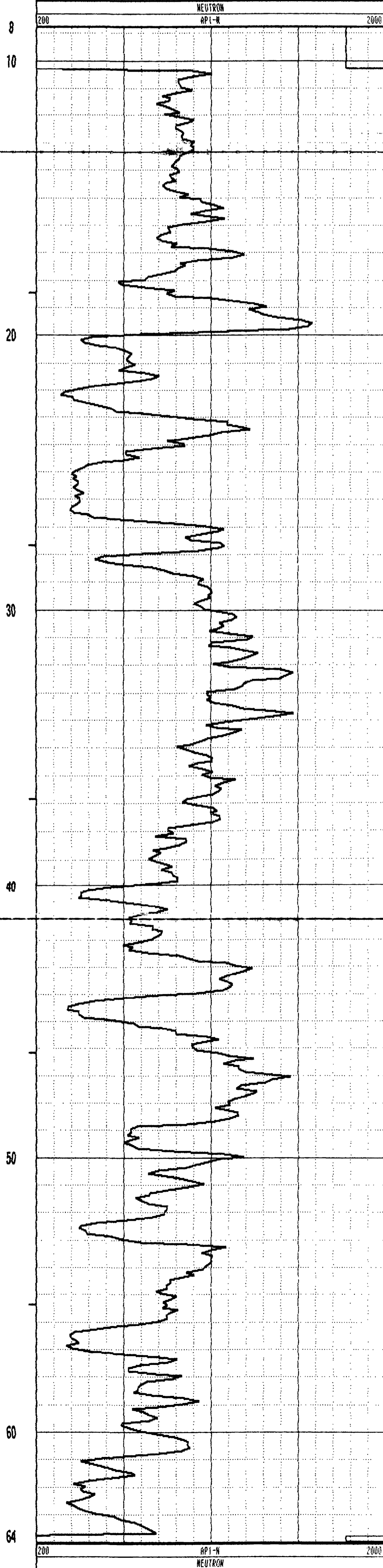
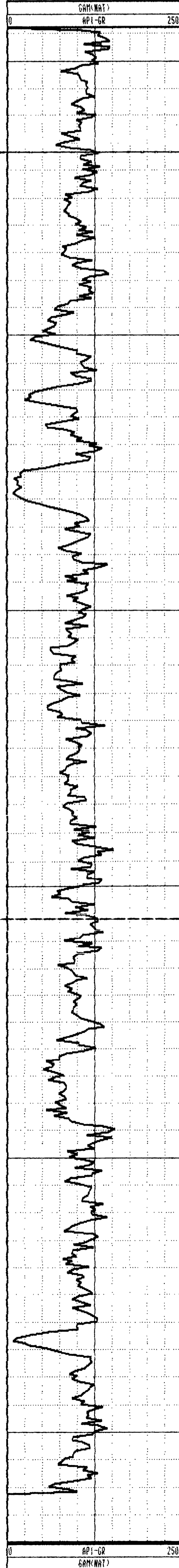




Century
GEOPHYSICAL CORP.

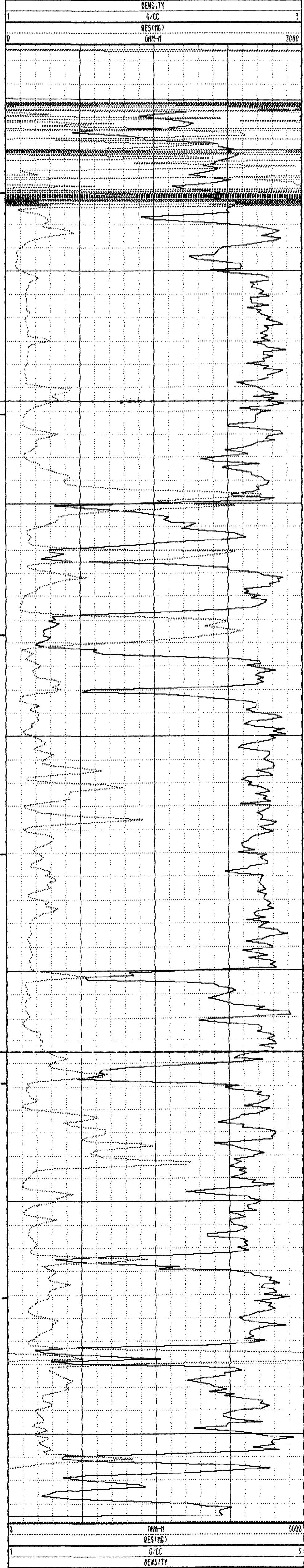
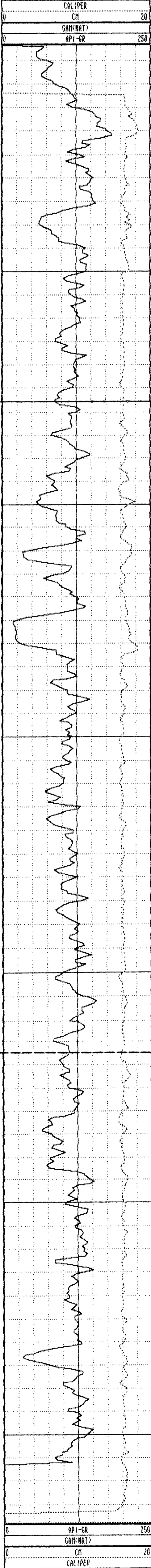
GAMMA-NEUTRON

COMPANY	: PINE VALLEY COAL LTD.	OTHER SERVICES:
WELL	: WRH-96-002	9055
LOCATION/FIELD	: WILLOW CREEK PROJECT	9030
COUNTY	: PINE PASS	
STATE	: BRITISH COLUMBIA	
SECTION	: TOWNSHIP	RANGE :
DATE	: 03/02/96	PERMANENT DATUM : GROUND ELEVATIONS
DEPTH DRILLER	: 65	ELEV. PERM. DATUM: GROUND KB :
LOG BOTTOM	: 64.10	LOG MEASURED FROM: GL DF :
LOG TOP	: 8.90	DRL MEASURED FROM: GL GL :
CASING DRILLER	: 3	LOGGING UNIT : 8909
CASING TYPE	: STEEL	FIELD OFFICE : CALGARY, A.B
CASING THICKNESS	: 0.65	RECORDED BY : B. BOONE
BIT SIZE	: 14	BOREHOLE FLUID : H2O/AIR FILE : ORIGINAL
MAGNETIC DECL.	: 23	RM :
MATRIX DENSITY	: 2.65	RM TEMPERATURE :
FLUID DENSITY	: 1.1	MATRIX DELTA T :
NEUTRON MATRIX	: SANDSTONE FLUID DELTA T :	THRESH: 6000
REMARKS	:	
OPEN HOLE		
HOLE DEVIATED 60 DEG.		
ALL SERVICES PROVIDED SUBJECT TO STANDARD TERMS AND CONDITIONS		



GAMMA-RES-DENSITY

COMPANY	: PINE VALLEY COAL LTD.	OTHER SERVICES:	
WELL	: WRH-96-002	9055	
LOCATION/FIELD	: WILLOW CREEK PROJECT	9030	
COUNTY	: PINE PASS		
STATE	: BRITISH COLUMBIA		
SECTION	: TOWNSHIP		RANGE :
DATE	: 03/02/96	PERMANENT DATUM	: GROUND ELEVATIONS
DEPTH DRILLER	: 65	ELEV. PERM. DATUM	: GROUND KB :
LOG BOTTOM	: 63.90	LOG MEASURED FROM	: GL DF :
LOG TOP	: 0.40	DRL MEASURED FROM	: GL GL :
CASING DRILLER	: 3	LOGGING UNIT	: 8909
CASING TYPE	: STEEL	FIELD OFFICE	: CALGARY, A.B
CASING THICKNESS	: 0.65	RECORDED BY	: B. BOONE
BIT SIZE	: 14	BOREHOLE FLUID	: H2O/AIR FILE : ORIGINAL
MAGNETIC DECL.	: 23	RM	: TYPE : 903000
MATRIX DENSITY	: 2.65	RM TEMPERATURE	: LOG : 6
FLUID DENSITY	: 1.1	MATRIX DELTA T	: PLOT : SMOKY 3
NEUTRON MATRIX	: SANDSTONE	FLUID DELTA T	: THRESH: 6000
REMARKS	:		
OPEN HOLE			
HOLE DEVIATED 60 DEG.			
ALL SERVICES PROVIDED SUBJECT TO STANDARD TERMS AND CONDITIONS			



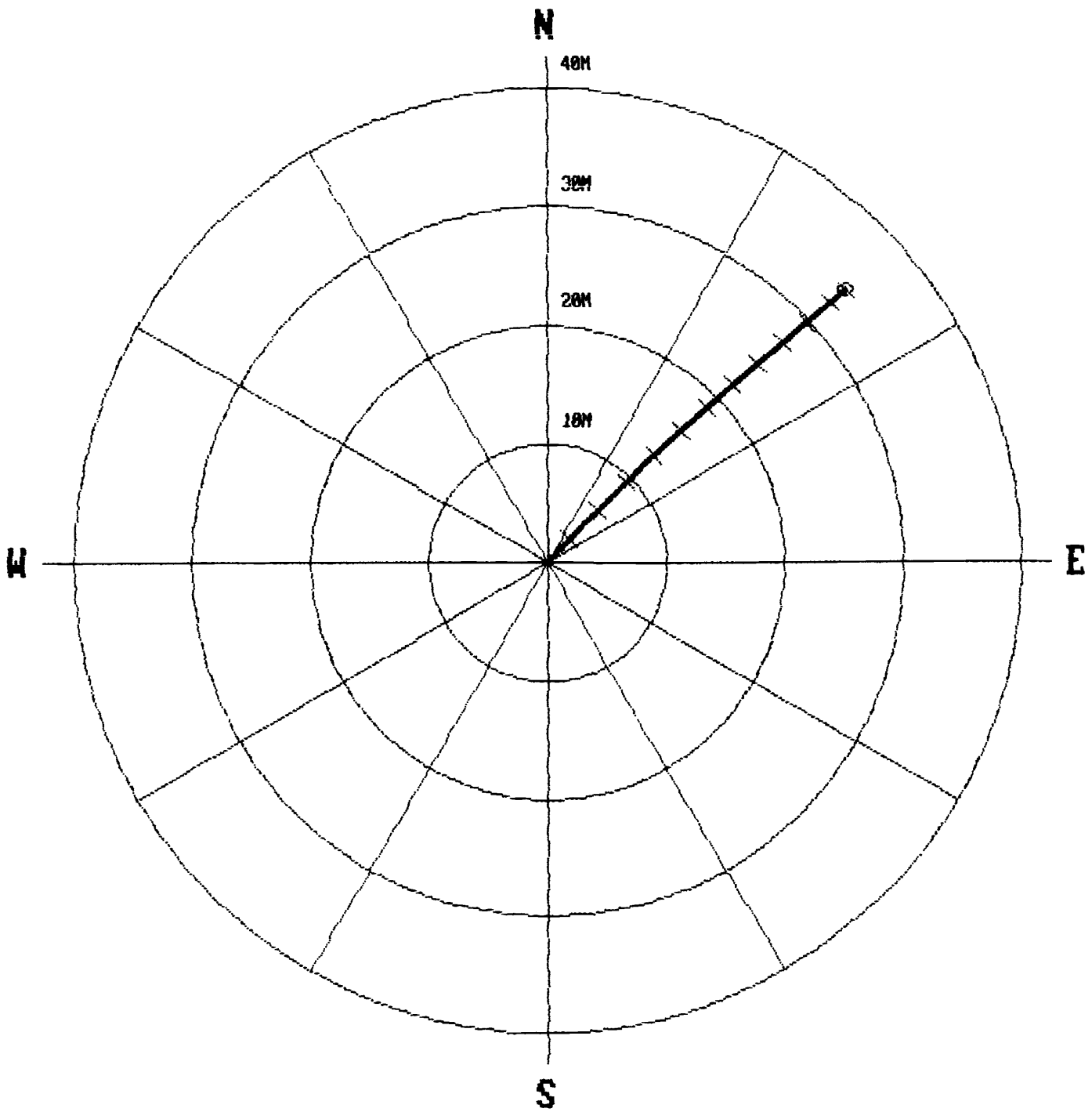
PLAN VIEW

COMPU-LOG DEVIATION

CLIENT: PINE VALLEY COAL LTD.
 LOCATION: WILLOW CREEK PROJECT
 HOLE ID: WRH-96-003
 DATE OF LOG: 03/07/96
 PROBE: 9055A 58



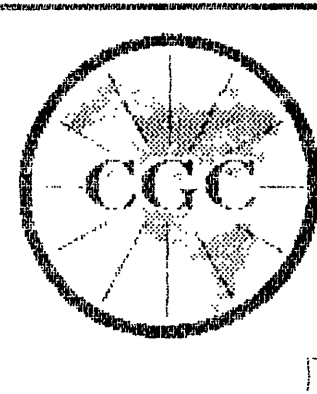
SCALE: 5 M/CM
 TRUE DEPTH: 126.66 M
 AZIMUTH: 47.9
 DISTANCE: 34.1 M
 + = 10 M INCR
 O = BOTTOM OF HOLE



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

CLIENT : PINE VALLEY COAL LT HOLE ID. : WRH-96-003
 FIELD OFFICE : CALGARY, A.B DATE OF LOG : 03/07/96
 DATA FROM : PROBE : 9055A 58
 MAG. DECL. : 23.000 DEPTH UNITS : METERS LOG 0

CABLE DEPTH	TRUE DEPTH	NORTH DEV.	EAST DEV.	DISTANCE	AZIMUTH	SANG	SANGB
12.6	12.59	0.02	0.02	0.0	44.1	19.5	44.1
16.0	15.80	0.84	0.82	1.2	44.3	19.5	44.3
21.0	20.52	2.01	1.98	2.8	44.5	18.8	45.2
26.0	25.24	3.20	3.10	4.5	44.1	19.6	44.6
31.0	29.96	4.38	4.25	6.1	44.1	19.1	44.8
36.0	34.69	5.53	5.39	7.7	44.3	18.8	45.3
41.0	39.43	6.66	6.53	9.3	44.5	18.8	45.6
46.0	44.17	7.76	7.67	10.9	44.7	18.1	46.3
51.0	48.92	8.83	8.79	12.5	44.9	17.9	46.4
56.0	53.69	9.87	9.88	14.0	45.0	17.4	48.2
61.0	58.47	10.84	10.97	15.4	45.4	16.6	48.7
66.0	63.27	11.78	12.04	16.8	45.6	16.3	48.7
71.0	68.07	12.70	13.08	18.2	45.8	16.1	48.6
76.0	72.87	13.61	14.12	19.6	46.1	15.8	48.9
81.0	77.68	14.50	15.16	21.0	46.3	15.7	49.0
86.0	82.49	15.38	16.19	22.3	46.5	15.7	49.6
91.0	87.31	16.26	17.22	23.7	46.6	15.4	49.7
96.0	92.13	17.13	18.24	25.0	46.8	15.5	49.7
101.0	96.95	17.98	19.26	26.3	47.0	15.2	49.9
106.0	101.77	18.81	20.27	27.7	47.1	14.9	50.1
111.0	106.61	19.62	21.25	28.9	47.3	14.7	50.5
116.0	111.45	20.42	22.23	30.2	47.4	14.2	51.5
121.0	116.29	21.21	23.19	31.4	47.6	14.9	49.2
126.0	121.13	21.98	24.17	32.7	47.7	14.2	51.6
131.0	125.98	22.74	25.12	33.9	47.8	14.3	51.2
131.7	126.66	22.85	25.26	34.1	47.9	14.3	51.2



Century GEOPHYSICAL CORP.

GAMMA-NEUTRON

COMPANY : PINE VALLEY COAL LTD.
 WELL : WRH-96-003
 LOCATION/FIELD : WILLOW CREEK PROJECT
 COUNTY : PINE PASS
 STATE : BRITISH COLUMBIA

OTHER SERVICES:
 9055
 9030

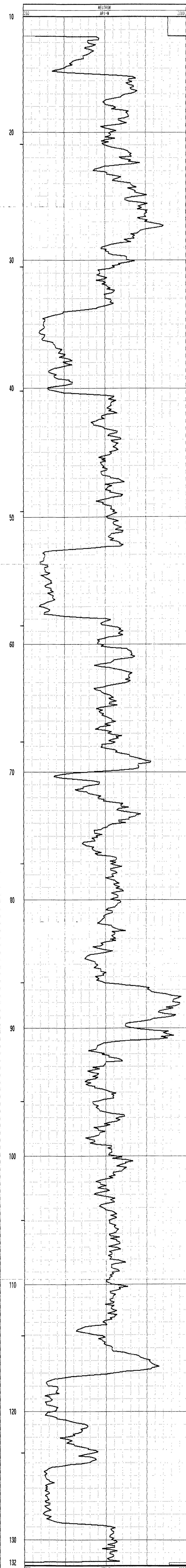
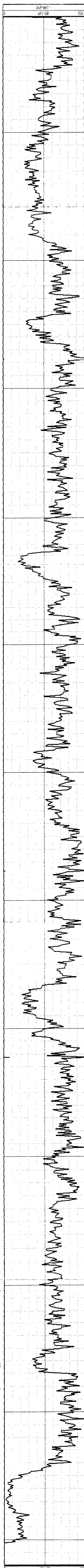
SECTION : TOWNSHIP : RANGE :
 DATE : 03/07/96 PERMANENT DATUM : GROUND ELEVATIONS
 DEPTH DRILLER : 130 ELEV. PERM. DATUM : GROUND KB :
 LOG BOTTOM : 132.00 LOG MEASURED FROM: GL BF :
 LOG TOP : 11.00 DRL MEASURED FROM: GL GL :

CASING DRILLER : 3 LOGGING UNIT : 8909
 CASING TYPE : STEEL FIELD OFFICE : CALGARY, A.B.
 CASING THICKNESS: 0.65 RECORDED BY : B. BOONE

BIT SIZE : 14 BOREHOLE FLUID : H2O/AIR FILE : ORIGINAL
 MAGNETIC DECL. : 23 RM RM TYPE : 9055A
 MATRIX DENSITY : 2.65 RM TEMPERATURE : LOG : I
 FLUID DENSITY : 1.1 MATRIX DELTA T : PLOT : SMORY Y
 NEUTRON MATRIX : SANDSTONE FLUID DELTA T : THRESH: 6000

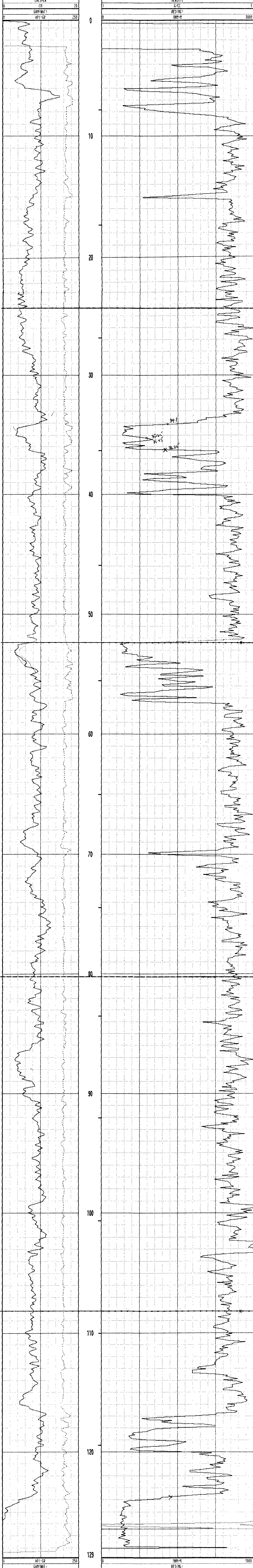
REMARKS:
 OPEN HOLE
 HOLE DEVIATED 60 DEG.

ALL SERVICES PROVIDED SUBJECT TO STANDARD TERMS AND CONDITIONS



GAMMA-RES-DENSITY

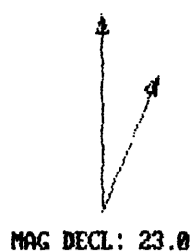
COMPANY : PINE VALLEY COAL LTD. WELL : WRH-96-003 LOCATION/FIELD : WILLOW CREEK PROJECT COUNTY : PINE PASS STATE : BRITISH COLUMBIA SECTION : TOWNSHIP : RANGE : DATE : 03/07/96 DEPTH DRILLER : 130 LOG BOTTOM : 128.90 LOG TOP : 0.50 CASING DRILLER : 3 CASING TYPE : STEEL CASING THICKNESS : 0.65 BIT SIZE : 14 MAGNETIC DECL. : 23 MATRIX DENSITY : 2.65 FLUID DENSITY : 1.1 NEUTRON MATRIX : SANDSTONE REMARKS : OPEN HOLE HOLE DEVIATED 60 DEG. ALL SERVICES PROVIDED SUBJECT TO STANDARD TERMS AND CONDITIONS	OTHER SERVICES: 9055 9030
PERMANENT DATUM : GROUND ELEV. PERM. DATUM : GROUND LOG MEASURED FROM : GL DRL MEASURED FROM : GL LOGGING UNIT : 8989 FIELD OFFICE : CALGARY, A.B. RECORDED BY : B. BOONE	ELEVATIONS KB : DF : GL : FILE : ORIGINAL TYPE : 9030AA LOG : 9 PLOT : SMOKY 3 THRESH : 6000



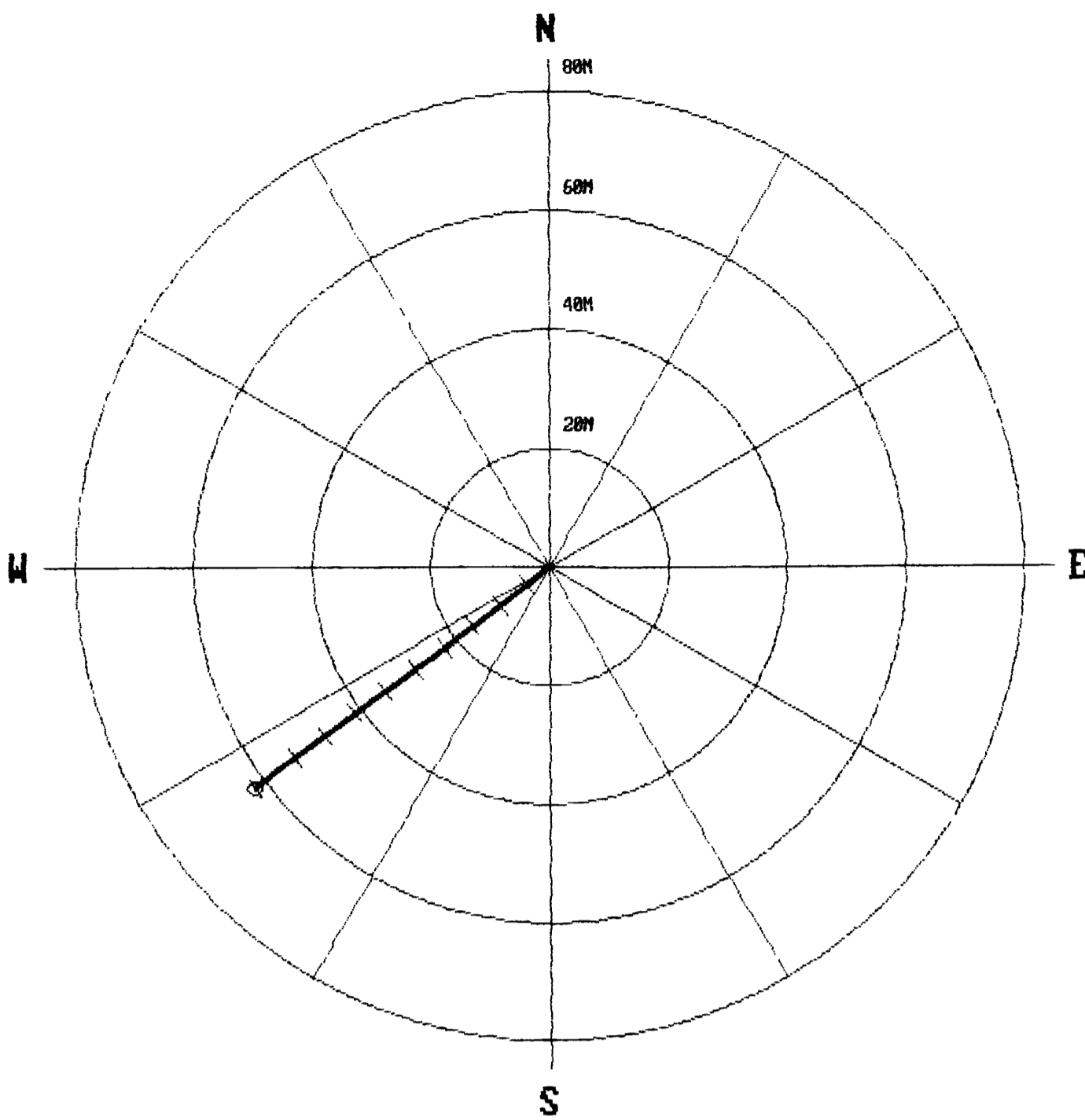
PLAN VIEW

COMPU-LOG DEVIATION

CLIENT: PINE VALLEY COAL LTD.
 LOCATION: WILLOW CREEK PROJECT
 HOLE ID: WRH-96-004
 DATE OF LOG: 03/10/96
 PROBE: 9055A 58



SCALE: 10 M/CM
 TRUE DEPTH: 113.42 M
 AZIMUTH: 233.4
 DISTANCE: 62.0 M
 + = 10 M INCR
 O = BOTTOM OF HOLE



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

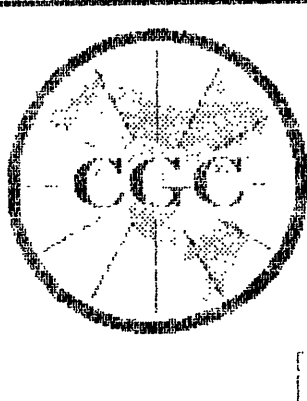
CLIENT : PINE VALLEY COAL LT HOLE ID. : WRH-96-004
 FIELD OFFICE : CALGARY, A.B DATE OF LOG : 03/10/96
 DATA FROM : PROBE : 9055A 58
 MAG. DECL. : 23.000 DEPTH UNITS : METERS LOG 4

CABLE DEPTH	TRUE DEPTH	NORTH DEV.	EAST DEV.	DISTANCE	AZIMUTH	SANG	SANGR
11.7	11.89	-0.03	-0.04	0.1	232.6	31.0	232.6
12.3	12.23	-0.16	-0.20	0.3	232.4	30.9	232.3
14.3	13.95	-0.79	-1.01	1.3	232.0	30.7	231.7
16.3	15.67	-1.42	-1.80	2.3	231.7	30.5	231.9
18.3	17.40	-2.05	-2.59	3.3	231.7	30.3	231.3
20.3	19.12	-2.68	-3.38	4.3	231.5	30.1	232.3
22.3	20.85	-3.31	-4.16	5.3	231.5	30.1	233.1
24.3	22.58	-3.93	-4.95	6.3	231.5	30.1	230.9
26.3	24.31	-4.55	-5.74	7.3	231.6	30.1	231.7
28.3	26.04	-5.17	-6.53	8.3	231.6	30.1	232.8
30.3	27.78	-5.78	-7.32	9.3	231.7	29.9	232.3
32.3	29.51	-6.39	-8.11	10.3	231.8	29.8	234.7
34.3	31.25	-7.00	-8.89	11.3	231.8	29.8	232.7
36.3	32.98	-7.60	-9.69	12.3	231.9	29.8	233.0
38.3	34.72	-8.20	-10.48	13.3	232.0	29.7	232.4
40.3	36.45	-8.80	-11.27	14.3	232.0	29.9	232.7
42.3	38.18	-9.40	-12.07	15.3	232.1	30.0	233.2
44.3	39.92	-10.00	-12.87	16.3	232.1	30.0	232.5
46.3	41.64	-10.61	-13.67	17.3	232.2	30.0	234.3
48.3	43.37	-11.21	-14.48	18.3	232.2	30.4	234.9
50.3	45.09	-11.81	-15.30	19.3	232.3	30.6	233.1
52.3	46.81	-12.43	-16.11	20.3	232.4	30.7	233.2
54.3	48.53	-13.04	-16.93	21.4	232.4	30.8	229.3
56.3	50.24	-13.65	-17.77	22.4	232.5	31.1	233.8
58.3	51.96	-14.25	-18.60	23.4	232.5	31.1	233.7
60.3	53.66	-14.86	-19.45	24.5	232.6	31.4	234.4
62.3	55.37	-15.48	-20.28	25.5	232.7	31.3	232.4
64.3	57.08	-16.11	-21.11	26.6	232.6	31.5	223.4
66.3	58.78	-16.72	-21.97	27.6	232.7	32.2	234.2
68.3	60.48	-17.34	-22.83	28.7	232.8	31.7	234.3
70.3	62.18	-17.96	-23.67	29.7	232.8	31.8	234.0
72.3	63.88	-18.57	-24.53	30.8	232.9	32.0	230.0
74.3	65.57	-19.19	-25.40	31.8	232.9	32.2	234.3
76.3	67.26	-19.80	-26.26	32.9	233.0	32.2	234.2
78.3	68.96	-20.42	-27.13	34.0	233.0	32.7	234.3
80.3	70.65	-21.04	-28.00	35.0	233.1	32.2	233.3
82.3	72.34	-21.66	-28.87	36.1	233.1	32.6	240.1
84.3	74.03	-22.28	-29.73	37.2	233.1	32.0	233.2
86.3	75.73	-22.91	-30.58	38.2	233.2	32.0	233.1
88.3	77.42	-23.55	-31.43	39.3	233.2	32.1	242.2
90.3	79.12	-24.15	-32.31	40.3	233.2	32.2	233.8
92.3	80.81	-24.77	-33.18	41.4	233.3	32.1	235.5
94.3	82.50	-25.39	-34.04	42.5	233.3	32.4	233.9
96.3	84.19	-26.01	-34.91	43.5	233.3	32.5	236.6
98.3	85.88	-26.65	-35.77	44.6	233.3	32.3	233.4
100.3	87.57	-27.29	-36.63	45.7	233.3	32.6	233.5
102.3	89.25	-27.92	-37.51	46.8	233.3	32.5	234.1
104.3	90.94	-28.55	-38.38	47.8	233.4	32.4	234.4
106.3	92.63	-29.17	-39.25	48.9	233.4	32.3	231.6
108.3	94.32	-29.81	-40.11	50.0	233.4	32.3	233.2
110.3	96.01	-30.44	-40.97	51.0	233.4	32.1	231.2
112.3	97.70	-31.07	-41.83	52.1	233.4	31.4	228.4

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

CLIENT : PINE VALLEY COAL LT HOLE ID. : WRH-96-004
 FIELD OFFICE : CALGARY, A.B DATE OF LOG : 03/10/96
 DATA FROM : PROBE : 9055A 58
 MAG. DECL. : 23.000 DEPTH UNITS : METERS LOG 4

CABLE DEPTH	TRUE DEPTH	NORTH DEV.	EAST DEV.	DISTANCE	AZIMUTH	SANG	SANGR
114.3	99.40	-31.68	-42.68	53.2	233.4	31.4	229.7
116.3	101.09	-32.32	-43.53	54.2	233.4	32.1	233.2
118.3	102.79	-32.94	-44.39	55.3	233.4	32.0	234.5
120.3	104.48	-33.57	-45.24	56.3	233.4	32.4	233.3
122.3	106.17	-34.19	-46.12	57.4	233.4	32.3	232.1
124.3	107.85	-34.86	-46.96	58.5	233.4	32.5	230.9
126.3	109.54	-35.50	-47.82	59.6	233.4	32.3	233.9
128.3	111.23	-36.14	-48.68	60.6	233.4	32.6	233.7
130.3	112.92	-36.78	-49.54	61.7	233.4	32.6	233.6
130.9	113.42	-36.97	-49.80	62.0	233.4	32.6	233.6

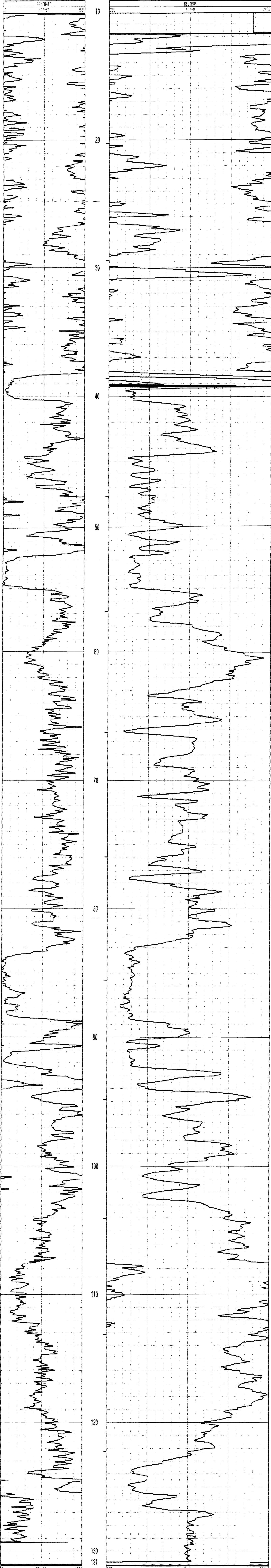


Century GEOPHYSICAL CORP.

GAMMA-NEUTRON

COMPANY	: PINE VALLEY COAL LTD.	OTHER SERVICES:	
WELL	: WRI-96-004 C	9055	
LOCATION/FIELD	: WILLOW CREEK PROJECT	9030	
COUNTY	: PINE PASS		
STATE	: BRITISH COLUMBIA		
SECTION	: TOWNSHIP	RANGE	:
DATE	: 03/10/96	PERMANENT DATUM	: GROUND ELEVATIONS
DEPTH DRILLER	: 130	ELEV. PERM. DATUM	: GROUND KB
LOG BOTTOM	: 131.20	LOG MEASURED FROM	: GL DF
LOG TOP	: 10.30	DRL MEASURED FROM	: GL GL
CASING DRILLER	: 2.5	LOGGING UNIT	: 8909
CASING TYPE	: STEEL	FIELD OFFICE	: CALGARY, A.B
CASING THICKNESS	: 0.65	RECORDED BY	: B.ROONE
BIT SIZE	: 14	BOREHOLE FLUID	: H2O/AIR
MAGNETIC DECL.	: 23	RM	:
MATRIX DENSITY	: 2.65	RM TEMPERATURE	:
FLUID DENSITY	: 1.1	MATRIX DELTA T	:
NEUTRON MATRIX	: SANDSTONE FLUID DELTA T		:
REMARKS	:		:
OPEN HOLE	:		:
HOLE DEVIATED 68 DEG.	:		:

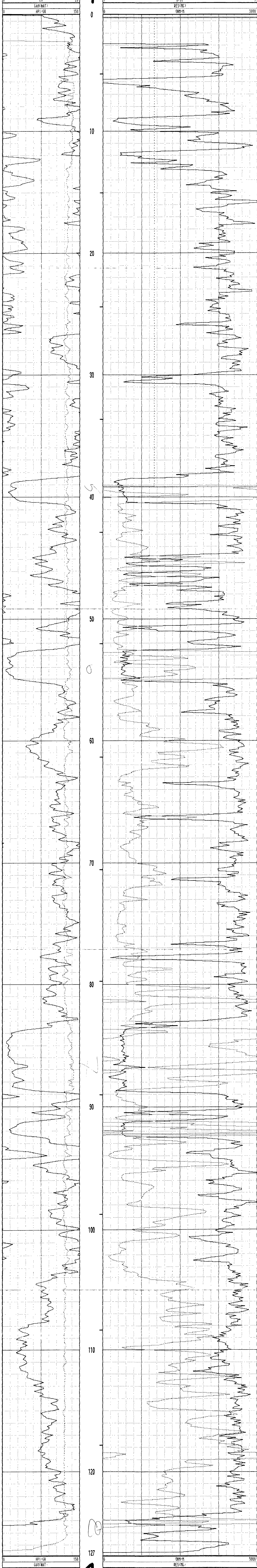
ALL SERVICES PROVIDED SUBJECT TO STANDARD TERMS AND CONDITIONS



GAMMA-RES-DENSITY

COMPANY	: PINE VALLEY COAL LTD.	OTHER SERVICES:	
WELL	: WRH-96-004C	9055	
LOCATION/FIELD	: WILLOW CREEK PROJECT	9030	
COUNTY	: PINE PASS		
STATE	: BRITISH COLUMBIA		
SECTION	: TOWNSHIP	: RANGE	
DATE	: 03/10/96	PERMANENT DATUM : GROUND	ELEVATIONS
DEPTH DRILLER	: 130	ELEV. PERM. DATUM: GROUND	KB :
LOG BOTTOM	: 127.00	LOG MEASURED FROM: GL	DF :
LOG TOP	: 0.60	DRI. MEASURED FROM: GL	GL :
CASING DRILLER	: 2.5	LOGGING UNIT : 8909	
CASING TYPE	: STEEL	FIELD OFFICE : CALGARY, A.B	
CASING THICKNESS	: 0.65	RECORDED BY : B. BOONE	
BIT SIZE	: 14	BOREHOLE FLUID : H2O/AIR	FILE : ORIGINAL
MAGNETIC DECL.	: 23	RH TEMPERATURE :	TYPE : 9030AA
MATRIX DENSITY	: 2.65	MATRIX DELTA T :	LOG : 3
FLUID DENSITY	: 1.1	FLUID DELTA T :	PLOT : SMOKY 3
NEUTRON MATRIX	: SANDSTONE		THRESH: 10000
REMARKS	:		
OPEN HOLE	:		
HOLE DEVIATED 60 DEG.	:		

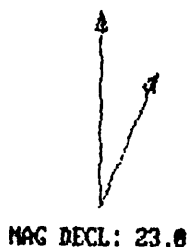
ALL SERVICES PROVIDED SUBJECT TO STANDARD TERMS AND CONDITIONS



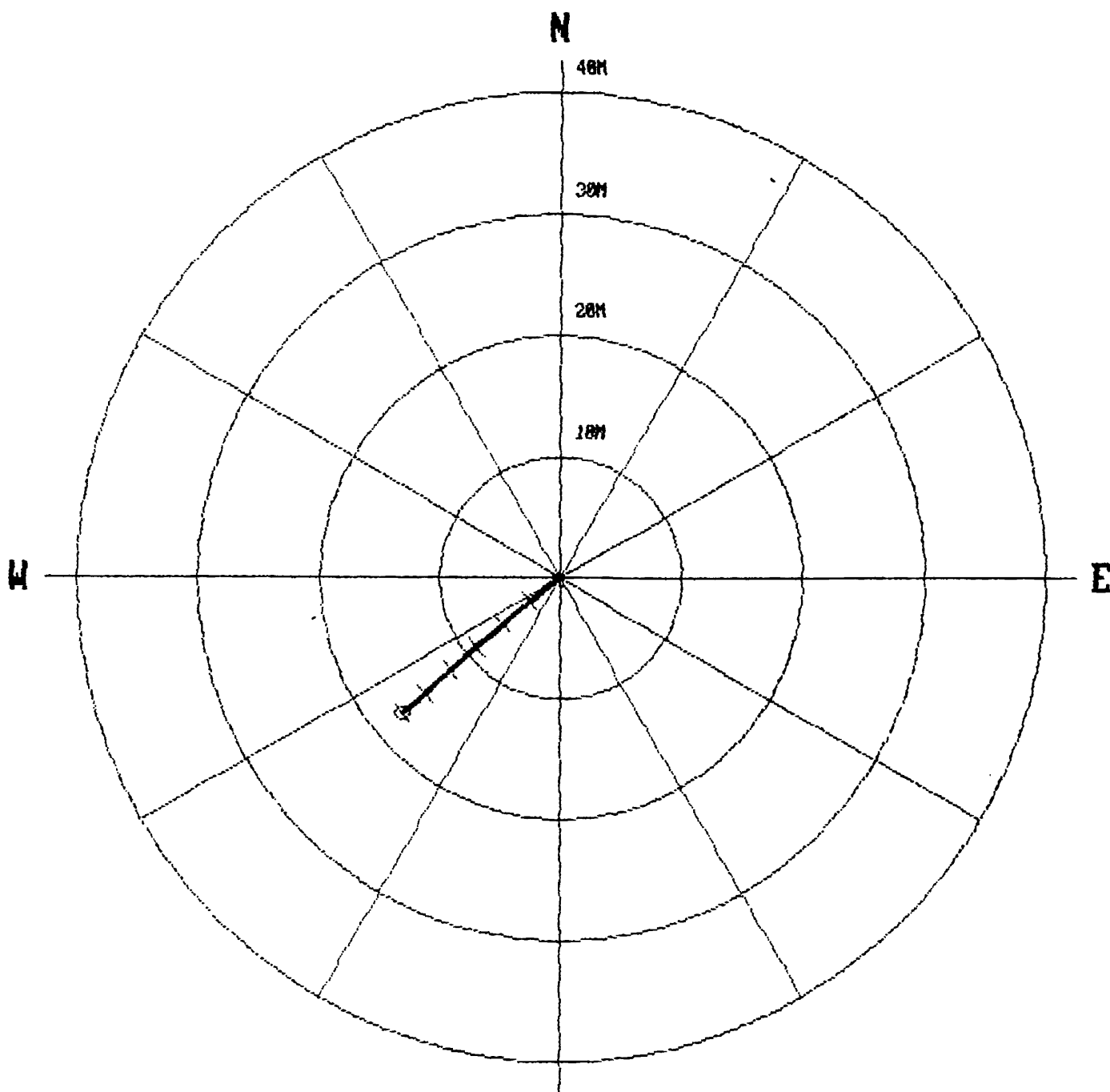
PLAN VIEW

COMPU-LOG DEVIATION

CLIENT: PINE VALLEY COAL LTD.
 LOCATION: WILLOW CREEK PROJECT
 HOLE ID: WRH-96-005
 DATE OF LOG: 03/10/96
 PROBE: 9055A 58



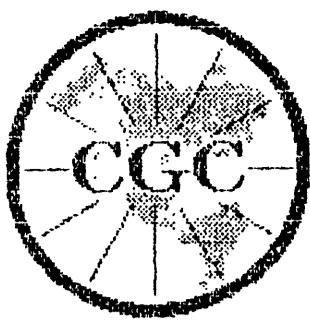
SCALE: 5 M/CM
 TRUE DEPTH: 39.50 M
 AZIMUTH: 229.6
 DISTANCE: 17.2 M
 + = 5 M INCR
 O = BOTTOM OF HOLE



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

CLIENT : PINE VALLEY COAL LT HOLE ID. : WRH-96-005
 FIELD OFFICE : CALGARY, A.B DATE OF LOG : 03/10/96
 DATA FROM : PROBE : 9055A 58
 MAG. DECL. : 23.000 DEPTH UNITS : METERS LOG 7

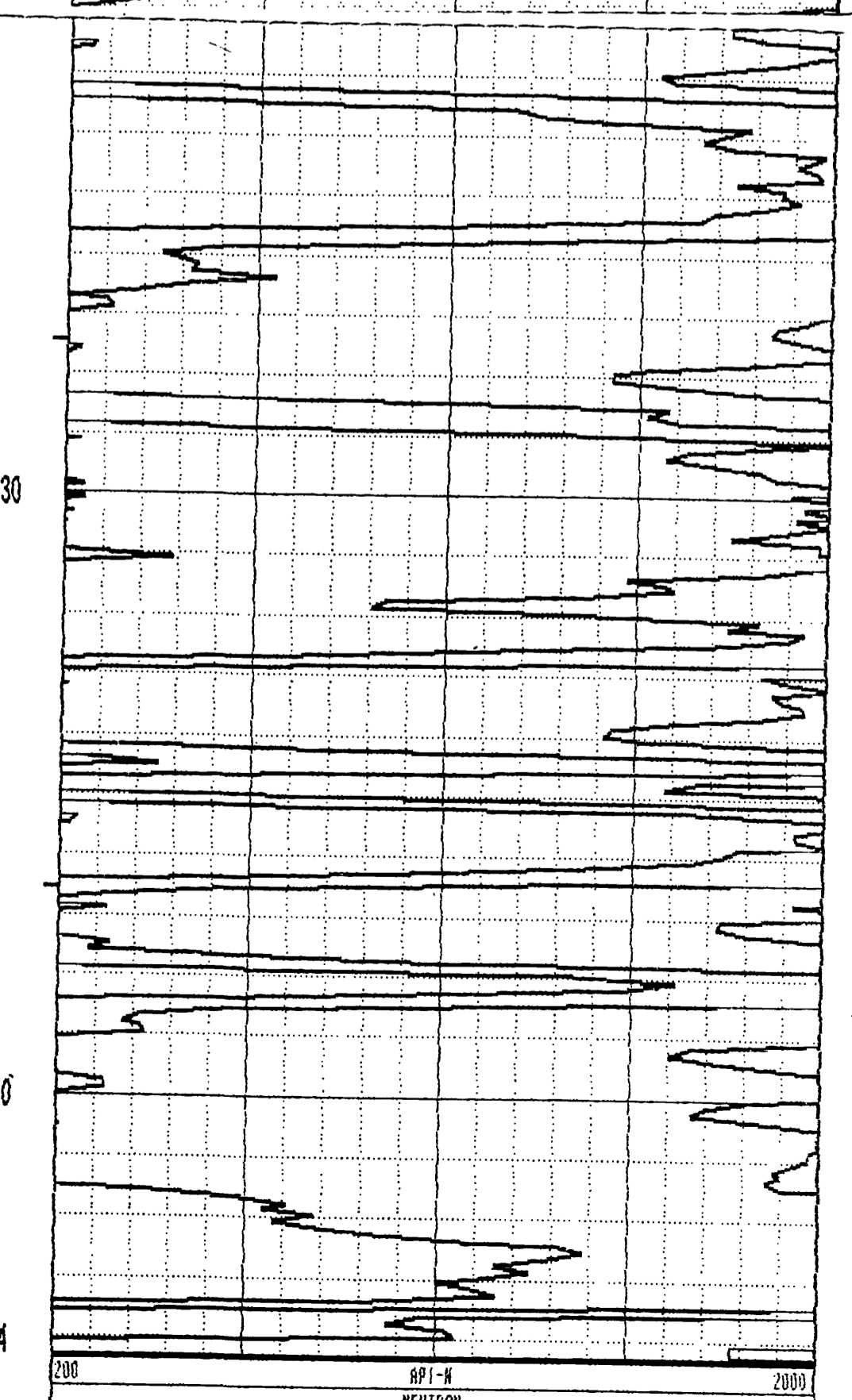
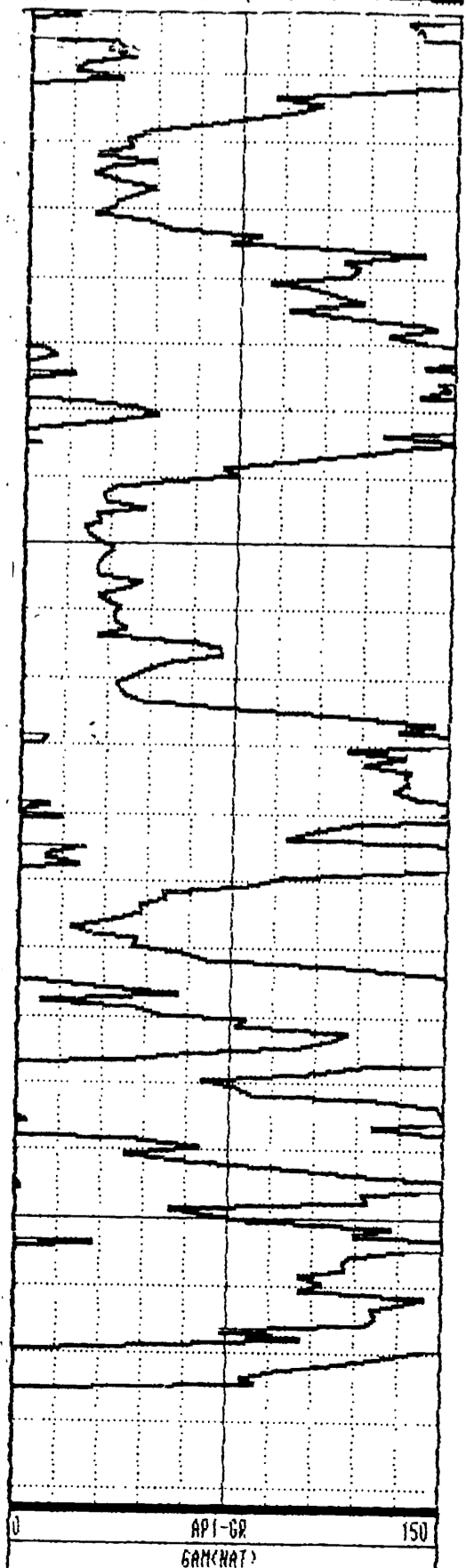
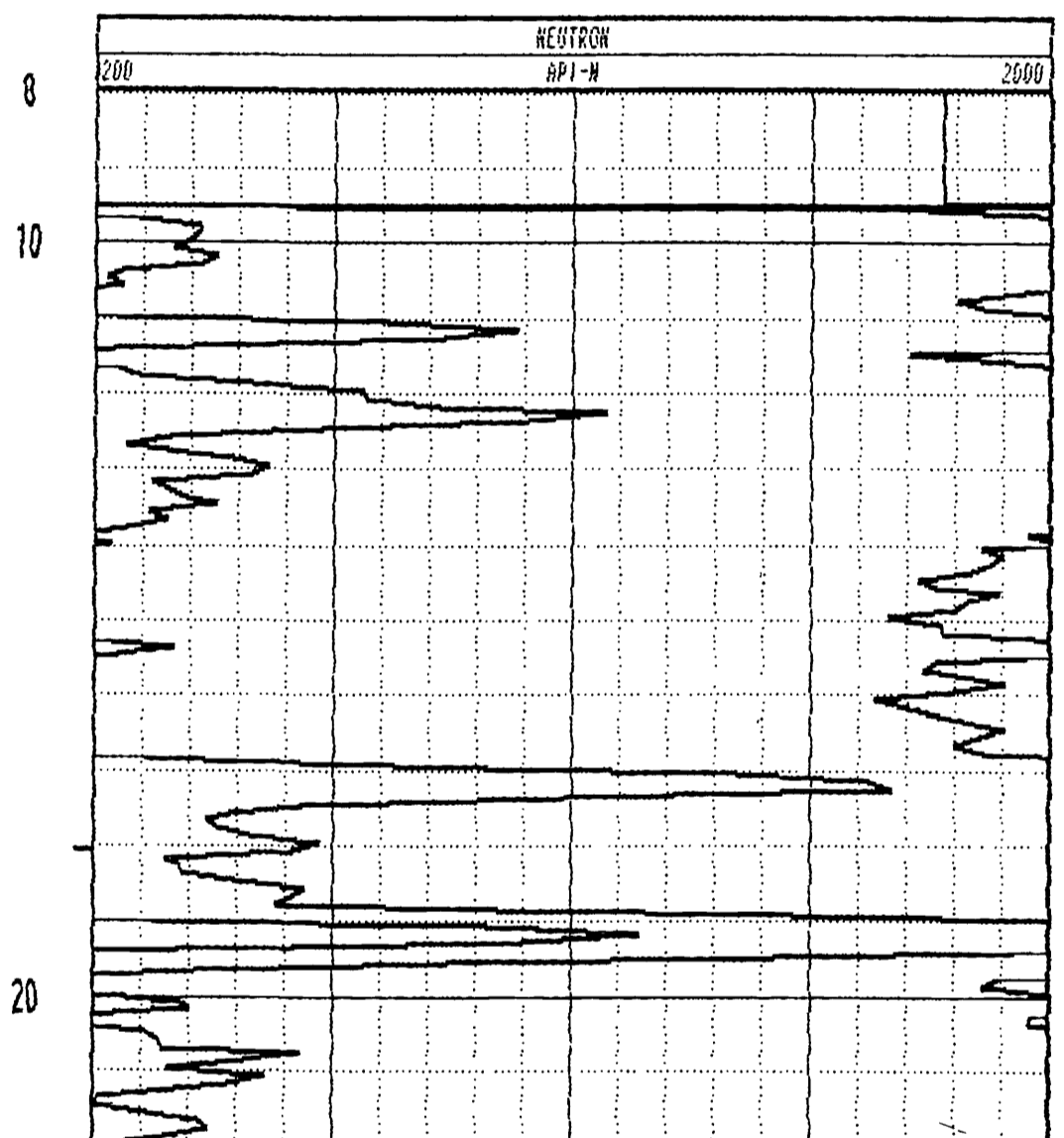
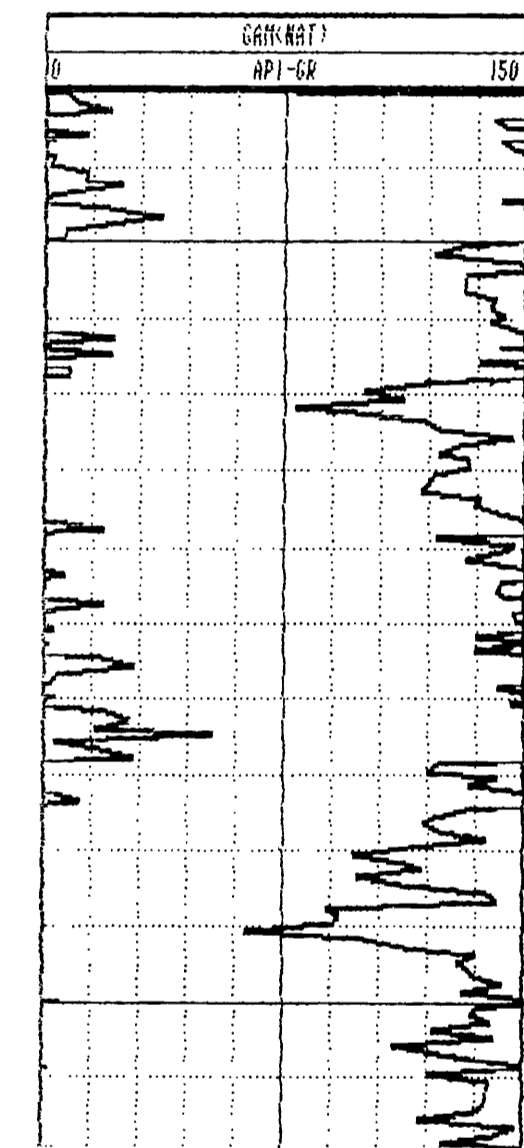
CABLE DEPTH	TRUE DEPTH	NORTH DEV.	EAST DEV.	DISTANCE	AZIMUTH	SANG	SANGB
9.7	9.69	-0.03	-0.04	0.1	231.2	30.8	231.2
10.1	10.03	-0.16	-0.20	0.3	231.7	30.8	232.1
12.1	11.75	-0.80	-1.00	1.3	231.4	30.9	230.5
14.1	13.46	-1.45	-1.79	2.3	231.1	30.5	230.7
16.1	15.19	-2.09	-2.58	3.3	231.0	30.4	229.7
18.1	16.91	-2.73	-3.37	4.3	231.0	30.4	229.9
20.1	18.64	-3.37	-4.14	5.3	230.8	30.0	228.4
22.1	20.37	-4.02	-4.90	6.3	230.6	30.1	229.5
24.1	22.10	-4.67	-5.67	7.3	230.5	30.3	231.6
26.1	23.83	-5.32	-6.44	8.4	230.4	30.0	229.9
28.1	25.56	-5.97	-7.20	9.3	230.3	29.9	230.6
30.1	27.30	-6.61	-7.95	10.3	230.3	29.7	231.5
32.1	29.03	-7.26	-8.70	11.3	230.1	29.5	229.5
34.1	30.77	-7.93	-9.42	12.3	229.9	29.8	229.3
36.1	32.51	-8.57	-10.16	13.3	229.8	29.2	231.1
38.1	34.26	-9.22	-10.89	14.3	229.7	29.4	228.4
40.1	36.00	-9.87	-11.62	15.2	229.7	29.3	224.7
42.1	37.75	-10.50	-12.36	16.2	229.7	28.9	227.8
44.1	39.50	-11.14	-13.09	17.2	229.6	28.8	235.8
44.1	39.50	-11.14	-13.09	17.2	229.6	28.8	235.8



Century GEOPHYSICAL CORP.

GAMMA-NEUTRON

COMPANY	: PINE VALLEY COAL LTD.	OTHER SERVICES:			
WELL	: WRH-96-005	9055			
LOCATION/FIELD	: WILLOW CREEK PROJECT	9030			
COUNTY	: PINE PASS				
STATE	: BRITISH COLUMBIA				
SECTION	: TOWNSHIP	RANGE :			
DATE	: 03/10/96	PERMANENT DATUM : GROUND	ELEVATIONS		
DEPTH DRILLER	: 45	ELEV. PERM. DATUM: GROUND	KB :		
LOG BOTTOM	: 44.40	LOG MEASURED FROM: GL	DF :		
LOG TOP	: 8.10	DRL MEASURED FROM: GL	GL :		
CASING DRILLER	: 2.5	LOGGING UNIT	: 8909		
CASING TYPE	: STEEL	FIELD OFFICE	: CALGARY, A.B		
CASING THICKNESS:	0.65	RECORDED BY	: B. BOONE		
BIT SIZE	: 14	BOREHOLE FLUID	: H2O/AIR	FILE	: ORIGINAL
MAGNETIC DECL.	: 23	RM	:	TYPE	: 9055A
MATRIX DENSITY	: 2.65	RM TEMPERATURE	:	LOG	: 5
FLUID DENSITY	: 1.1	MATRIX DELTA T	:	PLOT	: SMORY ?
NEUTRON MATRIX	: SANDSTONE	FLUID DELTA T	:	THRESH:	10000
REMARKS	:				
OPEN HOLE					
HOLE DEVIATED 60 DEG.					
ALL SERVICES PROVIDED SUBJECT TO STANDARD TERMS AND CONDITIONS					



GAMMA-RES-DENSITY

COMPANY : PINE VALLEY COAL LTD.
 WELL : WRH-96-005
 LOCATION/FIELD : WILLOW CREEK PROJECT
 COUNTY : PINE PASS
 STATE : BRITISH COLUMBIA
 SECTION : TOWNSHIP : RANGE :

OTHER SERVICES:
 9055
 9030

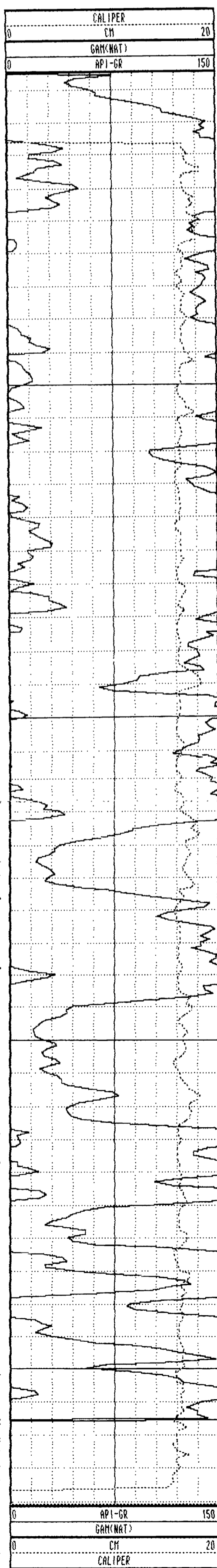
DATE : 03/10/96 PERMANENT DATUM : GROUND ELEVATIONS
 DEPTH DRILLER : 45 ELEV. PERM. DATUM: GROUND KB :
 LOG BOTTOM : 44.20 LOG MEASURED FROM: GL DF :
 LOG TOP : 0.60 DRL MEASURED FROM: GL GL :
 CASING DRILLER : 2.5 LOGGING UNIT : 8909
 CASING TYPE : STEEL FIELD OFFICE : CALGARY, A.B
 CASING THICKNESS: 0.65 RECORDED BY : B. BOONE

BIT SIZE : 14 BOREHOLE FLUID : H2O/AIR FILE : ORIGINAL
 MAGNETIC DECL. : 23 RM : TYPE : 9030AA
 MATRIX DENSITY : 2.65 RM TEMPERATURE : LOG : 6
 FLUID DENSITY : 1.1 MATRIX DELTA T : PLOT : SMOKY 3
 NEUTRON MATRIX : SANDSTONE FLUID DELTA T : THRESH: 10000
 REMARKS :

OPEN HOLE

HOLE DEVIATED 60 DEG.

ALL SERVICES PROVIDED SUBJECT TO STANDARD TERMS AND CONDITIONS



5

0

10

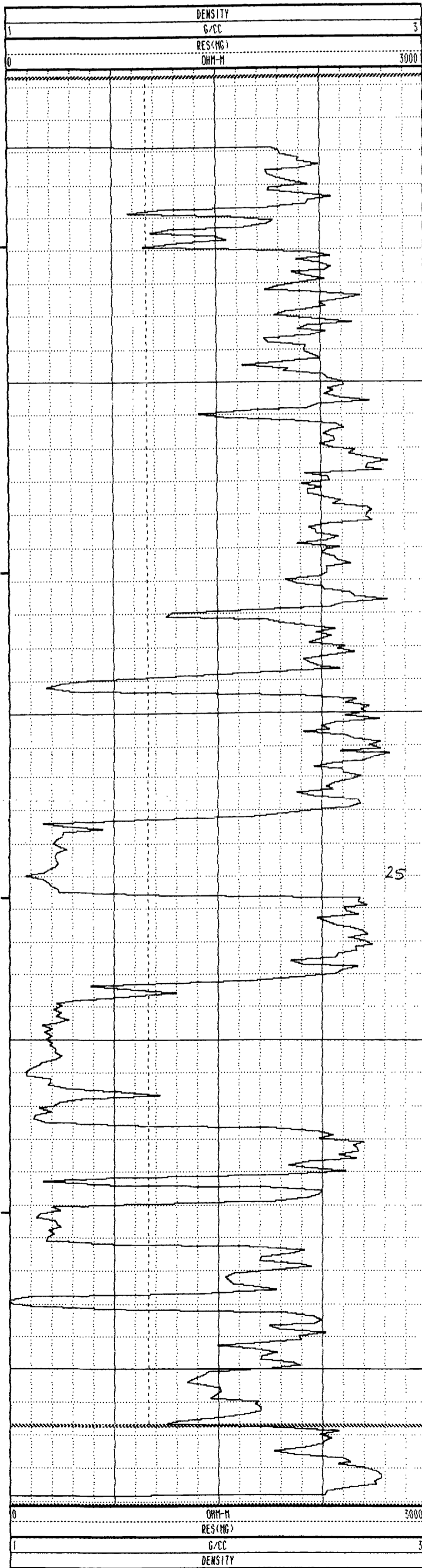
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30

40

44

5

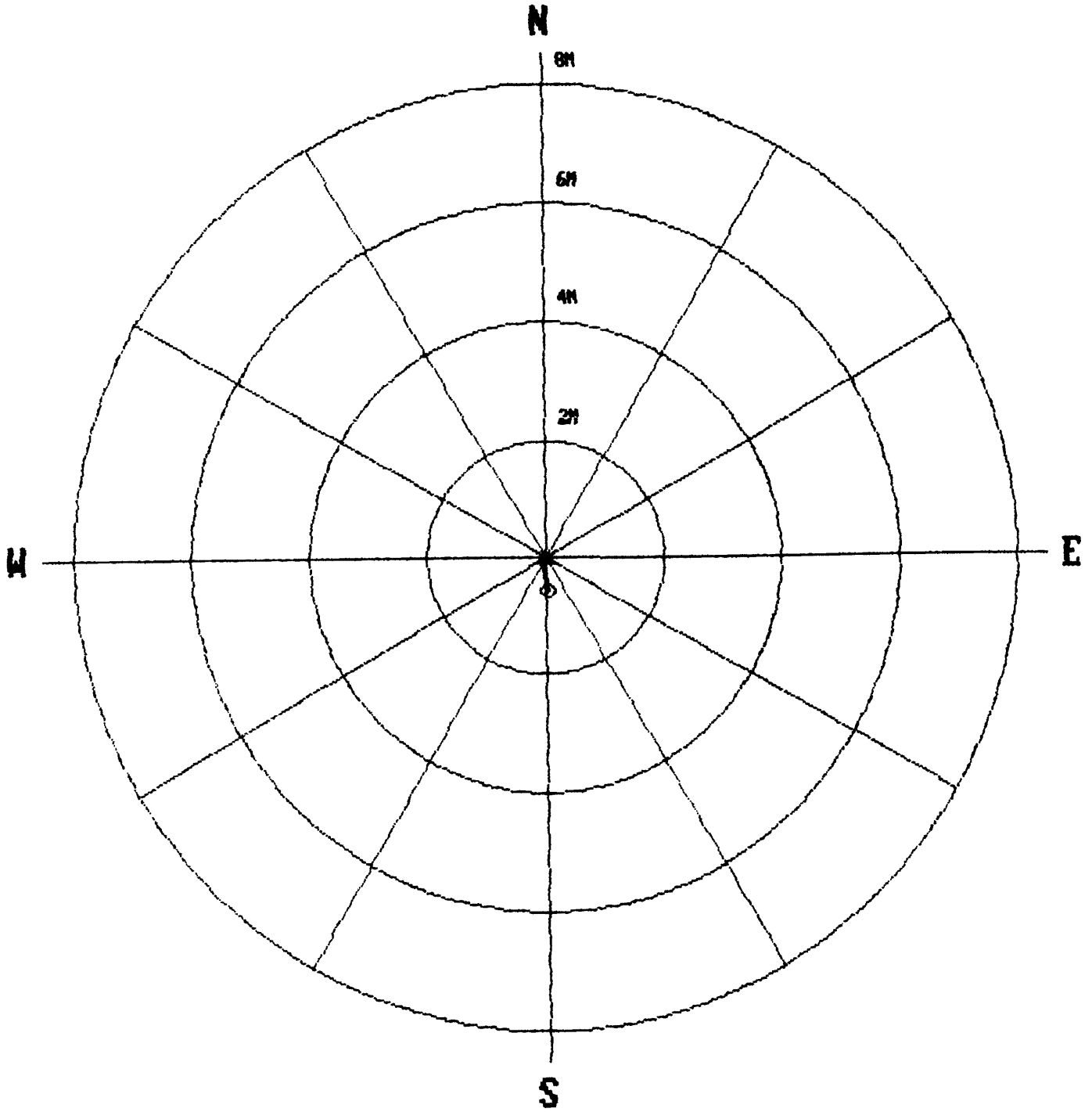


PLAN VIEW COMPU-LOG DEVIATION

CLIENT: PINE VALLEY COAL LTD.
 LOCATION: WILLOW CREEK PROJECT
 HOLE ID: WRH-96-006
 DATE OF LOG: 03/18/96
 PROBE: 9055A 58



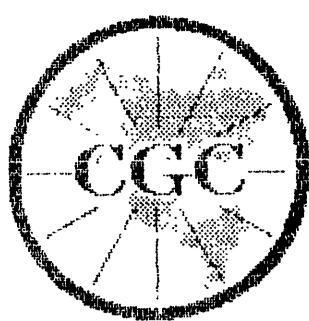
SCALE: 1 M/CM
 TRUE DEPTH: 38.59 M
 AZIMUTH: 175.1
 DISTANCE: 0.6 M
 + = 20 M INCR
 O = BOTTOM OF HOLE



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

CLIENT	: PINE VALLEY COAL LT	HOLE ID.	: WRH-96-006
FIELD OFFICE	: CALGARY, A.B	DATE OF LOG	: 03/10/96
DATA FROM	:	PROBE	: 9055A 58
MAG. DECL.	: 23.000	DEPTH UNITS	: METERS LOG 7

CABLE DEPTH	TRUE DEPTH	NORTH DEV.	EAST DEV.	DISTANCE	AZIMUTH	SANG	SANGB
7.7	7.70	-0.00	-0.00	0.0	186.1	0.4	186.1
8.1	8.10	-0.00	-0.00	0.0	220.2	0.3	236.1
10.1	10.10	-0.01	-0.01	0.0	216.3	0.2	190.2
12.1	12.10	-0.02	-0.01	0.0	212.7	0.5	208.2
14.1	14.10	-0.03	-0.01	0.0	199.3	0.9	160.2
16.1	16.10	-0.06	-0.01	0.1	192.7	1.1	193.0
18.1	18.10	-0.09	-0.02	0.1	191.0	0.7	181.3
20.1	20.10	-0.11	-0.02	0.1	190.2	1.0	172.3
22.1	22.10	-0.15	-0.02	0.2	188.9	1.3	181.9
24.1	24.10	-0.19	-0.02	0.2	186.8	1.3	167.1
26.1	26.10	-0.24	-0.02	0.2	185.0	1.1	175.9
28.1	28.10	-0.28	-0.02	0.3	183.6	1.4	153.3
30.1	30.10	-0.33	-0.01	0.3	181.6	1.5	168.0
32.1	32.10	-0.38	0.00	0.4	179.3	1.4	163.2
34.1	34.10	-0.43	0.01	0.4	178.2	1.2	170.3
36.1	36.09	-0.48	0.02	0.5	177.1	1.5	171.5
38.1	38.09	-0.53	0.04	0.5	175.4	1.9	160.9
38.6	38.59	-0.55	0.05	0.6	175.1	1.7	165.5

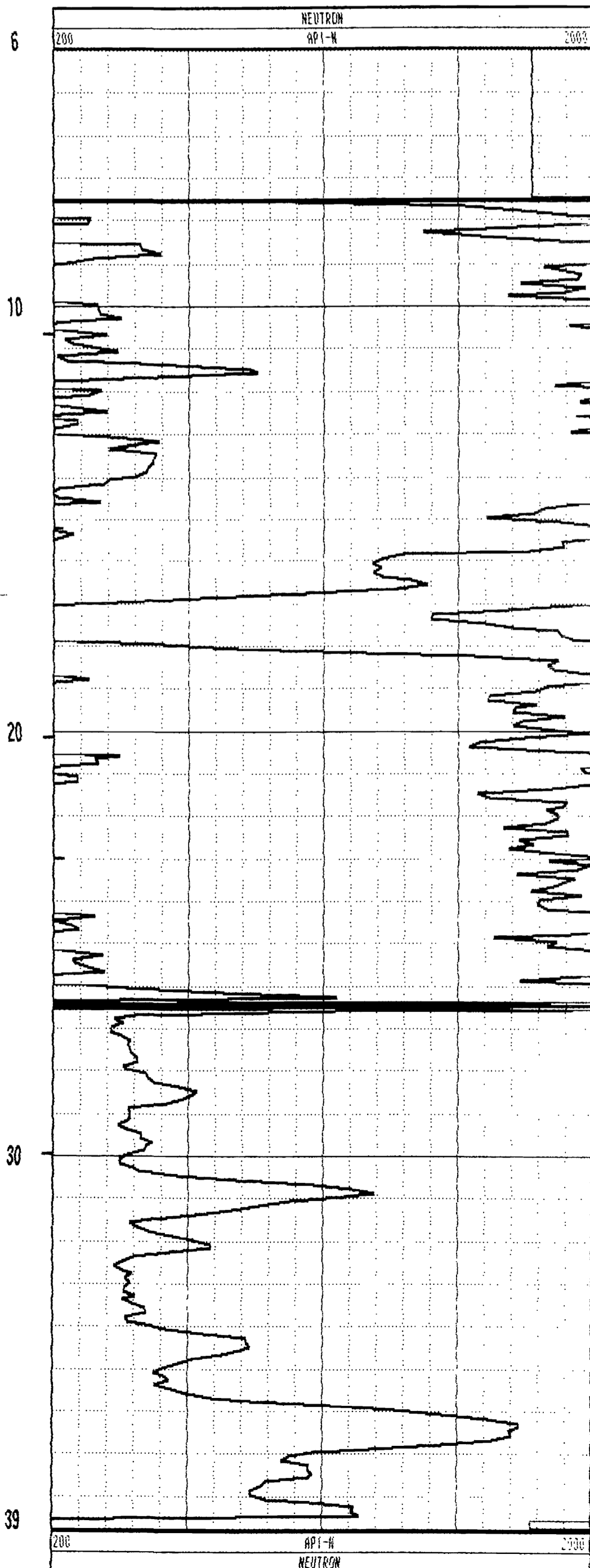
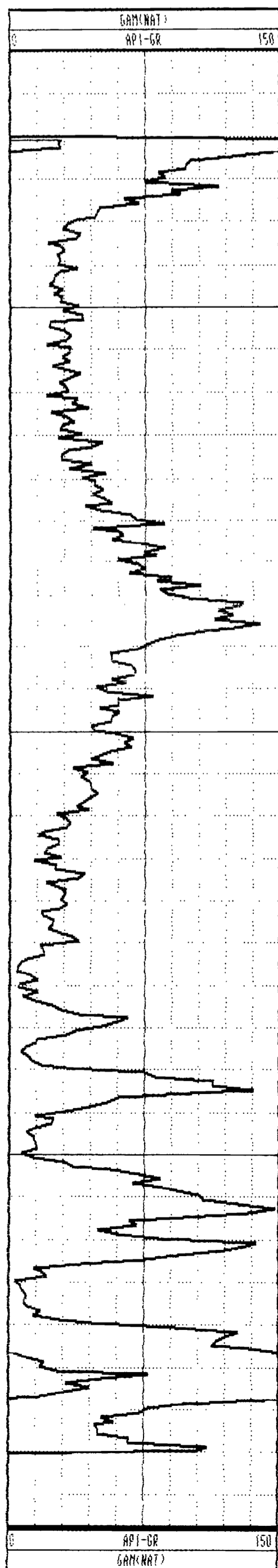


Century GEOPHYSICAL CORP.

GAMMA-NEUTRON

COMPANY	: PINE VALLEY COAL LTD.	OTHER SERVICES:	
WELL	: WRH-96-006	9055	
LOCATION/FIELD	: WILLOW CREEK PROJECT	9030	
COUNTY	: PINE PASS		
STATE	: BRITISH COLUMBIA		
SECTION	: TOWNSHIP	RANGE	:
DATE	: 03/10/96	PERMANENT DATUM	: GROUND ELEVATIONS
DEPTH DRILLER	: 39	ELEV. PERM. DATUM:	: GROUND KB :
LOG BOTTOM	: 38.90	LOG MEASURED FROM:	: CL DF :
LOG TOP	: 6.10	DRL MEASURED FROM:	: CL GL :
CASING DRILLER	: 3	LOGGING UNIT	: 8909
CASING TYPE	: STEEL	FIELD OFFICE	: CALGARY, A.B
CASING THICKNESS:	0.65	RECORDED BY	: B. BOONE
BIT SIZE	: 14	BOREHOLE FLUID	: H2O/AIR FILE : ORIGINAL
MAGNETIC DECL.	: 23	RM	: TYPE : 9055A
MATRIX DENSITY	: 2.65	RM TEMPERATURE	: LOG : 3
FLUID DENSITY	: 1.1	MATRIX DELTA T	: PLOT : SMOBY 7
NEUTRON MATRIX	: SANDSTONE FLUID DELTA T		: THRESH: 100000
REMARKS	:		
OPEN HOLE			
VERTICAL			

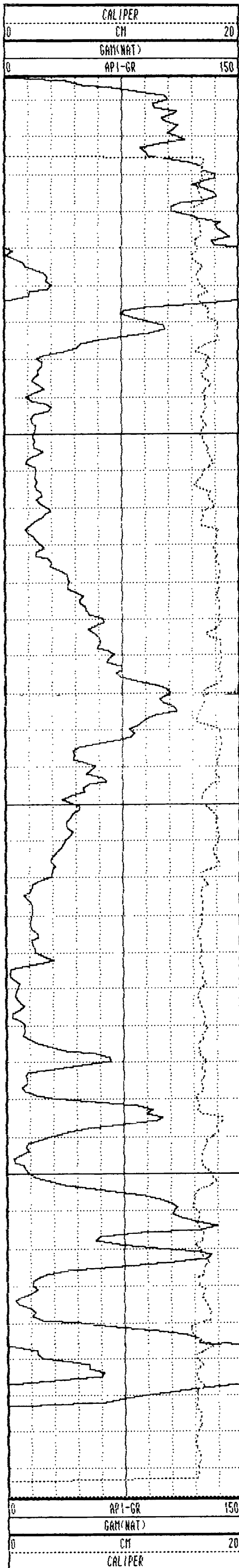
ALL SERVICES PROVIDED SUBJECT TO STANDARD TERMS AND CONDITIONS



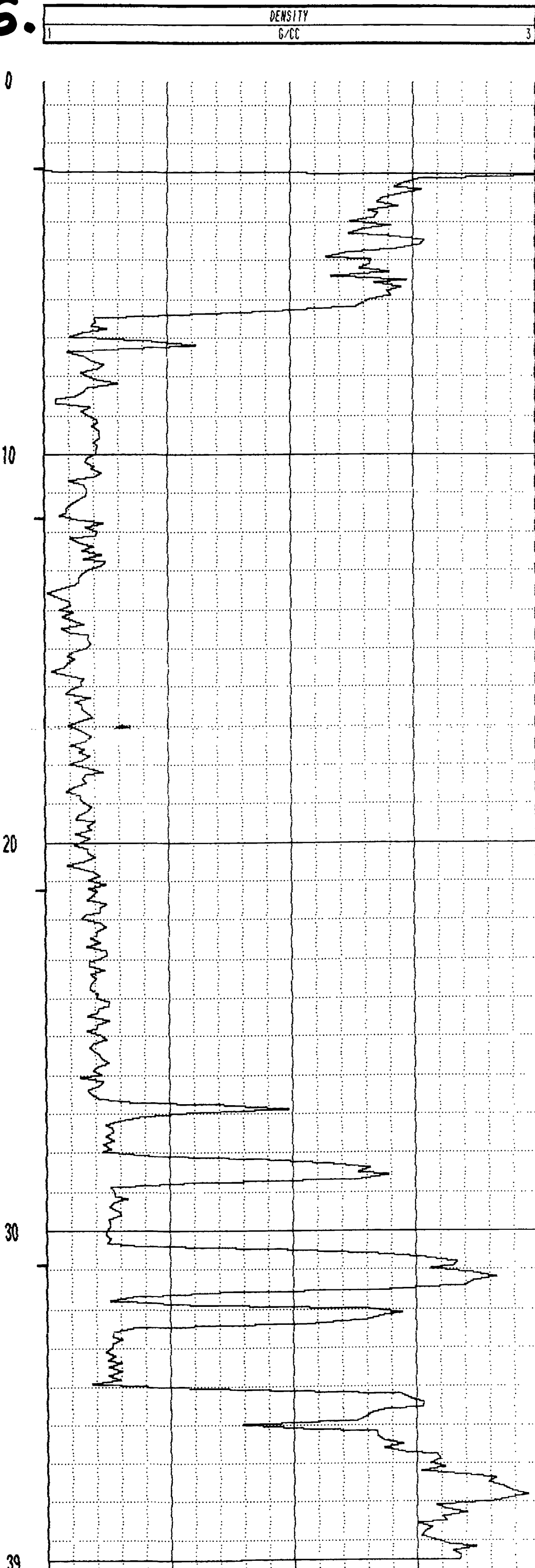
GAMMA-RES-DENSITY

COMPANY	: PINE VALLEY COAL LTD.	OTHER SERVICES:	
WELL	: WRH-96-006	9055	
LOCATION/FIELD	: WILLOW CREEK PROJECT	9030	
COUNTY	: PINE PASS		
STATE	: BRITISH COLUMBIA		
SECTION	: TOWNSHIP		RANGE :
DATE	: 03/10/96	PERMANENT DATUM	: GROUND ELEVATIONS
DEPTH DRILLER	: 39	ELEV. PERM. DATUM	: GROUND XB :
LOG BOTTOM	: 38.90	LOG MEASURED FROM	: GL DF :
LOG TOP	: 0.50	DRL MEASURED FROM	: GL CL :
CASING DRILLER	: 3	LOGGING UNIT	: 8909
CASING TYPE	: STEEL	FIELD OFFICE	: CALGARY, A.B
CASING THICKNESS	: 0.65	RECORDED BY	: B. BOONE
BIT SIZE	: 14	BOREHOLE FLUID	: H2O/AIR FILE : ORIGINAL
MAGNETIC DECL.	: 23	RM	: TYPE : 9030AA
MATRIX DENSITY	: 2.65	RM TEMPERATURE	: LOG : 4
FLUID DENSITY	: 1.1	MATRIX DELTA T	: PLOT : SMORY1 0
NEUTRON MATRIX	: SANDSTONE	FLUID DELTA T	: THRESH: 100000
REMARKS	:		
OPEN HOLE			
VERTICAL			

ALL SERVICES PROVIDED SUBJECT TO STANDARD TERMS AND CONDITIONS



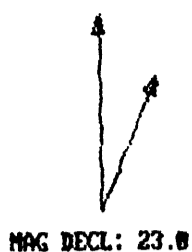
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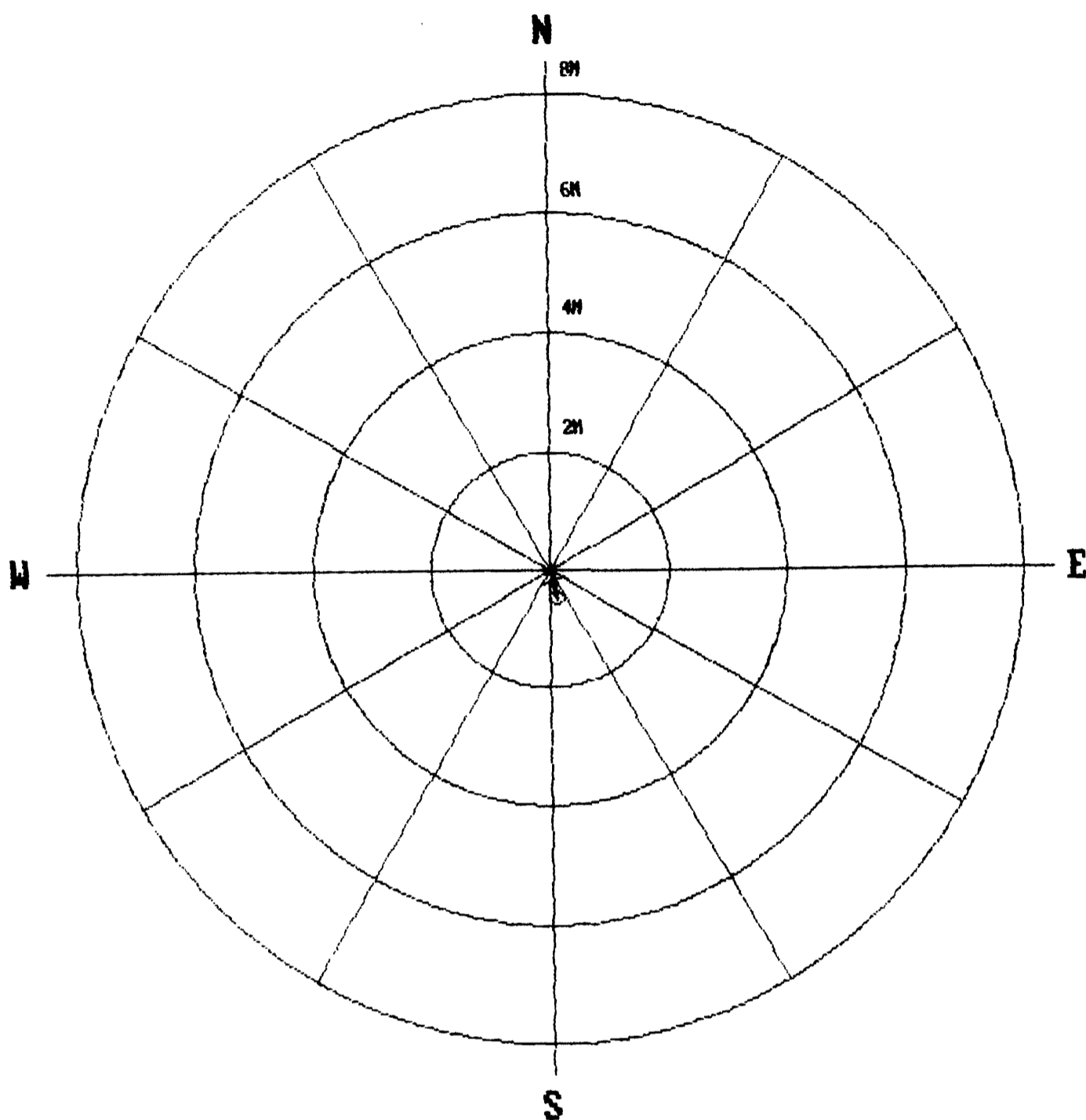
6.

PLAN VIEW COMPU-LOG DEVIATION

CLIENT: PINE VALLEY COAL LTD.
 LOCATION: WILLOW CREEK PROJECT
 HOLE ID: WRH-96-007
 DATE OF LOG: 03/10/96
 PROBE: 9035A 58



SCALE: 1 M/CM
 TRUE DEPTH: 35.30 M
 AZIMUTH: 166.3
 DISTANCE: 0.5 M
 + = 20 M INCR
 O = BOTTOM OF HOLE



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

| | | | |
|--------------|-----------------------|-------------|----------------|
| CLIENT | : PINE VALLEY COAL LT | HOLE ID. | : WRH-96-007 |
| FIELD OFFICE | : CALGARY, A.B | DATE OF LOG | : 03/10/96 |
| DATA FROM | : | PROBE | : 9055A , 58 |
| MAG. DECL. | : 23.000 | DEPTH UNITS | : METERS LOG 2 |

| CABLE DEPTH | TRUE DEPTH | NORTH DEV. | EAST DEV. | DISTANCE | AZIMUTH | SANG | SANGB |
|-------------|------------|------------|-----------|----------|---------|------|-------|
| 6.6 | 6.60 | -0.00 | 0.00 | 0.0 | 99.7 | 0.8 | 99.7 |
| 7.0 | 7.00 | -0.00 | 0.01 | 0.0 | 100.7 | 0.8 | 108.8 |
| 9.0 | 9.00 | -0.02 | 0.02 | 0.0 | 136.3 | 0.6 | 164.5 |
| 11.0 | 11.00 | -0.05 | 0.04 | 0.1 | 140.6 | 0.8 | 91.5 |
| 13.0 | 13.00 | -0.07 | 0.05 | 0.1 | 145.6 | 0.7 | 158.5 |
| 15.0 | 15.00 | -0.09 | 0.06 | 0.1 | 148.8 | 0.8 | 165.6 |
| 17.0 | 17.00 | -0.13 | 0.06 | 0.1 | 154.4 | 1.0 | 164.3 |
| 19.0 | 19.00 | -0.16 | 0.07 | 0.2 | 157.9 | 0.8 | 179.4 |
| 21.0 | 21.00 | -0.20 | 0.07 | 0.2 | 160.2 | 1.5 | 171.4 |
| 23.0 | 23.00 | -0.24 | 0.08 | 0.3 | 161.8 | 1.2 | 166.8 |
| 25.0 | 25.00 | -0.27 | 0.08 | 0.3 | 162.8 | 1.1 | 165.8 |
| 27.0 | 27.00 | -0.30 | 0.09 | 0.3 | 163.6 | 1.0 | 168.5 |
| 29.0 | 29.00 | -0.34 | 0.10 | 0.4 | 164.3 | 1.1 | 168.4 |
| 31.0 | 31.00 | -0.38 | 0.10 | 0.4 | 165.2 | 1.1 | 168.4 |
| 33.0 | 33.00 | -0.42 | 0.11 | 0.4 | 165.9 | 1.2 | 171.8 |
| 35.0 | 35.00 | -0.46 | 0.11 | 0.5 | 166.3 | 1.1 | 169.6 |
| 35.3 | 35.30 | -0.46 | 0.11 | 0.5 | 166.3 | 1.3 | 165.2 |

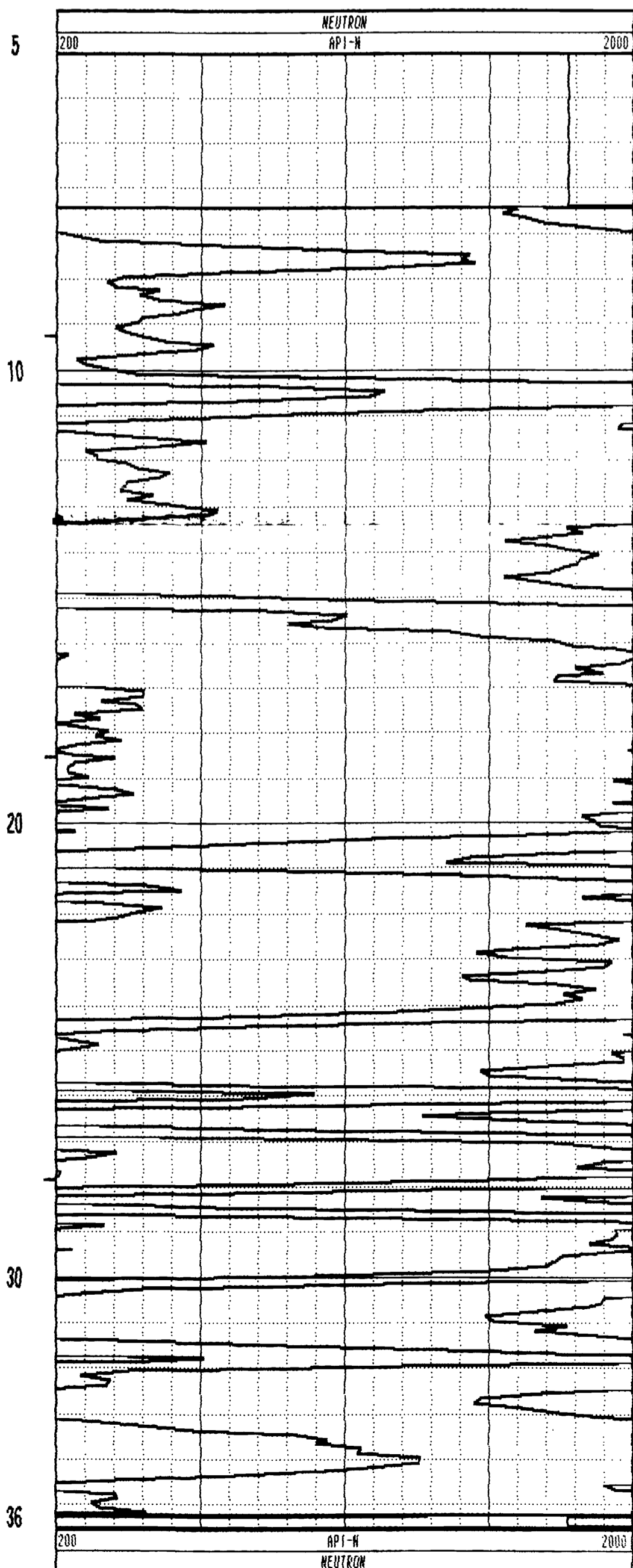
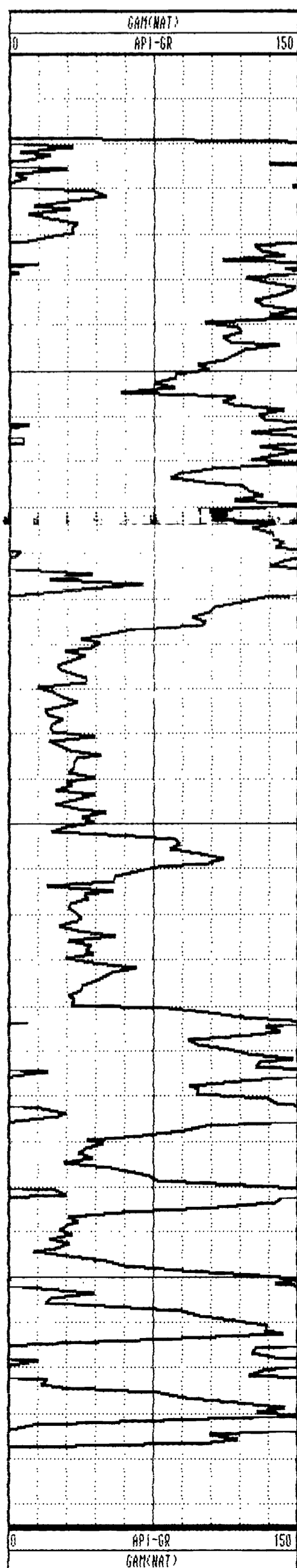


Century GEOPHYSICAL CORP.

GAMMA-NEUTRON

| | | | | |
|-------------------|---------------------------|--------------------|----------------|-----------------|
| COMPANY | : PINE VALLEY COAL LTD. | OTHER SERVICES: | | |
| WELL | : WRH-96-007 | 9055 | | |
| LOCATION/FIELD | : WILLOW CREEK PROJECT | 9030 | | |
| COUNTY | : PINE PASS | | | |
| STATE | : BRITISH COLUMBIA | | | |
| SECTION | : TOWNSHIP | : RANGE | | |
| DATE | : 03/10/96 | PERMANENT DATUM | : GROUND | ELEVATIONS |
| DEPTH DRILLER | : 36 | ELEV. PERM. DATUM: | GROUND | KB |
| LOG BOTTOM | : 35.60 | LOG MEASURED FROM: | GL | DF |
| LOG TOP | : 5.00 | DRL MEASURED FROM: | GL | GL |
| CASING DRILLER | : 3 | LOGGING UNIT | : 8909 | |
| CASING TYPE | : STEEL | FIELD OFFICE | : CALGARY, A.B | |
| CASING THICKNESS: | 0.65 | RECORDED BY | : B. BOONE | |
| BIT SIZE | : 14 | BOREHOLE FLUID | : H2O/AIR | FILE : ORIGINAL |
| MAGNETIC DECL. | : 23 | RM | : | TYPE : 9055A |
| MATRIX DENSITY | : 2.65 | RM TEMPERATURE | : | LOG : 0 |
| FLUID DENSITY | : 1.1 | MATRIX DELTA T | : | PLOT : SMOKY ? |
| NEUTRON MATRIX | : SANDSTONE FLUID DELTA T | : | | THRESH: 10000 |
| REMARKS | : | | | |
| OPEN HOLE | | | | |
| VERTICAL | | | | |

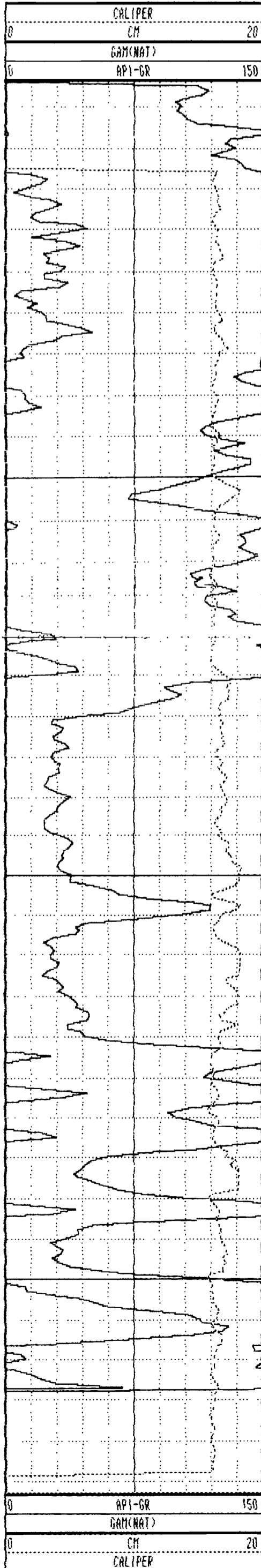
ALL SERVICES PROVIDED SUBJECT TO STANDARD TERMS AND CONDITIONS



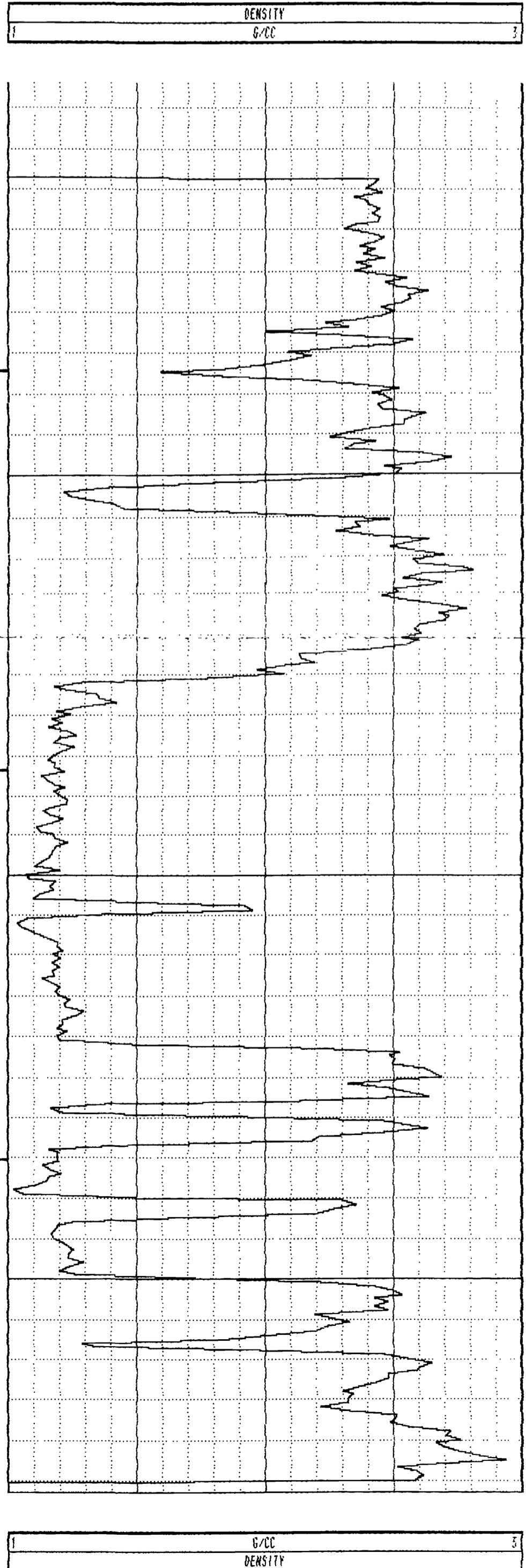
GAMMA-RES-DENSITY

| | | | |
|------------------|-------------------------|-------------------|---------------------------|
| COMPANY | : PINE VALLEY COAL LTD. | OTHER SERVICES: | |
| WELL | : WRH-96-007 | 9055 | |
| LOCATION/FIELD | : WILLOW CREEK PROJECT | 9030 | |
| COUNTY | : PINE PASS | | |
| STATE | : BRITISH COLUMBIA | | |
| SECTION | : TOWNSHIP | : RANGE | : |
| DATE | : 03/10/96 | PERMANENT DATUM | : GROUND ELEVATIONS |
| DEPTH DRILLER | : 36 | ELEV. PERM. DATUM | : GROUND KB |
| LOG BOTTOM | : 35.40 | LOG MEASURED FROM | : GL DF |
| LOG TOP | : 0.50 | DRL MEASURED FROM | : GL GL |
| CASING DRILLER | : 3 | LOGGING UNIT | : 8909 |
| CASING TYPE | : STEEL | FIELD OFFICE | : CALGARY, A.B |
| CASING THICKNESS | : 0.65 | RECORDED BY | : B. BOONE |
| BIT SIZE | : 14 | BOREHOLE FLUID | : H2O/AIR FILE : ORIGINAL |
| MAGNETIC DECL. | : 23 | RM | : TYPE : 9030AA |
| MATRIX DENSITY | : 2.65 | RM TEMPERATURE | : LOG : 1 |
| FLUID DENSITY | : 1.1 | MATRIX DELTA T | : PLOT : SMOKY1 0 |
| NEUTRON MATRIX | : SANDSTONE | FLUID DELTA T | : THRESH: 10000 |
| REMARKS | : | | |
| OPEN HOLE | | | |
| VERTICAL | | | |

ALL SERVICES PROVIDED SUBJECT TO STANDARD TERMS AND CONDITIONS



7

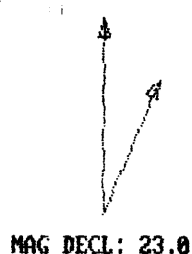


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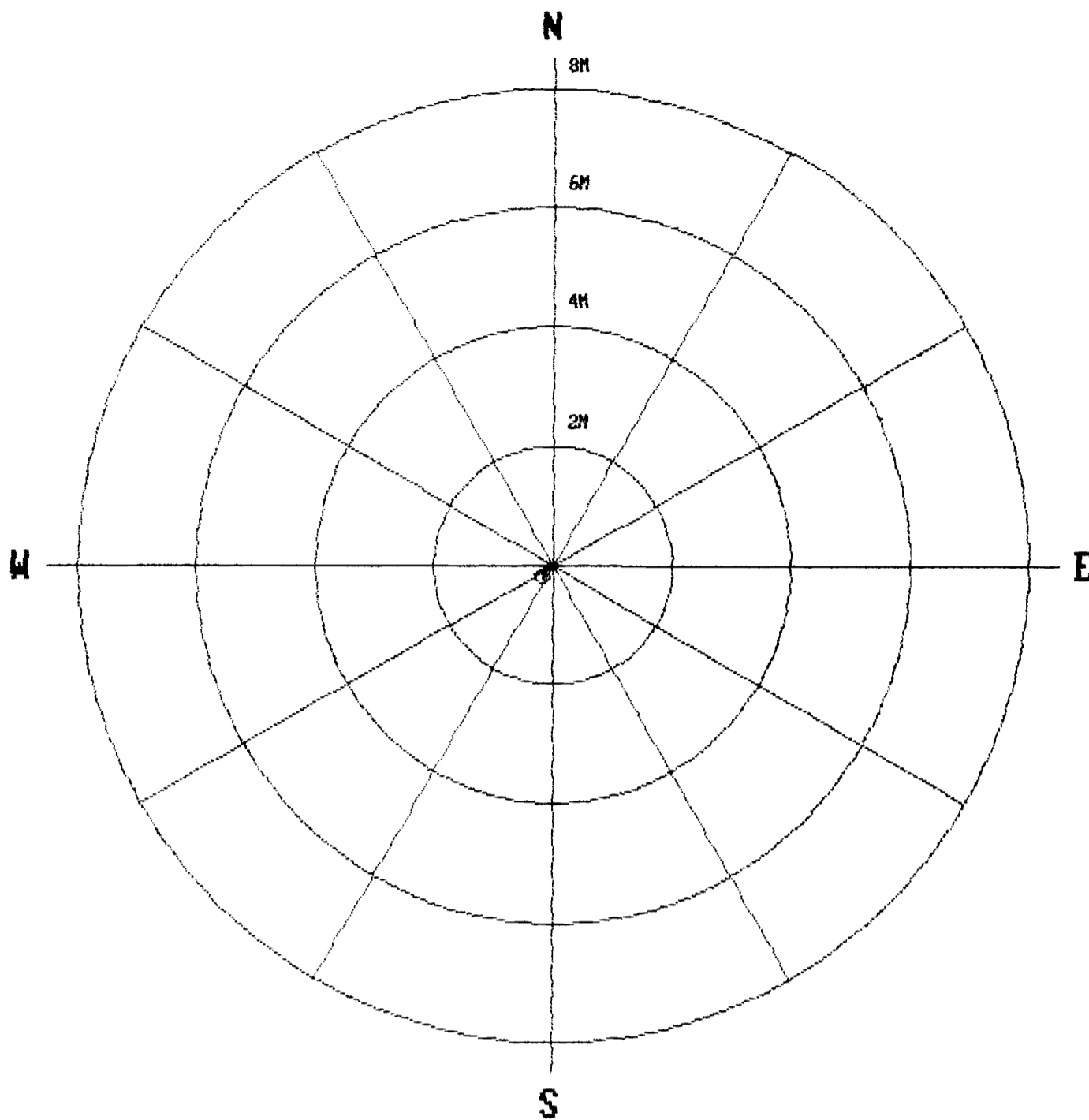
PLAN VIEW

COMPU-LOG DEVIATION

CLIENT: PINE VALLEY COAL LTD.
 LOCATION: WILLOW CREEK PROJECT
 HOLE ID: WRH-96-008
 DATE OF LOG: 03/11/96
 PROBE: 9055A 58



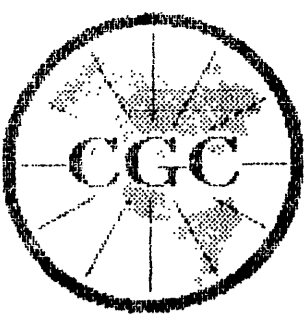
SCALE: 1 M/CM
 TRUE DEPTH: 61.10 M
 AZIMUTH: 223.0
 DISTANCE: 0.3 M
 + = 100 M INCR
 ○ = BOTTOM OF HOLE



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

CLIENT : PINE VALLEY COAL LT HOLE ID. : WRH-96-008
 FIELD OFFICE : CALGARY, A.B DATE OF LOG : 03/11/96
 DATA FROM : PROBE : 9055A 58
 MAG. DECL. : 23.000 DEPTH UNITS : METERS LOG 1

| CABLE DEPTH | TRUE DEPTH | NORTH DEV. | EAST DEV. | DISTANCE | AZIMUTH | SANG | SANGB |
|-------------|------------|------------|-----------|----------|---------|------|-------|
| 9.6 | 9.60 | -0.00 | 0.00 | 0.0 | 156.9 | 0.1 | 156.9 |
| 10.0 | 10.00 | 0.00 | 0.00 | 0.0 | 19.3 | 0.3 | 100.3 |
| 12.0 | 12.00 | 0.00 | 0.00 | 0.0 | 23.5 | 0.1 | 32.6 |
| 14.0 | 14.00 | 0.01 | 0.00 | 0.0 | 20.9 | 0.1 | 265.0 |
| 16.0 | 16.00 | 0.01 | 0.00 | 0.0 | 19.4 | 0.0 | 174.3 |
| 18.0 | 18.00 | 0.00 | -0.00 | 0.0 | 348.3 | 0.3 | 268.8 |
| 20.0 | 20.00 | 0.00 | -0.00 | 0.0 | 270.1 | 0.2 | 49.4 |
| 22.0 | 22.00 | -0.00 | -0.01 | 0.0 | 241.5 | 0.1 | 196.0 |
| 24.0 | 24.00 | -0.01 | -0.01 | 0.0 | 234.1 | 0.1 | 199.0 |
| 26.0 | 26.00 | -0.01 | -0.01 | 0.0 | 227.0 | 0.2 | 105.6 |
| 28.0 | 28.00 | -0.02 | -0.01 | 0.0 | 219.6 | 0.3 | 251.0 |
| 30.0 | 30.00 | -0.02 | -0.02 | 0.0 | 221.0 | 0.3 | 226.1 |
| 32.0 | 32.00 | -0.03 | -0.03 | 0.0 | 228.7 | 0.1 | 279.2 |
| 34.0 | 34.00 | -0.03 | -0.04 | 0.0 | 236.5 | 0.3 | 290.2 |
| 36.0 | 36.00 | -0.02 | -0.05 | 0.1 | 243.7 | 0.4 | 290.1 |
| 38.0 | 38.00 | -0.02 | -0.05 | 0.1 | 248.5 | 0.2 | 257.3 |
| 40.0 | 40.00 | -0.02 | -0.06 | 0.1 | 251.0 | 0.2 | 244.8 |
| 42.0 | 42.00 | -0.02 | -0.07 | 0.1 | 250.9 | 0.4 | 266.3 |
| 44.0 | 44.00 | -0.03 | -0.09 | 0.1 | 249.8 | 0.3 | 234.0 |
| 46.0 | 46.00 | -0.04 | -0.10 | 0.1 | 249.2 | 0.4 | 218.0 |
| 48.0 | 48.00 | -0.04 | -0.10 | 0.1 | 247.5 | 0.2 | 196.5 |
| 50.0 | 50.00 | -0.05 | -0.11 | 0.1 | 244.4 | 0.3 | 187.8 |
| 52.0 | 52.00 | -0.07 | -0.11 | 0.1 | 237.8 | 0.8 | 210.2 |
| 54.0 | 54.00 | -0.09 | -0.12 | 0.2 | 232.5 | 0.8 | 222.7 |
| 56.0 | 56.00 | -0.12 | -0.13 | 0.2 | 229.1 | 0.8 | 220.2 |
| 58.0 | 58.00 | -0.14 | -0.15 | 0.2 | 227.2 | 1.1 | 207.2 |
| 60.0 | 60.00 | -0.17 | -0.17 | 0.2 | 224.5 | 1.0 | 208.9 |
| 61.1 | 61.10 | -0.19 | -0.17 | 0.3 | 223.0 | 0.9 | 209.7 |

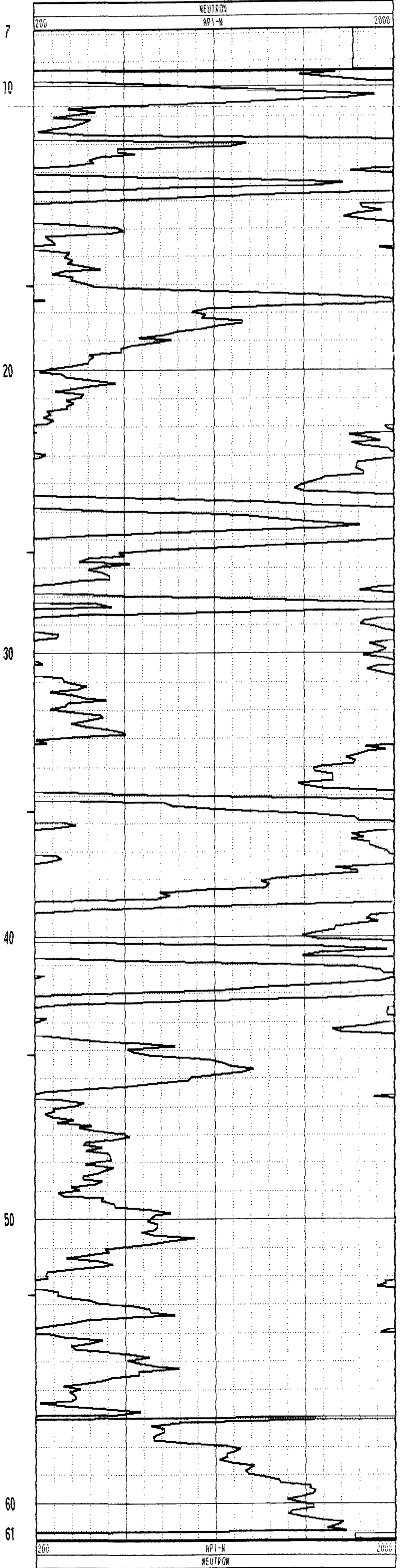
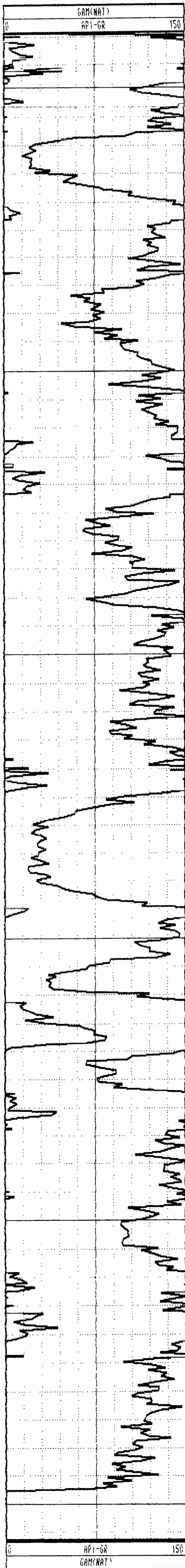


Century GEOPHYSICAL CORP.

GAMMA-NEUTRON

| | | | | |
|-------------------|-------------------------|---------------------------|----------------|------------------|
| COMPANY | : PINE VALLEY COAL LTD. | OTHER SERVICES: | | |
| WELL | : WRH-96-008 | 9055 | | |
| LOCATION/FIELD | : WILLOW CREEK PROJECT | 9030 | | |
| COUNTY | : PINE PASS | | | |
| STATE | : BRITISH COLUMBIA | | | |
| SECTION | : TOWNSHIP | : RANGE : | | |
| DATE | : 03/11/96 | PERMANENT DATUM : GROUND | ELEVATIONS | |
| DEPTH DRILLER | : 62 | ELEV. PERM. DATUM: GROUND | KB : | |
| LOG BOTTOM | : 61.40 | LOG MEASURED FROM: GL | DF : | |
| LOG TOP | : 8.00 | DRL MEASURED FROM: GL | GL : | |
| CASING DRILLER | : 2.7 | LOGGING UNIT | : 8909 | |
| CASING TYPE | : STEEL | FIELD OFFICE | : CALGARY, A.B | |
| CASING THICKNESS: | 0.65 | RECORDED BY | : B. BOONE | |
| BIT SIZE | : 14 | BOREHOLE FLUID | : H2O/AIR | FILE : ORIGINAL. |
| MAGNETIC DECL. | : 23 | RM | : | TYPE : 9055A |
| MATRIX DENSITY | : 2.65 | RM TEMPERATURE | : | LOG : 8 |
| FLUID DENSITY | : 1.1 | MATRIX DELTA T | : | PLOT : SMOKY ? |
| NEUTRON MATRIX | : SANDSTONE | FLUID DELTA T | : | THRESH: 10000 |
| REMARKS | : | | | |
| OPEN HOLE | | | | |
| VERTICAL | | | | |

ALL SERVICES PROVIDED SUBJECT TO STANDARD TERMS AND CONDITIONS



GAMMA-RES-DENSITY

COMPANY : PINE VALLEY COAL LTD.
 WELL : WRH-96-008
 LOCATION/FIELD : WILLOW CREEK PROJECT
 COUNTY : PINE PASS
 STATE : BRITISH COLUMBIA
 SECTION : TOWNSHIP : RANGE :

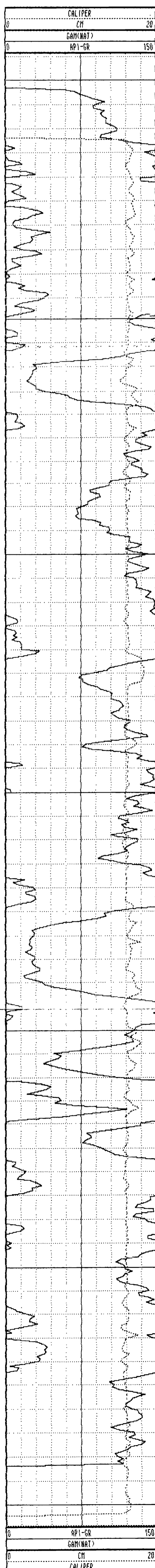
OTHER SERVICES:
 9055
 9030

DATE : 03/11/96 PERMANENT DATUM : GROUND ELEVATIONS
 DEPTH DRILLER : 62 ELEV. PERM. DATUM: GROUND KB :
 LOG BOTTOM : 61.00 LOG MEASURED FROM: GL DF :
 LOG TOP : 0.40 DRL MEASURED FROM: GL GL :

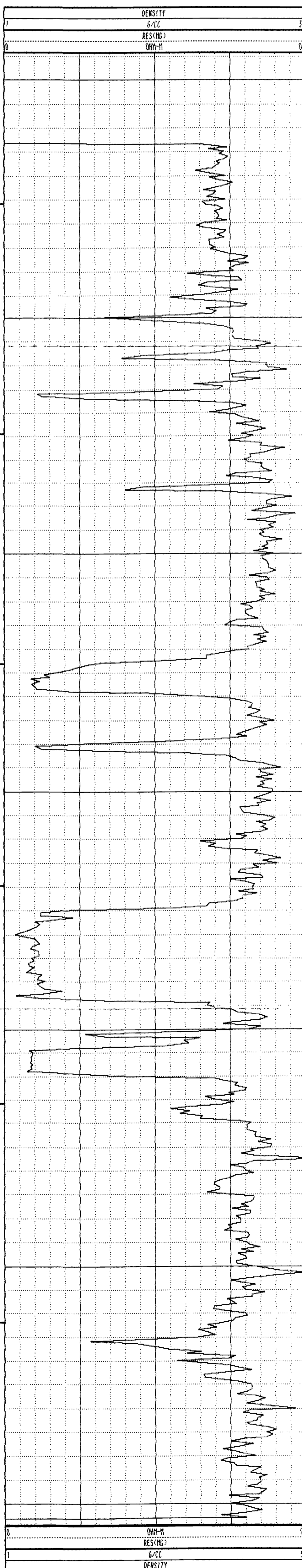
CASING DRILLER : 2.7 LOGGING UNIT : 8909
 CASING TYPE : STEEL FIELD OFFICE : CALGARY, A.B
 CASING THICKNESS: 0.65 RECORDED BY : B. BOONE

BIT SIZE : 14 BOREHOLE FLUID : H2O/AIR FILE : ORIGINAL
 MAGNETIC DECL. : 23 RM : TYPE : 9030AA
 MATRIX DENSITY : 2.65 RM TEMPERATURE : LOG : 0
 FLUID DENSITY : 1.1 MATRIX DELTA T : PLOT : SMOKY 3
 NEUTRON MATRIX : SANDSTONE FLUID DELTA T : THRESH: 10000
 REMARKS :
 OPEN HOLE
 VERTICAL

ALL SERVICES PROVIDED SUBJECT TO STANDARD TERMS AND CONDITIONS



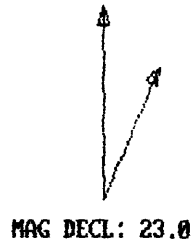
8



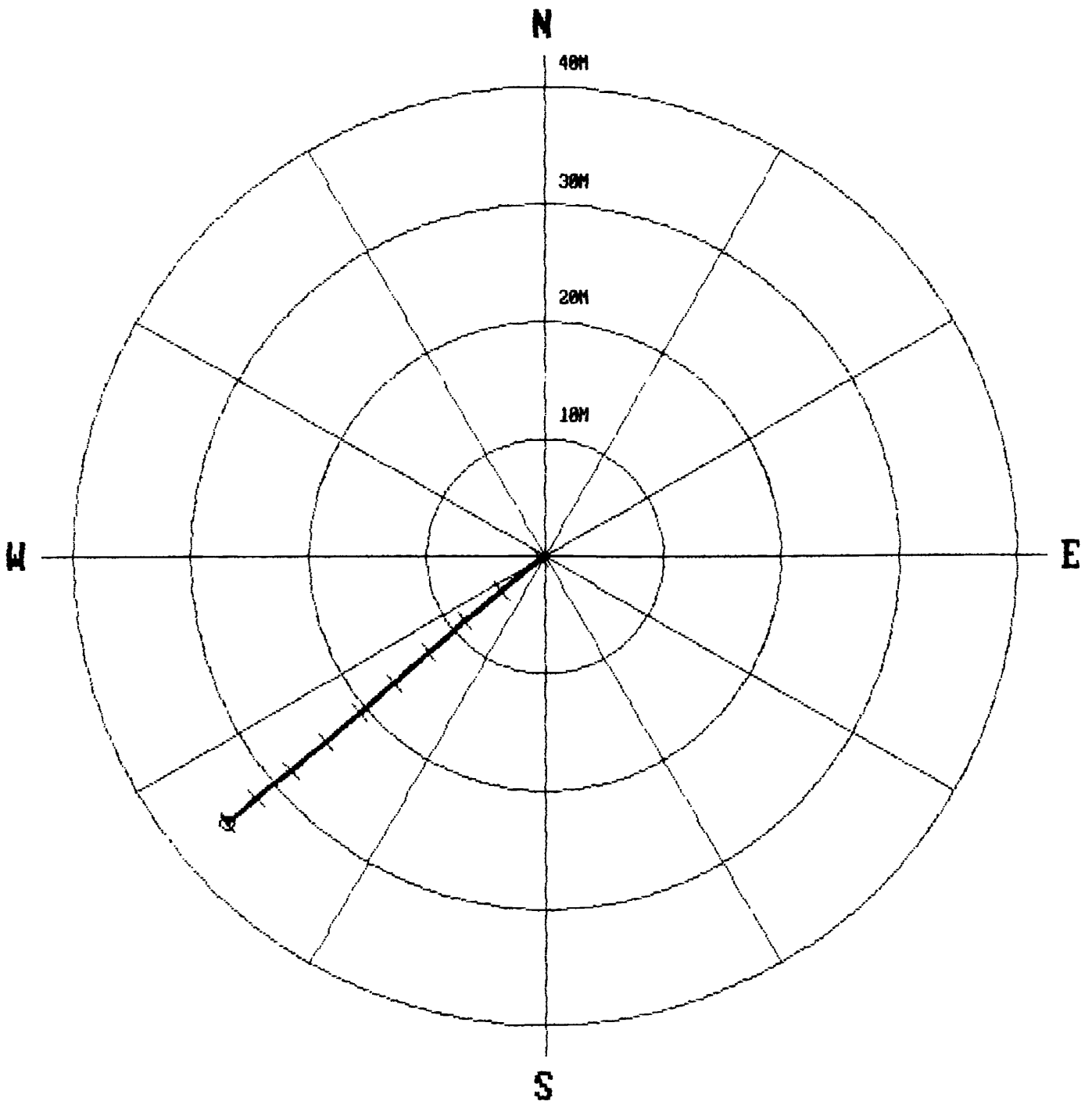
8

PLAN VIEW COMPU-LOG DEVIATION

CLIENT: PINE VALLEY COAL LTD.
 LOCATION: WILLOW CREEK PROJECT
 HOLE ID: WRH-96-009
 DATE OF LOG: 03/11/96
 PROBE: 9055A 58



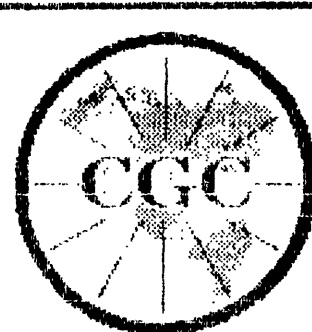
SCALE: 5 M/CM
 TRUE DEPTH: 54.53 M
 AZIMUTH: 230.1
 DISTANCE: 35.1 M
 + = 5 M INCR
 ○ = BOTTOM OF HOLE



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

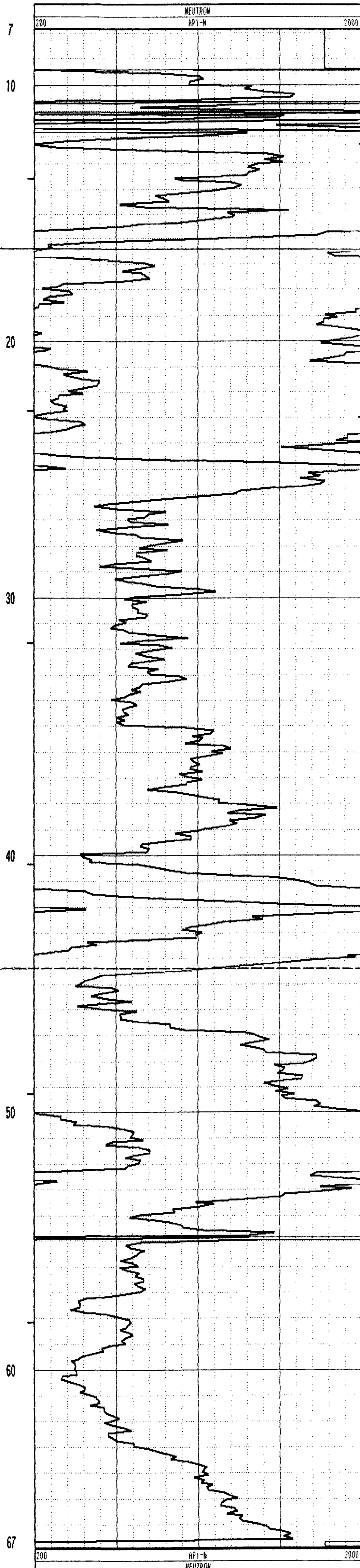
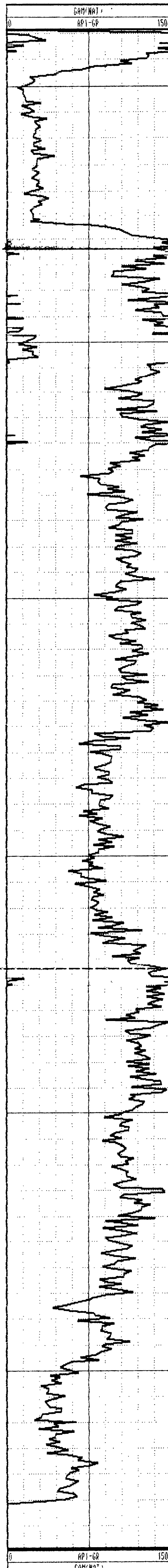
CLIENT : PINE VALLEY COAL LT HOLE ID. : WRH-96-009
 FIELD OFFICE : CALGARY, A.B DATE OF LOG : 03/11/96
 DATA FROM : J PROBE : 9055A 58
 MAG. DECL. : 23.000 DEPTH UNITS : METERS LOG 6

| CABLE DEPTH | TRUE DEPTH | NORTH DEV. | EAST DEV. | DISTANCE | AZIMUTH | SANG | SANGB |
|-------------|------------|------------|-----------|----------|---------|------|-------|
| 9.6 | 9.58 | -0.04 | -0.05 | 0.1 | 232.7 | 40.6 | 232.7 |
| 10.0 | 9.88 | -0.20 | -0.26 | 0.3 | 232.8 | 40.7 | 232.7 |
| 12.0 | 11.40 | -0.98 | -1.30 | 1.6 | 232.9 | 40.4 | 232.2 |
| 14.0 | 12.93 | -1.79 | -2.30 | 2.9 | 232.2 | 40.1 | 231.1 |
| 16.0 | 14.46 | -2.61 | -3.29 | 4.2 | 231.6 | 39.8 | 230.5 |
| 18.0 | 16.01 | -3.44 | -4.25 | 5.5 | 231.0 | 39.3 | 228.2 |
| 20.0 | 17.55 | -4.22 | -5.23 | 6.7 | 231.1 | 39.6 | 229.1 |
| 22.0 | 19.09 | -5.05 | -6.19 | 8.0 | 230.8 | 39.1 | 225.2 |
| 24.0 | 20.64 | -5.84 | -7.16 | 9.2 | 230.8 | 39.2 | 227.4 |
| 26.0 | 22.18 | -6.69 | -8.11 | 10.5 | 230.5 | 39.7 | 230.7 |
| 28.0 | 23.74 | -7.50 | -9.06 | 11.8 | 230.4 | 38.9 | 229.3 |
| 30.0 | 25.30 | -8.33 | -10.00 | 13.0 | 230.2 | 38.5 | 227.7 |
| 32.0 | 26.87 | -9.13 | -10.94 | 14.3 | 230.2 | 38.4 | 228.7 |
| 34.0 | 28.43 | -9.90 | -11.91 | 15.5 | 230.3 | 38.3 | 229.1 |
| 36.0 | 30.01 | -10.74 | -12.80 | 16.7 | 230.0 | 37.9 | 228.6 |
| 38.0 | 31.59 | -11.55 | -13.72 | 17.9 | 229.9 | 38.1 | 230.6 |
| 40.0 | 33.17 | -12.36 | -14.65 | 19.2 | 229.9 | 37.7 | 228.8 |
| 42.0 | 34.75 | -13.16 | -15.56 | 20.4 | 229.8 | 37.0 | 228.8 |
| 44.0 | 36.35 | -13.92 | -16.49 | 21.6 | 229.8 | 37.3 | 231.4 |
| 46.0 | 37.94 | -14.71 | -17.41 | 22.8 | 229.8 | 37.7 | 229.9 |
| 48.0 | 39.52 | -15.48 | -18.35 | 24.0 | 229.8 | 37.5 | 232.0 |
| 50.0 | 41.11 | -16.26 | -19.28 | 25.2 | 229.9 | 37.1 | 230.1 |
| 52.0 | 42.71 | -17.04 | -20.20 | 26.4 | 229.8 | 36.9 | 229.7 |
| 54.0 | 44.31 | -17.80 | -21.12 | 27.6 | 229.9 | 37.0 | 229.9 |
| 56.0 | 45.91 | -18.54 | -22.07 | 28.8 | 230.0 | 37.1 | 231.5 |
| 58.0 | 47.51 | -19.29 | -23.01 | 30.0 | 230.0 | 36.9 | 231.5 |
| 60.0 | 49.11 | -20.04 | -23.95 | 31.2 | 230.1 | 36.8 | 230.9 |
| 62.0 | 50.72 | -20.79 | -24.85 | 32.4 | 230.1 | 35.5 | 229.7 |
| 64.0 | 52.34 | -21.54 | -25.72 | 33.6 | 230.1 | 36.3 | 230.5 |
| 66.0 | 53.96 | -22.30 | -26.62 | 34.7 | 230.0 | 36.0 | 239.2 |
| 66.7 | 54.53 | -22.56 | -26.94 | 35.1 | 230.1 | 36.1 | 229.5 |



GAMMA-NEUTRON

| | | |
|--|-----------------------------|--|
| COMPANY | : PINE VALLEY COAL LTD. | OTHER SERVICES: |
| WELL | : WRH-96-009 | 9055 |
| LOCATION/FIELD | : WILLOW CREEK PROJECT | 9030 |
| COUNTY | : PINE PASS | |
| STATE | : BRITISH COLUMBIA | |
| SECTION | : TOWNSHIP | : 1 RANGE : |
| DATE | : 03/11/96 | PERMANENT DATUM : GROUND ELEVATIONS |
| DEPTH DRILLER | : 67.5 | ELEV. PERM. DATUM: GROUND KB : |
| LOG BOTTOM | : 67.00 | LOG MEASURED FROM: GL DI : |
| LOG TOP | : 8.00 | DRL MEASURED FROM: GL GL : |
| CASING DRILLER | : 3.7 | LOGGING UNIT : 8909 |
| CASING TYPE | : STEEL | FIELD OFFICE : CALGARY, A.B |
| CASING THICKNESS | : 0.65 | RECORDED BY : B. BOONE |
| BIT SIZE | : 14 | BOREHOLE FLUID : H2O/AIR FILE : ORIGINAL |
| MAGNETIC DECL. | : 23 | RM : TYPE : 9055A |
| MATRIX DENSITY | : 2.65 | RM TEMPERATURE : LOG : 4 |
| FLUID DENSITY | : 1.1 | MATRIX DELTA T : PLOT : SMOKY ? |
| NEUTRON MATRIX | : SANDSTONE FLUID DELTA T : | THRESH: 10000 |
| REMARKS | : | |
| OPEN HOLE | | |
| HOLE DEVIATED @ 50 DEG. | | |
| ALL SERVICES PROVIDED SUBJECT TO STANDARD TERMS AND CONDITIONS | | |



GAMMA-RES-DENSITY

COMPANY : PINE VALLEY COAL LTD.
 WELL : WRH-96-009
 LOCATION/FIELD : WILLOW CREEK PROJECT
 COUNTY : PINE PASS
 STATE : BRITISH COLUMBIA
 SECTION : TOWNSHIP : J RANGE :

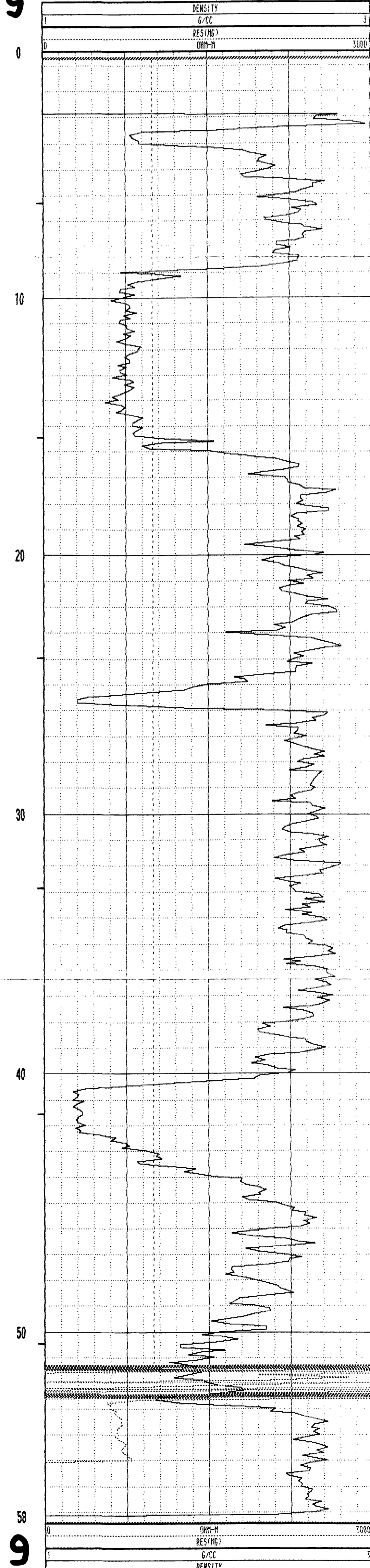
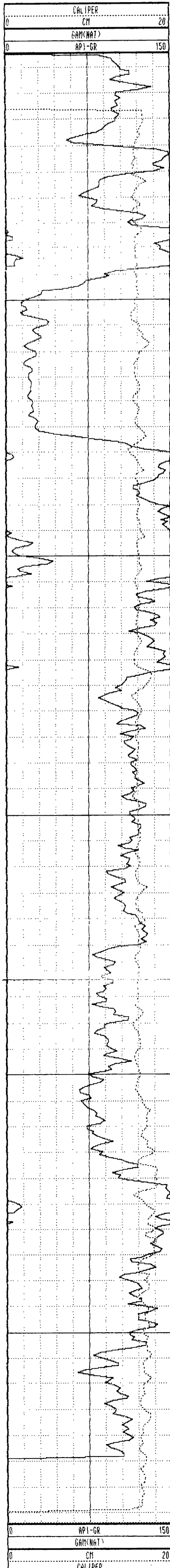
OTHER SERVICES:
 9055
 9030

DATE : 03/11/96 PERMANENT DATUM : GROUND ELEVATIONS
 DEPTH DRILLER : 67.5 ELEV. PERM. DATUM: GROUND KB :
 LOG BOTTOM : 57.50 LOG MEASURED FROM: GL DF :
 LOG TOP : 0.60 DRL MEASURED FROM: GL GL :

CASING DRILLER : 3.7 LOGGING UNIT : 8909
 CASING TYPE : STEEL FIELD OFFICE : CALGARY, A.B.
 CASING THICKNESS: 0.65 RECORDED BY : B. BOONE

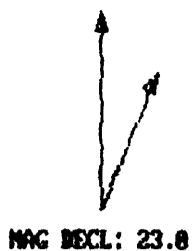
BIT SIZE : 14 BOREHOLE FLUID : H2O/AIR FILE : ORIGINAL
 MAGNETIC DECL. : 23 RM : TYPE : 9030AA
 MATRIX DENSITY : 2.65 RM TEMPERATURE : LOG : 5
 FLUID DENSITY : 1.1 MATRIX DELTA T : PLOT : SMOKY 3
 NEUTRON MATRIX : SANDSTONE FLUID DELTA T : THRESH: 10000

REMARKS :
 OPEN HOLE
 HOLE DEVIATED @ 50 DEG.
 ALL SERVICES PROVIDED SUBJECT TO STANDARD TERMS AND CONDITIONS

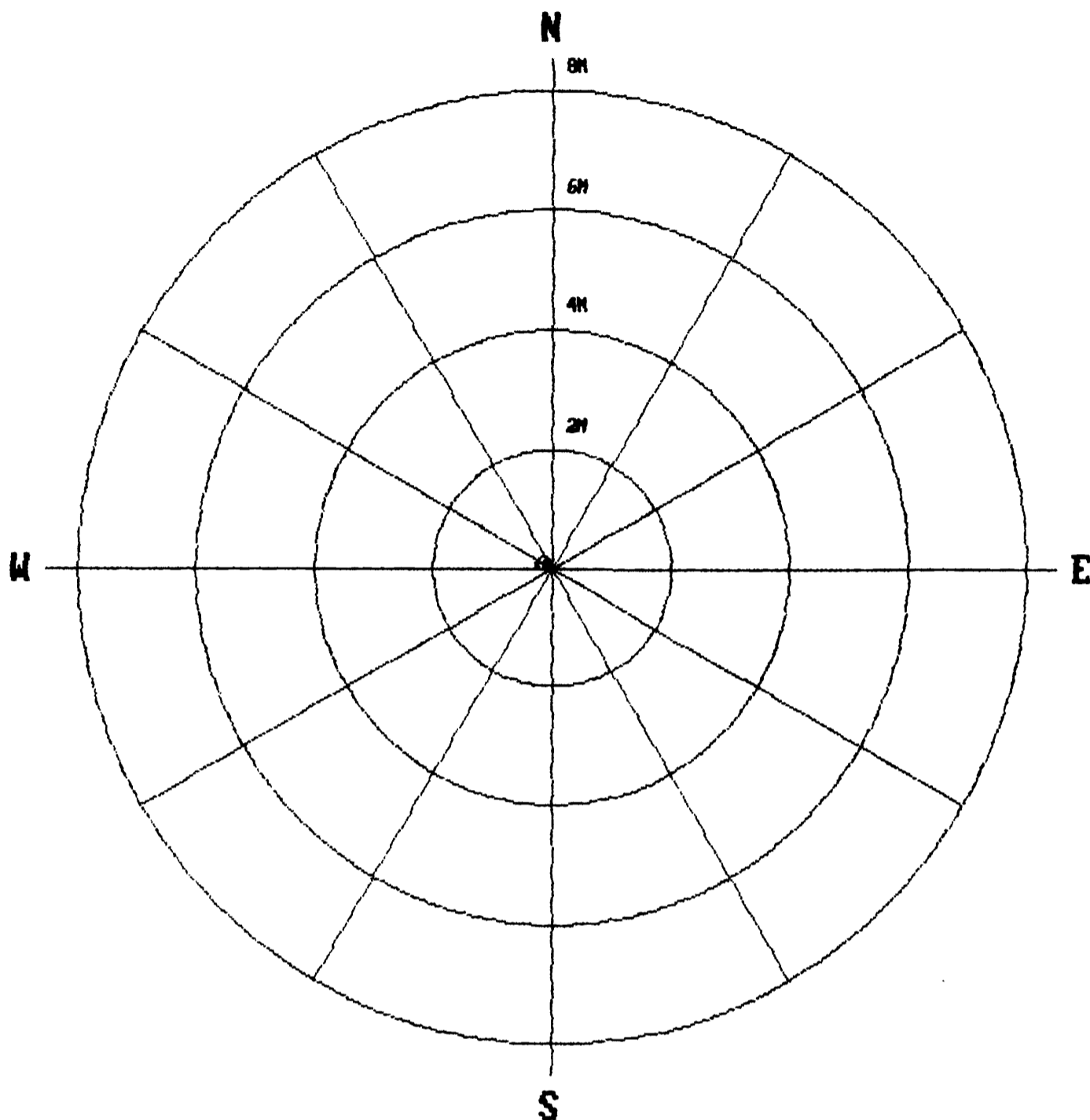


PLAN VIEW COMPU-LOG DEVIATION

CLIENT: PINE VALLEY COAL LTD.
 LOCATION: WILLOW CREEK PROJECT
 HOLE ID: WRH-96-010
 DATE OF LOG: 03/12/96
 PROBE: 9055A 58



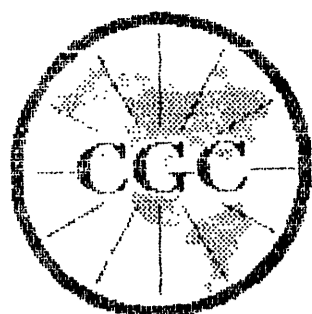
SCALE: 1 M/CM
 TRUE DEPTH: 42.10 M
 AZIMUTH: 302.0
 DISTANCE: 0.2 M
 + = 100 M INCR
 O = BOTTOM OF HOLE



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

CLIENT : PINE VALLEY COAL LT HOLE ID. : WRH-96-010
 FIELD OFFICE : CALGARY, A.B DATE OF LOG : 03/12/96
 DATA FROM : PROBE : 9055A , 58
 MAG. DECL. : 23.000 DEPTH UNITS : METERS LOG 2

| CABLE DEPTH | TRUE DEPTH | NORTH DEV. | EAST DEV. | DISTANCE | AZIMUTH | SANG | SANGB |
|-------------|------------|------------|-----------|----------|---------|------|-------|
| 2.9 | 2.90 | 0.00 | 0.00 | 0.0 | 12.8 | 0.5 | 12.8 |
| 3.3 | 3.30 | 0.00 | -0.00 | 0.0 | 353.0 | 0.2 | 36.1 |
| 5.3 | 5.30 | 0.01 | 0.00 | 0.0 | 14.4 | 0.1 | 339.2 |
| 7.3 | 7.30 | 0.02 | 0.00 | 0.0 | 7.5 | 0.3 | 343.6 |
| 9.3 | 9.30 | 0.02 | 0.00 | 0.0 | 5.6 | 0.1 | 44.4 |
| 11.3 | 11.30 | 0.03 | 0.00 | 0.0 | 7.8 | 0.1 | 7.3 |
| 13.3 | 13.30 | 0.03 | 0.00 | 0.0 | 5.4 | 0.2 | 344.6 |
| 15.3 | 15.30 | 0.04 | 0.00 | 0.0 | 1.6 | 0.3 | 332.7 |
| 17.3 | 17.30 | 0.05 | -0.00 | 0.0 | 355.1 | 0.2 | 335.8 |
| 19.3 | 19.30 | 0.05 | -0.00 | 0.1 | 354.9 | 0.1 | 29.5 |
| 21.3 | 21.30 | 0.06 | -0.01 | 0.1 | 352.4 | 0.3 | 329.0 |
| 23.3 | 23.30 | 0.06 | -0.01 | 0.1 | 349.5 | 0.2 | 339.2 |
| 25.3 | 25.30 | 0.07 | -0.02 | 0.1 | 345.1 | 0.2 | 307.7 |
| 27.3 | 27.30 | 0.07 | -0.02 | 0.1 | 342.9 | 0.2 | 293.6 |
| 29.3 | 29.30 | 0.08 | -0.03 | 0.1 | 337.0 | 0.3 | 275.2 |
| 31.3 | 31.30 | 0.08 | -0.05 | 0.1 | 330.3 | 0.3 | 283.3 |
| 33.3 | 33.30 | 0.08 | -0.06 | 0.1 | 324.4 | 0.3 | 279.8 |
| 35.3 | 35.30 | 0.08 | -0.07 | 0.1 | 318.4 | 0.5 | 290.5 |
| 37.3 | 37.30 | 0.09 | -0.09 | 0.1 | 312.7 | 0.5 | 284.1 |
| 39.3 | 39.30 | 0.09 | -0.11 | 0.1 | 308.3 | 0.5 | 254.6 |
| 41.3 | 41.30 | 0.09 | -0.13 | 0.2 | 303.5 | 0.8 | 274.7 |
| 42.1 | 42.10 | 0.09 | -0.14 | 0.2 | 302.0 | 0.7 | 288.0 |

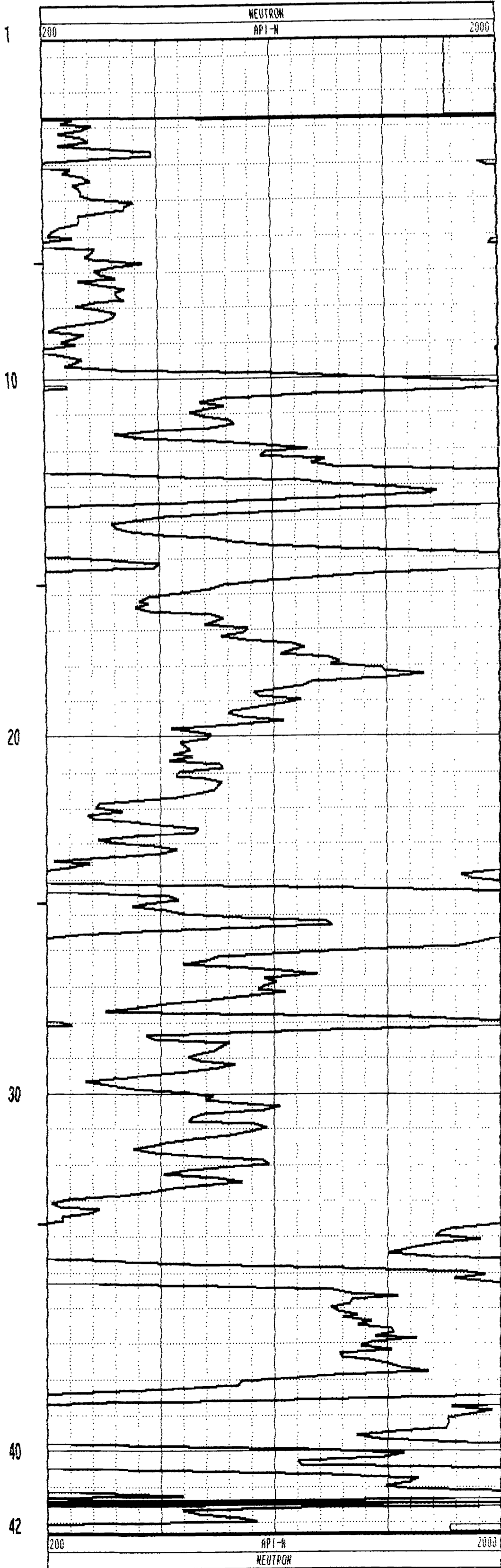
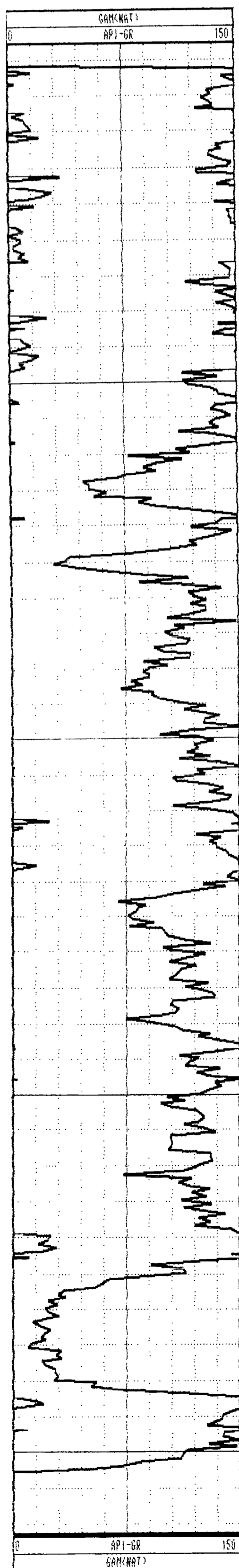


Century GEOPHYSICAL CORP.

GAMMA-NEUTRON

| | | | |
|---------------------|---------------------------|--------------------|---------------------------|
| COMPANY | : PINE VALLEY COAL LTD. | OTHER SERVICES: | |
| WELL | : WRH-96-010 | 9055 | |
| LOCATION/FIELD | : WILLOW CREEK PROJECT | 9030 | |
| COUNTY | : PINE PASS | | |
| STATE | : BRITISH COLUMBIA | | |
| SECTION | : TOWNSHIP | RANGE | : |
| DATE | : 03/12/96 | PERMANENT DATUM | : GROUND ELEVATIONS |
| DEPTH DRILLER | : 43 | ELEV. PERM. DATUM: | GROUND KB : |
| LOG BOTTOM | : 42.40 | LOG MEASURED FROM: | GL DF : |
| LOG TOP | : 1.30 | DRL MEASURED FROM: | GL CL : |
| CASING DRILLER | : - | LOGGING UNIT | : 8909 |
| CASING TYPE | : | FIELD OFFICE | : CALGARY, A.B |
| CASING THICKNESS: | 0.65 | RECORDED BY | : B. BOONE |
| DIT SIZE | : 14 | BOREHOLE FLUID | : H2O/AIR FILE : ORIGINAL |
| MAGNETIC DECL. | : 23 | RM | : TYPE : 9055A |
| MATRIX DENSITY | : 2.65 | RM TEMPERATURE | : LOG : 0 |
| FLUID DENSITY | : 1.1 | MATRIX DELTA T | : PLOT : SMOKY 7 |
| NEUTRON MATRIX | : SANDSTONE FLUID DELTA T | : | THRESH: 10000 |
| REMARKS | : | | |
| OPEN HOLE | | | |
| VERTICAL, CORE HOLE | | | |

ALL SERVICES PROVIDED SUBJECT TO STANDARD TERMS AND CONDITIONS



GAMMA-RES-DENSITY

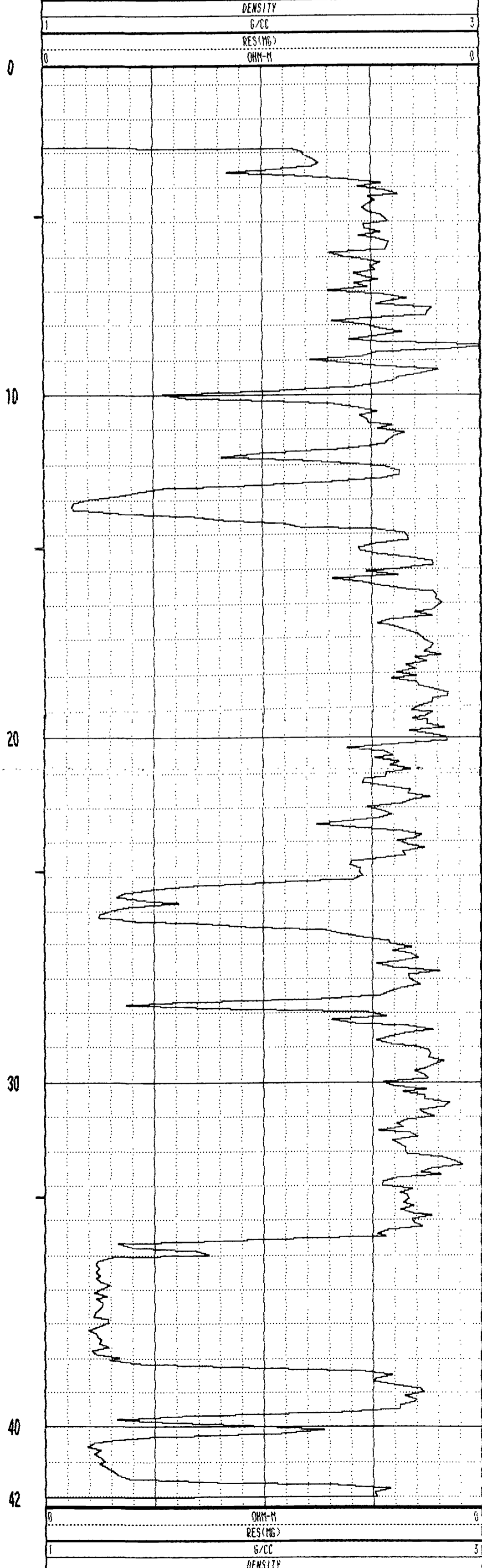
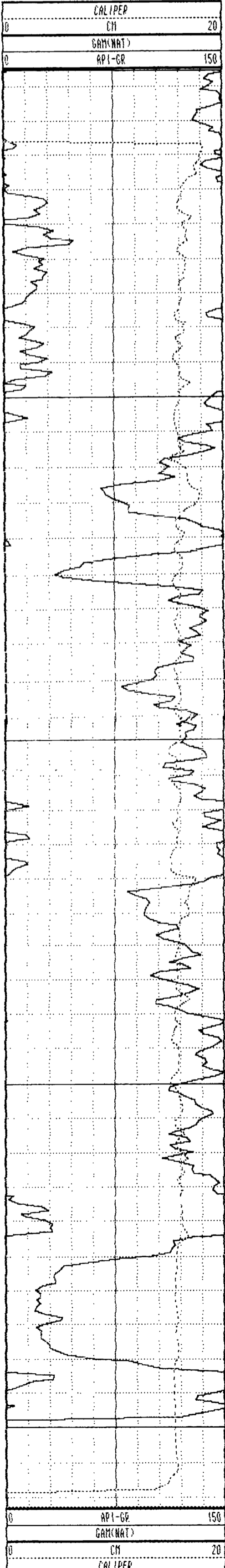
COMPANY : PINE VALLEY COAL LTD.
 WELL : WRH-96-010
 LOCATION/FIELD : WILLOW CREEK PROJECT
 COUNTY : PINE PASS
 STATE : BRITISH COLUMBIA
 SECTION : TOWNSHIP : RANGE :

OTHER SERVICES:
 9055
 9030

DATE : 03/12/96 PERMANENT DATUM : GROUND ELEVATIONS
 DEPTH DRILLER : 43 ELEV. PERM. DATUM: GROUND KB :
 LOG BOTTOM : 42.40 LOG MEASURED FROM: GL DF :
 LOG TOP : 0.60 DRL MEASURED FROM: GL GL :
 CASING DRILLER : - LOGGING UNIT : 8909
 CASING TYPE : FIELD OFFICE : CALGARY, A.B.
 CASING THICKNESS: 0.65 RECORDED BY : B. BOONE

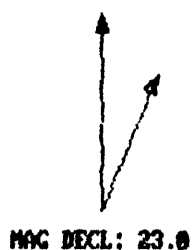
BIT SIZE : 14 BOREHOLE FLUID : H2O/AIR FILE : ORIGINAL
 MAGNETIC DECL. : 23 RM : TYPE : 9030AA
 MATRIX DENSITY : 2.65 RM TEMPERATURE : LOG : 1
 FLUID DENSITY : 1.1 MATRIX DELTA T : PLOT : SMDKV 3
 NEUTRON MATRIX : SANDSTONE FLUID DELTA T : THRESH: 10000

REMARKS :
 OPEN HOLE
 VERTICAL, CORE HOLE
 ALL SERVICES PROVIDED SUBJECT TO STANDARD TERMS AND CONDITIONS

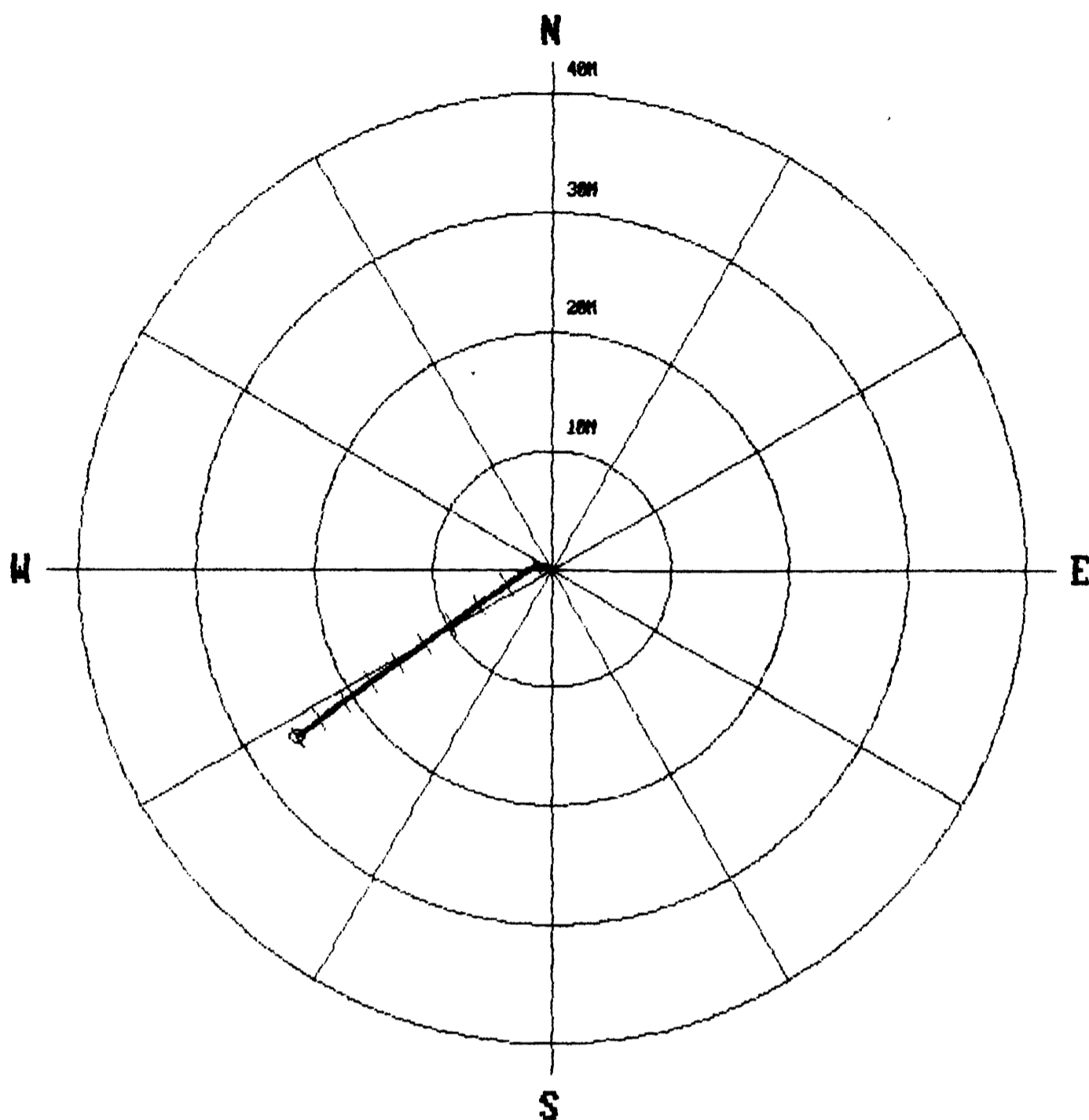


PLAN VIEW COMPU-LOG DEVIATION

CLIENT: PINE VALLEY COAL LTD.
 LOCATION: WILLOW CREEK PROJECT
 HOLE ID: WRH-96-011
 DATE OF LOG: 03/10/96
 PROBE: 9055A 58



SCALE: 5 M/CM
 TRUE DEPTH: 49.54 M
 AZIMUTH: 236.5
 DISTANCE: 25.7 M
 + = 5 M INCR
 O = BOTTOM OF HOLE



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

CLIENT : PINE VALLEY COAL LT HOLE ID. : WRH-96-011
 FIELD OFFICE : CALGARY, A.B DATE OF LOG : 03/10/96
 DATA FROM : PROBE : 9055A 58
 MAG. DECL. : 23.000 DEPTH UNITS : METERS LOG 0

| CABLE DEPTH | TRUE DEPTH | NORTH DEV. | EAST DEV. | DISTANCE | AZIMUTH | SANG | SANGB |
|-------------|------------|------------|-----------|----------|---------|------|-------|
| 2.9 | 2.89 | 0.03 | -0.04 | 0.1 | 312.2 | 31.2 | 312.2 |
| 3.3 | 3.23 | 0.15 | -0.21 | 0.3 | 306.4 | 31.1 | 301.0 |
| 5.3 | 4.94 | 0.26 | -1.22 | 1.2 | 282.1 | 31.2 | 257.8 |
| 7.3 | 6.65 | -0.15 | -2.16 | 2.2 | 266.0 | 31.0 | 240.8 |
| 9.3 | 8.37 | -0.71 | -3.02 | 3.1 | 256.8 | 30.5 | 236.6 |
| 11.3 | 10.09 | -1.29 | -3.85 | 4.1 | 251.5 | 30.4 | 234.4 |
| 13.3 | 11.82 | -1.88 | -4.67 | 5.0 | 248.1 | 30.2 | 236.5 |
| 15.3 | 13.55 | -2.46 | -5.49 | 6.0 | 245.9 | 30.1 | 234.3 |
| 17.3 | 15.28 | -3.03 | -6.30 | 7.0 | 244.3 | 29.6 | 233.7 |
| 19.3 | 17.02 | -3.61 | -7.11 | 8.0 | 243.1 | 29.6 | 233.6 |
| 21.3 | 18.76 | -4.18 | -7.90 | 8.9 | 242.1 | 29.3 | 234.1 |
| 23.3 | 20.51 | -4.75 | -8.70 | 9.9 | 241.3 | 29.1 | 233.7 |
| 25.3 | 22.26 | -5.33 | -9.47 | 10.9 | 240.6 | 28.8 | 234.1 |
| 27.3 | 24.00 | -5.91 | -10.26 | 11.8 | 240.0 | 29.7 | 232.2 |
| 29.3 | 25.74 | -6.47 | -11.06 | 12.8 | 239.7 | 29.6 | 235.3 |
| 31.3 | 27.48 | -7.05 | -11.86 | 13.8 | 239.3 | 29.4 | 236.0 |
| 33.3 | 29.23 | -7.64 | -12.63 | 14.8 | 238.8 | 29.4 | 222.4 |
| 35.3 | 30.97 | -8.23 | -13.43 | 15.7 | 238.5 | 29.4 | 235.0 |
| 37.3 | 32.71 | -8.80 | -14.21 | 16.7 | 238.2 | 29.1 | 232.8 |
| 39.3 | 34.46 | -9.37 | -15.00 | 17.7 | 238.0 | 29.0 | 233.6 |
| 41.3 | 36.22 | -9.94 | -15.77 | 18.6 | 237.8 | 28.5 | 233.3 |
| 43.3 | 37.97 | -10.49 | -16.55 | 19.6 | 237.6 | 28.4 | 234.2 |
| 45.3 | 39.73 | -11.04 | -17.33 | 20.5 | 237.5 | 28.3 | 233.8 |
| 47.3 | 41.50 | -11.60 | -18.08 | 21.5 | 237.3 | 28.0 | 232.9 |
| 49.3 | 43.26 | -12.16 | -18.84 | 22.4 | 237.1 | 27.9 | 233.7 |
| 51.3 | 45.04 | -12.71 | -19.59 | 23.3 | 237.0 | 27.4 | 230.2 |
| 53.3 | 46.80 | -13.30 | -20.30 | 24.3 | 236.8 | 28.6 | 207.9 |
| 55.3 | 48.57 | -13.88 | -21.04 | 25.2 | 236.6 | 28.0 | 235.4 |
| 56.4 | 49.54 | -14.18 | -21.46 | 25.7 | 236.5 | 28.0 | 235.7 |

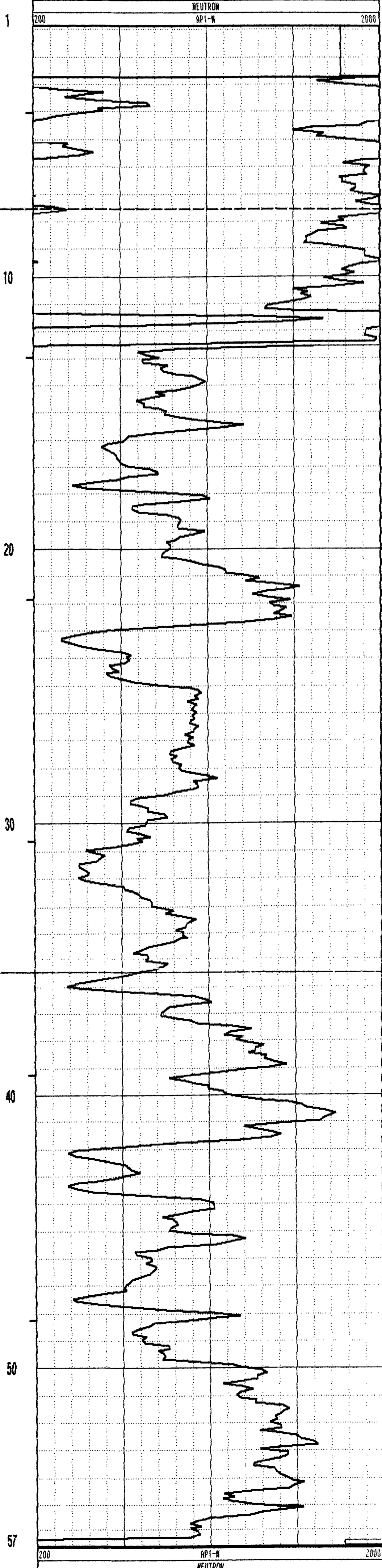
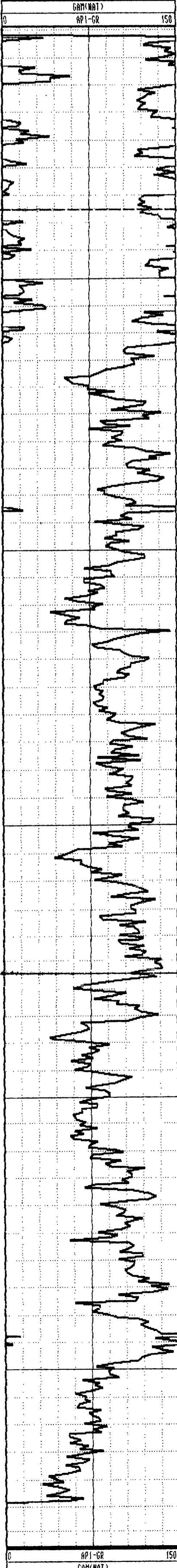


Century GEOPHYSICAL CORP.

GAMMA-NEUTRON

| | | |
|-----------------------|-----------------------------|--|
| COMPANY | : PINE VALLEY COAL LTD. | OTHER SERVICES: |
| WELL | : WRH-96-011 | 9055 |
| LOCATION/FIELD | : WILLOW CREEK PROJECT | 9030 |
| COUNTY | : PINE PASS | |
| STATE | : BRITISH COLUMBIA | |
| SECTION | : TOWNSHIP : RANGE : | |
| DATE | : 03/10/96 | PERMANENT DATUM : GROUND ELEVATIONS |
| DEPTH DRILLER | : 55 | ELEV. PERM. DATUM: GROUND KB : |
| LOG BOTTOM | : 56.70 | LOG MEASURED FROM: GL DF : |
| LOG TOP | : 1.30 | DRL MEASURED FROM: GL GL : |
| CASING DRILLER | : 2.3 | LOGGING UNIT : 8909 |
| CASING TYPE | : PUC | FIELD OFFICE : CALGARY, A.B |
| CASING THICKNESS: | 0.65 | RECORDED BY : B. BOONE |
| BIT SIZE | : 14 | BOREHOLE FLUID : H2O/AIR FILE : ORIGINAL |
| MAGNETIC DECL. | : 23 | RM : TYPE : 9055A |
| MATRIX DENSITY | : 2.65 | RM TEMPERATURE : LOG : 8 |
| FLUID DENSITY | : 1.1 | MATRIX DELTA T : PLOT : SMOKY 7 |
| NEUTRON MATRIX | : SANDSTONE FLUID DELTA T : | THRESH: 10000 |
| REMARKS | : | |
| OPEN HOLE | : | |
| HOLE DEVIATED 60 DEG. | : | |

ALL SERVICES PROVIDED SUBJECT TO STANDARD TERMS AND CONDITIONS



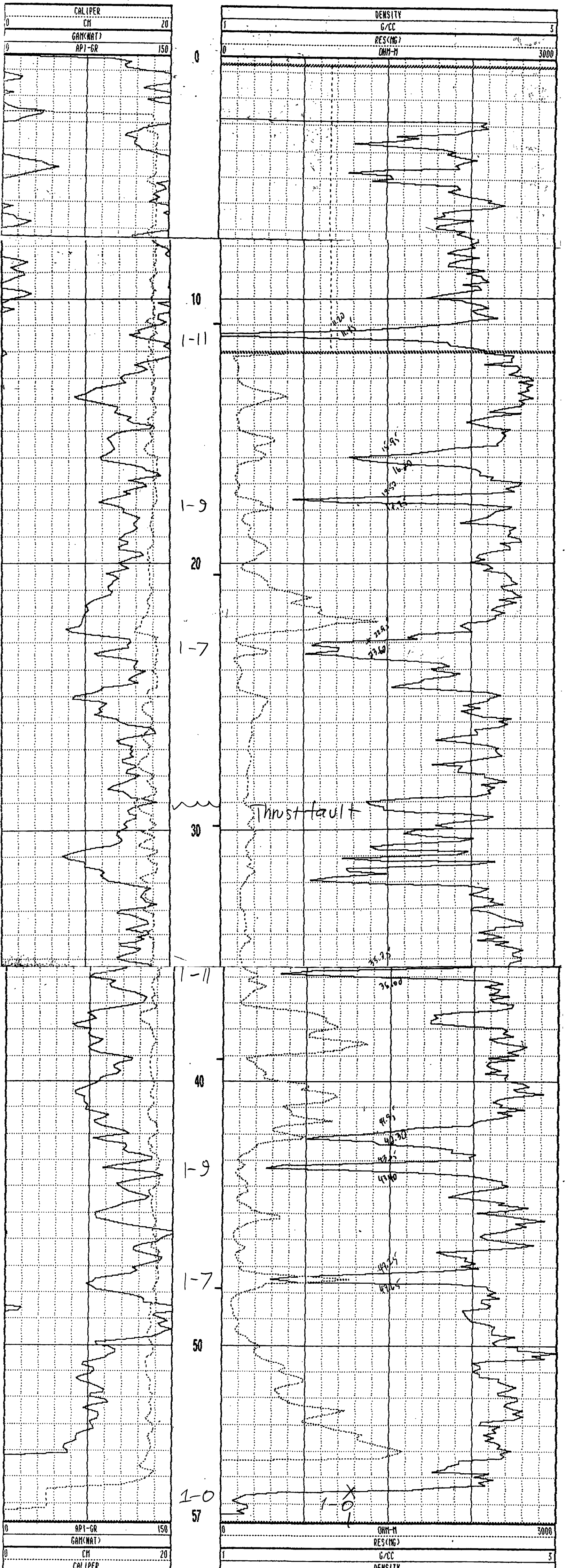
WRH 96011

GAMMA-RES-DENSITY

| | | |
|---------------------------------------|-----------------------------|-----------------|
| COMPANY : PINE VALLEY COAL LTD. | OTHER SERVICES: 9055 | |
| WELL : WRH-96-011 | 9030 | |
| LOCATION/FIELD : WILLOW CREEK PROJECT | | |
| COUNTY : PINE PASS | | |
| STATE : BRITISH COLUMBIA | | |
| SECTION : TOWNSHIP : RANGE : | | |
| DATE : 03/10/96 | PERMANENT DATUM : GROUND | ELEVATIONS |
| DEPTH DRILLER : SS | ELEV. PERM. DATUM: GROUND | KB : |
| LOG BOTTOM : 56.80 | LOG MEASURED FROM: GL | DF : |
| LOG TOP : 0.60 | DRL MEASURED FROM: GL | GL : |
| CASING DRILLER : 2.3 | LOGGING UNIT : 8909 | |
| CASING TYPE : PVC | FIELD OFFICE : CALGARY, A.B | |
| CASING THICKNESS: 0.65 | RECORDED BY : B. BOONE | |
| BIT SIZE : 14 | BOREHOLE FLUID : H2O/AIR | FILE : ORIGINAL |
| MAGNETIC DECL. : 23 | RM | TYPE : 9030AA |
| MATRIX DENSITY : 2.65 | RM TEMPERATURE : | LOG : 9 |
| FLUID DENSITY : 1.1 | MATRIX DELTA T : | PLOT : SMOXY 3 |
| NEUTRON MATRIX : SANDSTONE | FLUID DELTA T : | THRESH: 10000 |
| REMARKS : | | |
| OPEN HOLE | | |
| HOLE DEVIATED 60 DEG. | | |

ALL SERVICES PROVIDED SUBJECT TO STANDARD TERMS AND CONDITIONS.

WRH 96011

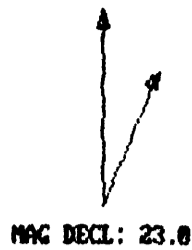


13200

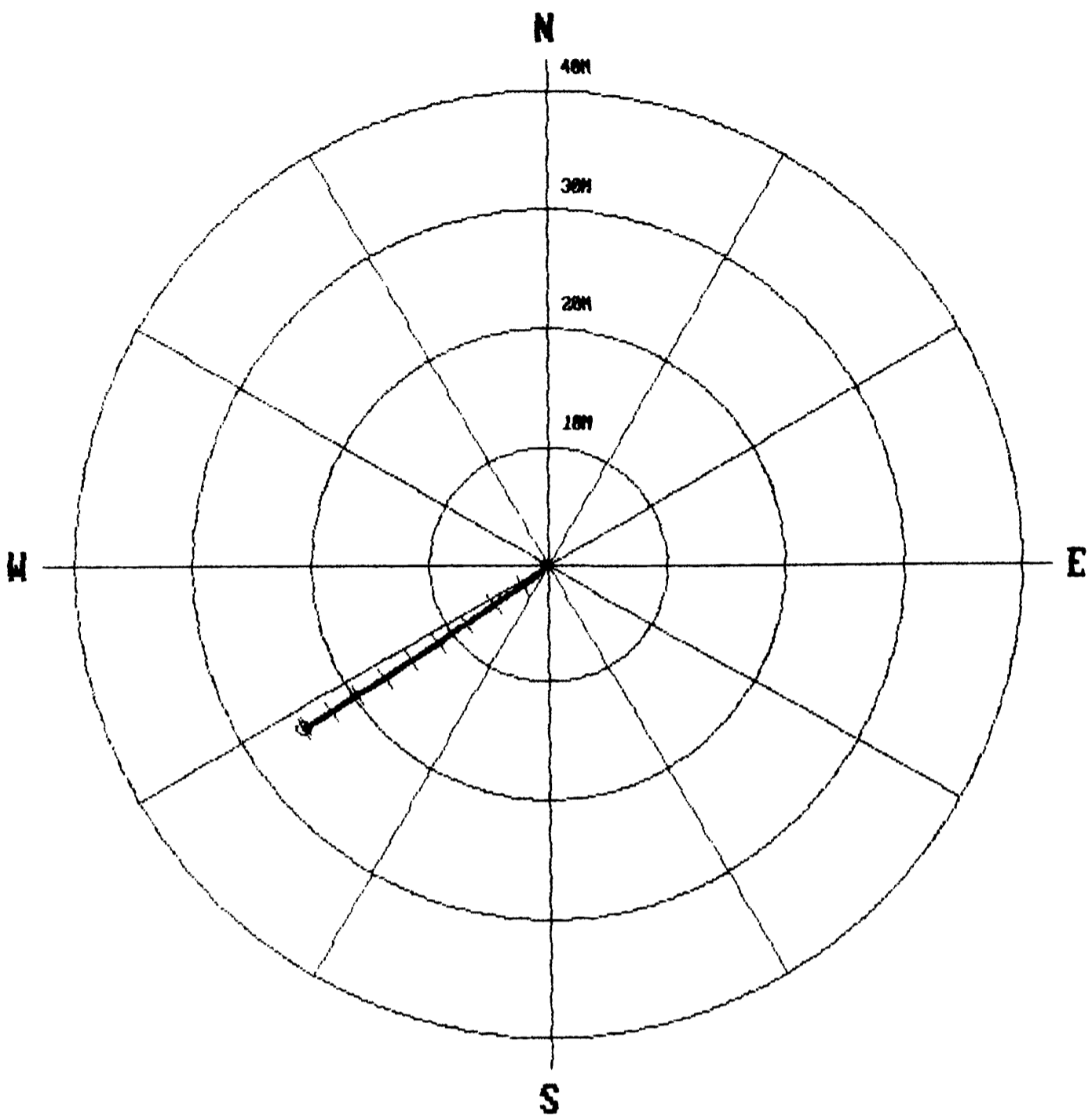
96-11

PLAN VIEW COMPU-LOG DEVIATION

CLIENT: PINE VALLEY COAL LTD.
 LOCATION: WILLOW CREEK PROJECT
 HOLE ID: WRH-96-012
 DATE OF LOG: 03/11/96
 PROBE: 9055A 58



SCALE: 5 M/CM
 TRUE DEPTH: 55.36 M
 AZIMUTH: 236.3
 DISTANCE: 24.8 M
 + = 5 M INCR
 O = BOTTOM OF HOLE



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

| | | | |
|--------------|-----------------------|-------------|----------------|
| CLIENT | : PINE VALLEY COAL LT | HOLE ID. | : WRH-96-012 |
| FIELD OFFICE | : CALGARY, A.B | DATE OF LOG | : 03/11/96 |
| DATA FROM | : | PROBE | : 9055A 58 |
| MAG. DECL. | : 23.000 | DEPTH UNITS | : METERS LOG 3 |

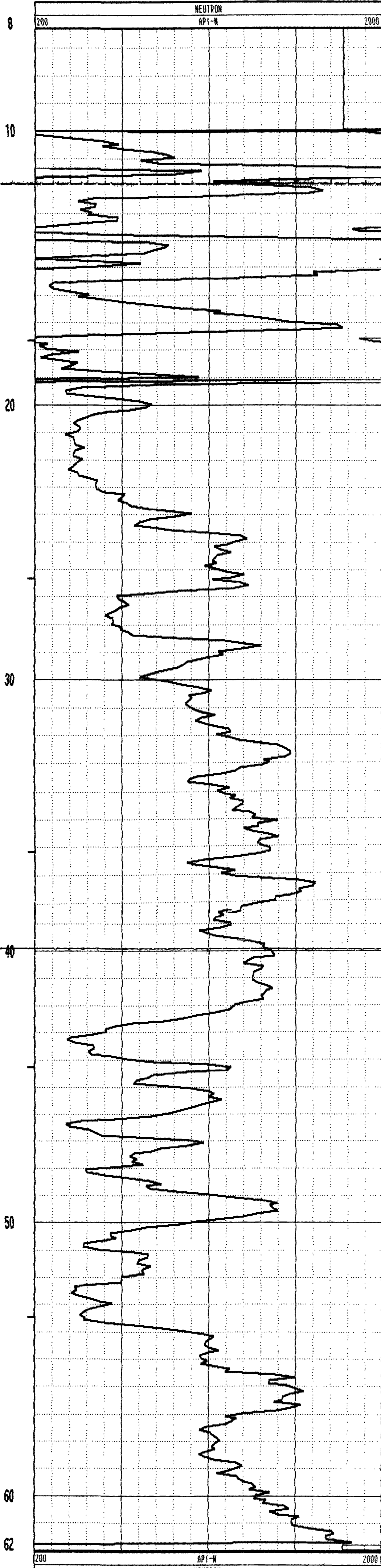
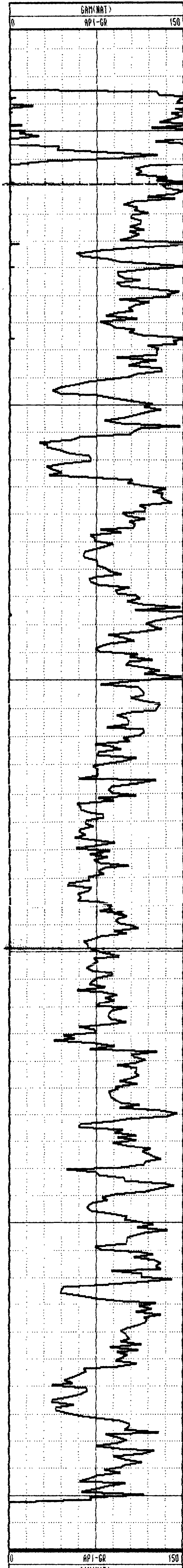
| CABLE DEPTH | TRUE DEPTH | NORTH DEV. | EAST DEV. | DISTANCE | AZIMUTH | SANG | SANGB |
|-------------|------------|------------|-----------|----------|---------|------|-------|
| 10.2 | 10.19 | -0.03 | -0.04 | 0.1 | 233.8 | 30.1 | 233.8 |
| 10.6 | 10.53 | -0.16 | -0.19 | 0.2 | 229.7 | 29.9 | 230.9 |
| 12.6 | 12.27 | -0.80 | -0.95 | 1.2 | 229.7 | 29.6 | 230.5 |
| 14.6 | 14.01 | -1.37 | -1.72 | 2.2 | 231.4 | 29.3 | 240.5 |
| 16.6 | 15.73 | -1.93 | -2.55 | 3.2 | 232.9 | 30.9 | 238.2 |
| 18.6 | 17.46 | -2.51 | -3.37 | 4.2 | 233.4 | 30.1 | 235.6 |
| 20.6 | 19.19 | -3.08 | -4.19 | 5.2 | 233.7 | 29.8 | 234.4 |
| 22.6 | 20.93 | -3.65 | -5.01 | 6.2 | 233.9 | 29.7 | 238.6 |
| 24.6 | 22.66 | -4.21 | -5.83 | 7.2 | 234.2 | 30.0 | 233.3 |
| 26.6 | 24.40 | -4.77 | -6.65 | 8.2 | 234.4 | 29.7 | 235.7 |
| 28.6 | 26.13 | -5.33 | -7.47 | 9.2 | 234.5 | 29.7 | 234.5 |
| 30.6 | 27.87 | -5.89 | -8.28 | 10.2 | 234.6 | 29.3 | 236.5 |
| 32.6 | 29.61 | -6.44 | -9.09 | 11.1 | 234.7 | 29.4 | 236.5 |
| 34.6 | 31.36 | -6.99 | -9.90 | 12.1 | 234.8 | 29.3 | 235.6 |
| 36.6 | 33.11 | -7.52 | -10.72 | 13.1 | 235.0 | 29.0 | 233.7 |
| 38.6 | 34.86 | -8.06 | -11.52 | 14.1 | 235.0 | 28.8 | 235.2 |
| 40.6 | 36.61 | -8.58 | -12.32 | 15.0 | 235.1 | 28.4 | 236.7 |
| 42.6 | 38.37 | -9.10 | -13.12 | 16.0 | 235.3 | 28.4 | 236.7 |
| 44.6 | 40.13 | -9.62 | -13.92 | 16.9 | 235.3 | 28.3 | 239.9 |
| 46.6 | 41.89 | -10.12 | -14.73 | 17.9 | 235.5 | 28.0 | 237.3 |
| 48.6 | 43.66 | -10.62 | -15.52 | 18.8 | 235.6 | 27.8 | 238.3 |
| 50.6 | 45.42 | -11.13 | -16.30 | 19.7 | 235.7 | 28.0 | 227.6 |
| 52.6 | 47.19 | -11.63 | -17.08 | 20.7 | 235.8 | 27.6 | 238.6 |
| 54.6 | 48.96 | -12.12 | -17.88 | 21.6 | 235.9 | 28.0 | 235.4 |
| 56.6 | 50.74 | -12.60 | -18.66 | 22.5 | 236.0 | 27.4 | 238.9 |
| 58.6 | 52.52 | -13.06 | -19.45 | 23.4 | 236.1 | 27.3 | 233.5 |
| 60.6 | 54.29 | -13.54 | -20.24 | 24.3 | 236.2 | 27.5 | 252.7 |
| 61.8 | 55.36 | -13.79 | -20.67 | 24.8 | 236.3 | 27.5 | 236.1 |



Century GEOPHYSICAL CORP.

GAMMA-NEUTRON

| | | | |
|--|---------------------------|--------------------|---------------------------|
| COMPANY | : PINE VALLEY COAL LTD. | OTHER SERVICES: | |
| WELL | : WRH-96-012 | 9055 | |
| LOCATION/FIELD | : WILLOW CREEK PROJECT | 9030 | |
| COUNTY | : PINE PASS | | |
| STATE | : BRITISH COLUMBIA | | |
| SECTION | : TOWNSHIP | RANGE | : |
| DATE | : 03/11/96 | PERMANENT DATUM | : GROUND ELEVATIONS |
| DEPTH DRILLER | : 62 | ELEV. PERM. DATUM: | GROUND KB : |
| LOG BOTTOM | : 62.10 | LOG MEASURED FROM: | GL DF : |
| LOG TOP | : 8.60 | DRL MEASURED FROM: | GL GL : |
| CASING DRILLER | : 2.4 | LOGGING UNIT | : 8909 |
| CASING TYPE | : PVC | FIELD OFFICE | : CALGARY, A.B |
| CASING THICKNESS: | 0.65 | RECORDED BY | : B. BOONE |
| BIT SIZE | : 14 | BOREHOLE FLUID | : H2O/AIR FILE : ORIGINAL |
| MAGNETIC DECL. | : 23 | RM | : TYPE : 9055A |
| MATRIX DENSITY | : 2.65 | RM TEMPERATURE | : LOG : 1 |
| FLUID DENSITY | : 1.1 | MATRIX DELTA T | : PLOT : SMOKY 7 |
| NEUTRON MATRIX | : SANDSTONE FLUID DELTA T | : | THRESH: 10000 |
| REMARKS | : | | |
| OPEN HOLE | | | |
| HOLE DEVIATED @ 60 DEG. | | | |
| ALL SERVICES PROVIDED SUBJECT TO STANDARD TERMS AND CONDITIONS | | | |



GAMMA-RES-DENSITY

COMPANY : PINE VALLEY COAL LTD.
 WELL : WRH-96-012
 LOCATION/FIELD : WILLOW CREEK PROJECT
 COUNTY : PINE PASS
 STATE : BRITISH COLUMBIA
 SECTION : TOWNSHIP : RANGE :

OTHER SERVICES:
 9055
 9030

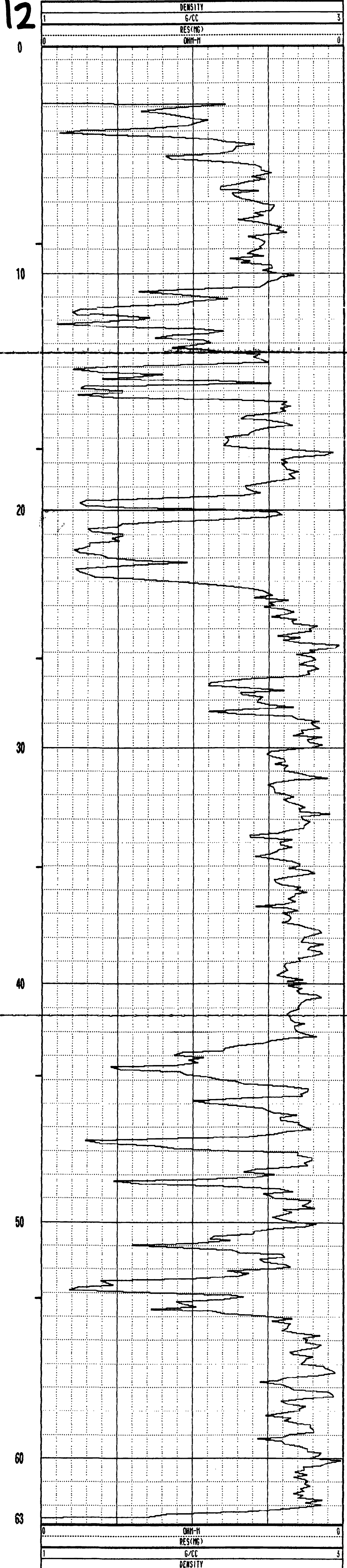
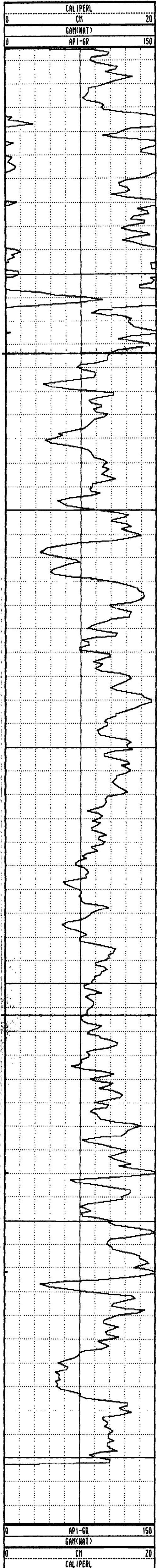
DATE : 03/11/96 PERMANENT DATUM : GROUND ELEVATIONS
 DEPTH DRILLER : 62 ELEV. PERM. DATUM: GROUND KB :
 LOG BOTTOM : 62.90 LOG MEASURED FROM: GL DF :
 LOG TOP : 0.60 DRL MEASURED FROM: CL CL :

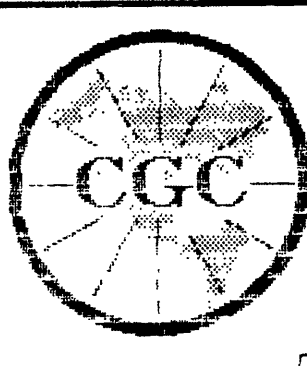
CASING DRILLER : 2.4 LOGGING UNIT : 8909
 CASING TYPE : PUC FIELD OFFICE : CALGARY, A.B
 CASING THICKNESS: 0.65 RECORDED BY : B. BOONE

BIT SIZE : 14 BOREHOLE FLUID : H2O/AIR FILE : ORIGINAL
 MAGNETIC DECL. : 23 RM : TYPE : 9030AA
 MATRIX DENSITY : 2.65 RM TEMPERATURE : LOG : 0
 FLUID DENSITY : 1.1 MATRIX DELTA T : PLOT : SMOKY 3
 NEUTRON MATRIX : SANDSTONE FLUID DELTA T : THRESH: 10000
 REMARKS :

OPEN HOLE
 HOLE DEVIATED @ 60 DEG.

ALL SERVICES PROVIDED SUBJECT TO STANDARD TERMS AND CONDITIONS



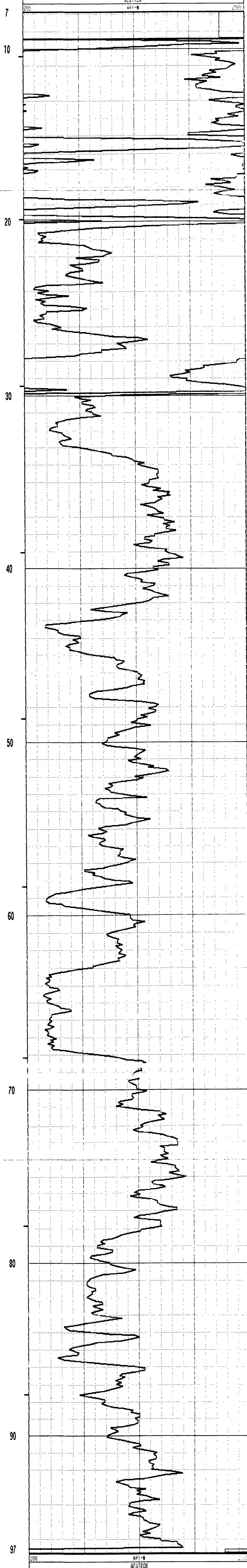
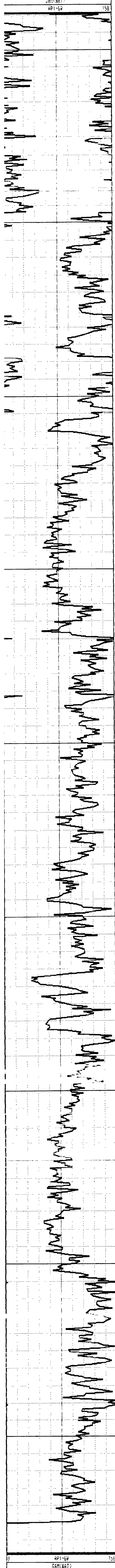


Century GEOPHYSICAL CORP.

GAMMA-NEUTRON

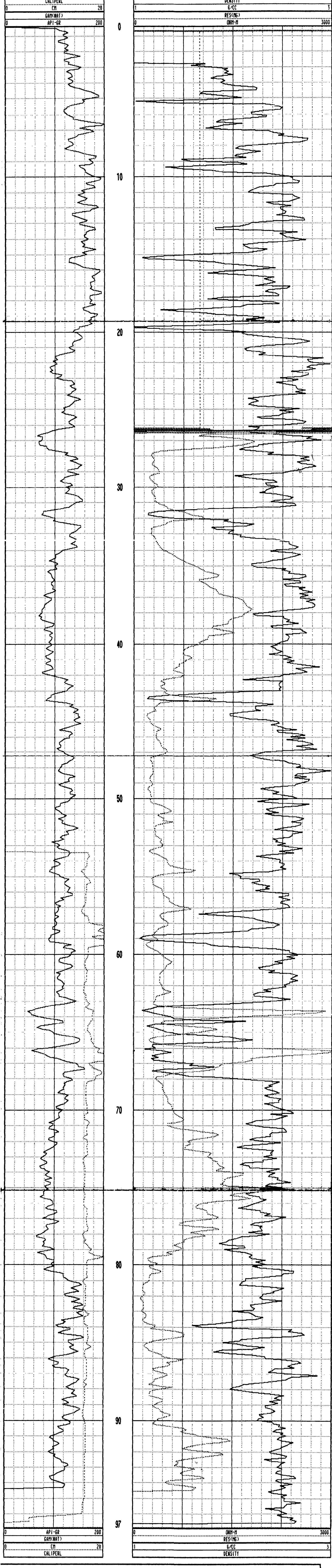
| | | | |
|--------------------------|---------------------------|-------------------|-----------------------------------|
| COMPANY | : PINE VALLEY COAL LTD. | OTHER SERVICES: | |
| WELL | : WRH-96-013.1 | 9055 | |
| LOCATION/FIELD | : WILLOW CREEK PROJECT | 9030 | |
| COUNTY | : PINE PASS | | |
| STATE | : BRITISH COLUMBIA | | |
| SECTION | : TOWNSHIP | RANGE | : |
| DATE | : 03/23/96 | PERMANENT DATUM | : GROUND ELEVATIONS |
| DEPTH DRILLER | : 97 | ELEV. PERM. DATUM | : GROUND KB |
| LOG BOTTOM | : 96.90 | LOG MEASURED FROM | : GL DF |
| LOG TOP | : 8.00 | DRL MEASURED FROM | : GL CL |
| CASING DRILLER | : 4 | LOGGING UNIT | : 9603 |
| CASING TYPE | : PVC | FIELD OFFICE | : CALGARY, A.B |
| CASING THICKNESS | : 0.65 | RECORDED BY | : B.DOONE |
| BIT SIZE | : 14 | BORFHOLE FLUID | : H2O/AIR FILE : PROCESSED |
| MAGNETIC DECL. | : 23 | RM | : RM TEMPERATURE : LOG : 3 |
| MATRIX DENSITY | : 2.65 | MATRIX DELTA T | : MATRIX DELTA T : PLOT : SMOXY 7 |
| FLUID DENSITY | : 1.1 | | : THRESH: 10000 |
| NEUTRON MATRIX | : SANDSTONE FLUID DELTA T | | |
| REMARKS | : | | |
| OPEN HOLE | : | | |
| HOLE DEVIATED TO 60 DEG. | : | | |

ALL SERVICES PROVIDED SUBJECT TO STANDARD TERMS AND CONDITIONS



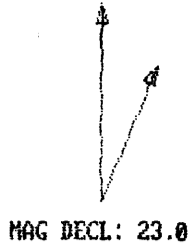
GAMMA-RES-DENSITY

| | | | |
|--|-------------------------|---------------------------------|------------------|
| COMPANY | : PINE VALLEY COAL LTD. | OTHER SERVICES:
9855
9838 | |
| WELL | : WRH-96-013.1 | | |
| LOCATION/FIELD | : WILLOW CREEK PROJECT | | |
| COUNTY | : PINE PASS | | |
| STATE | : BRITISH COLUMBIA | | |
| SECTION | : TOWNSHIP | : RANGE | |
| DATE | : 03/23/96 | PERMANENT DATUM : GROUND | ELEVATIONS |
| DEPTH DRILLER | : 97 | ELEV. PERM. DATUM: GROUND | KB |
| LOG BOTTOM | : 97.00 | LOG MEASURED FROM: GL | DF |
| LOG TOP | : 0.50 | DRL MEASURED FROM: GL | GL |
| CASING DRILLER | : 4 | LOGGING UNIT : 9603 | |
| CASING TYPE | : PUC | FIELD OFFICE : CALGARY, A.B | |
| CASING THICKNESS | : 0.65 | RECORDED BY : B. BOONE | |
| BIT SIZE | : 14 | BOREHOLE FLUID : H2O/AIR | FILE : PROCESSED |
| MAGNETIC DECL. | : 23 | RM | TYPE : 9833AA |
| MATRIX DENSITY | : 2.65 | RM TEMPERATURE | LOG : 6 |
| FLUID DENSITY | : 1.1 | MATRIX DELTA T | PLOT : SMOKY 3 |
| NEUTRON MATRIX | : SANDSTONE | FLUID DELTA T | THRESH: 10000 |
| REMARKS | : | | |
| UPEN HOLE | | | |
| HOLE DEVIATED TO 60 DEG. | | | |
| ALL SERVICES PROVIDED SUBJECT TO STANDARD TERMS AND CONDITIONS | | | |

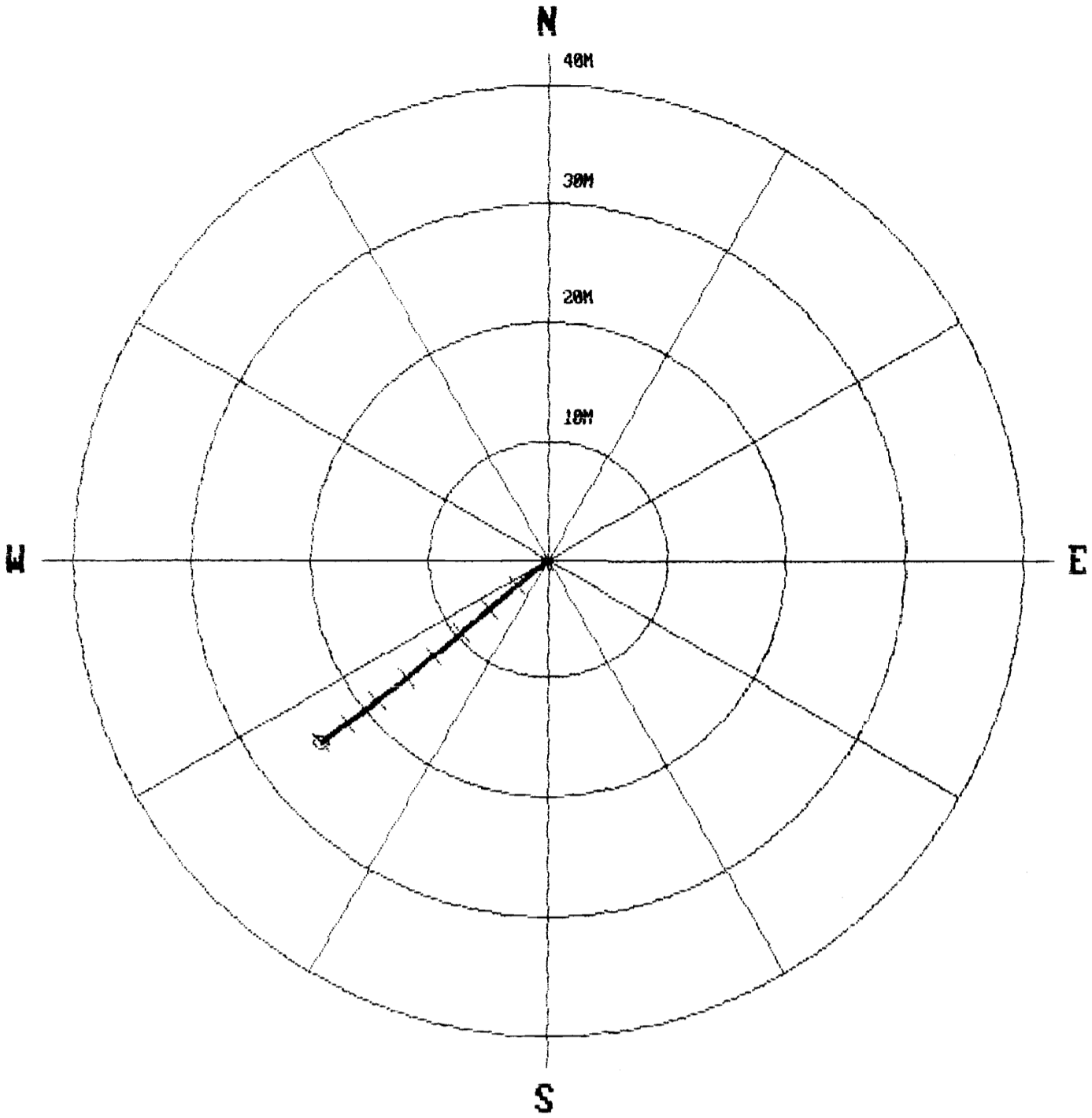


PLAN VIEW COMPU-LOG DEVIATION

CLIENT: PINE VALLEY COAL LTD.
 LOCATION: WILLOW CREEK PROJECT
 HOLE ID: WRH-96-013
 DATE OF LOG: 03/12/96
 PROBE: 9055A 58



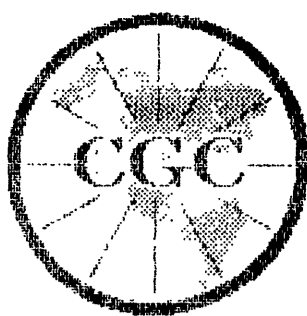
SCALE: 5 M/CM
 TRUE DEPTH: 49.58 M
 AZIMUTH: 231.1
 DISTANCE: 24.5 M
 + = 5 M INCR
 O = BOTTOM OF HOLE



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

CLIENT : PINE VALLEY COAL LT HOLE ID. : WRH-96-013
 FIELD OFFICE : CALGARY, A.B DATE OF LOG : 03/12/96
 DATA FROM : J PROBE : 9055A 58
 MAG. DECL. : 23.000 DEPTH UNITS : METERS LOG 9

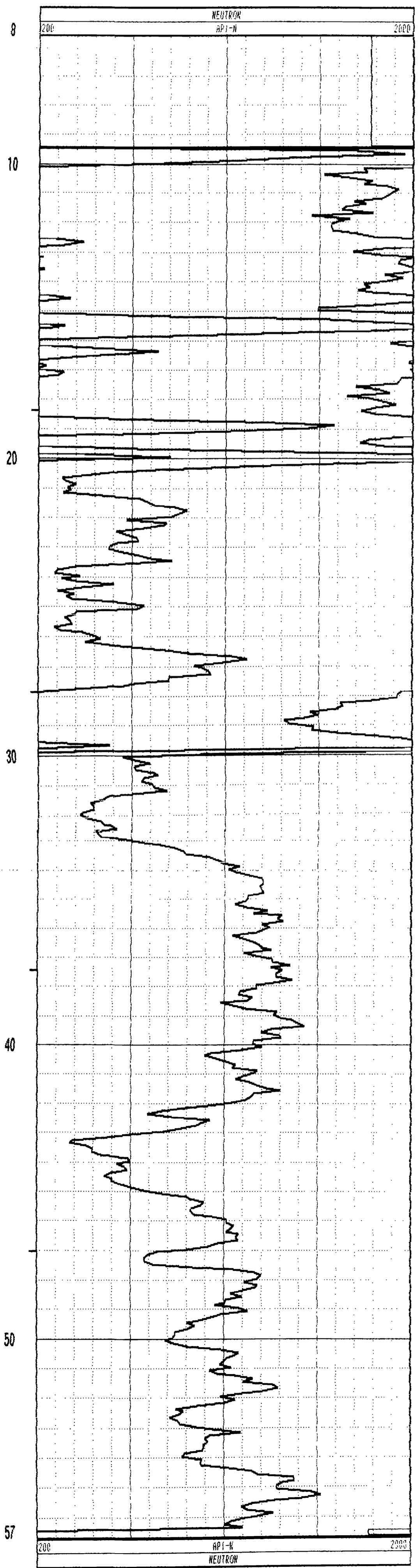
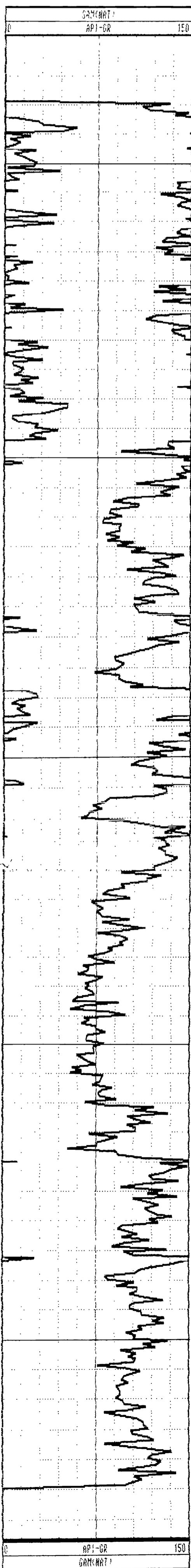
| CABLE DEPTH | TRUE DEPTH | NORTH DEV. | EAST DEV. | DISTANCE | AZIMUTH | SANG | SANGB |
|-------------|------------|------------|-----------|----------|---------|------|-------|
| 9.6 | 9.59 | -0.04 | -0.04 | 0.1 | 228.2 | 31.8 | 228.2 |
| 10.0 | 9.93 | -0.18 | -0.19 | 0.3 | 227.7 | 31.8 | 229.3 |
| 12.0 | 11.62 | -0.84 | -1.01 | 1.3 | 230.2 | 31.8 | 231.4 |
| 14.0 | 13.32 | -1.51 | -1.84 | 2.4 | 230.5 | 32.0 | 229.4 |
| 16.0 | 15.02 | -2.20 | -2.62 | 3.4 | 230.0 | 31.3 | 230.2 |
| 18.0 | 16.72 | -2.89 | -3.42 | 4.5 | 229.8 | 32.0 | 229.0 |
| 20.0 | 18.43 | -3.58 | -4.20 | 5.5 | 229.5 | 31.5 | 231.0 |
| 22.0 | 20.13 | -4.22 | -5.01 | 6.6 | 229.9 | 31.0 | 226.5 |
| 24.0 | 21.84 | -4.90 | -5.80 | 7.6 | 229.8 | 31.4 | 228.7 |
| 26.0 | 23.55 | -5.57 | -6.59 | 8.6 | 229.8 | 31.1 | 228.7 |
| 28.0 | 25.26 | -6.24 | -7.38 | 9.7 | 229.8 | 31.1 | 228.0 |
| 30.0 | 26.98 | -6.91 | -8.15 | 10.7 | 229.7 | 31.1 | 229.5 |
| 32.0 | 28.69 | -7.58 | -8.94 | 11.7 | 229.7 | 31.6 | 229.1 |
| 34.0 | 30.40 | -8.23 | -9.75 | 12.8 | 229.8 | 31.0 | 228.9 |
| 36.0 | 32.11 | -8.90 | -10.55 | 13.8 | 229.8 | 30.9 | 231.1 |
| 38.0 | 33.82 | -9.56 | -11.35 | 14.8 | 229.9 | 31.4 | 231.0 |
| 40.0 | 35.54 | -10.20 | -12.15 | 15.9 | 230.0 | 30.8 | 232.6 |
| 42.0 | 37.25 | -10.84 | -12.95 | 16.9 | 230.1 | 31.2 | 234.1 |
| 44.0 | 38.96 | -11.44 | -13.80 | 17.9 | 230.4 | 31.7 | 235.5 |
| 46.0 | 40.66 | -12.07 | -14.65 | 19.0 | 230.5 | 31.7 | 233.5 |
| 48.0 | 42.35 | -12.70 | -15.49 | 20.0 | 230.7 | 32.0 | 233.0 |
| 50.0 | 44.05 | -13.35 | -16.33 | 21.1 | 230.7 | 31.9 | 233.7 |
| 52.0 | 45.75 | -13.98 | -17.16 | 22.1 | 230.8 | 31.6 | 234.9 |
| 54.0 | 47.45 | -14.60 | -18.02 | 23.2 | 231.0 | 31.9 | 236.6 |
| 56.0 | 49.15 | -15.21 | -18.87 | 24.2 | 231.1 | 31.8 | 234.1 |
| 56.5 | 49.58 | -15.37 | -19.07 | 24.5 | 231.1 | 30.9 | 225.7 |



Century GEOPHYSICAL CORP.

GAMMA-NEUTRON

| | | | |
|--|---------------------------|--------------------|---------------------------|
| COMPANY | : PINE VALLEY COAL LTD. | OTHER SERVICES: | |
| WELL | : WRH-96-013 | 9055 | |
| LOCATION/FIELD | : WILLOW CREEK PROJECT | 9030 | |
| COUNTY | : PINE PASS | | |
| STATE | : BRITISH COLUMBIA | | |
| SECTION | : TOWNSHIP | : J | RANGE : |
| DATE | : 03/12/96 | PERMANENT DATUM | : GROUND ELEVATIONS |
| DEPTH DRILLER | : 57 | ELEV. PERM. DATUM: | GROUND KB : |
| LOG BOTTOM | : 56.80 | LOG MEASURED FROM: | GL DF : |
| LDC TIP | : 8.00 | DRL MEASURED FROM: | GL GL : |
| CASING DRILLER | : 3 | LOGGING UNIT | : 8909 |
| CASING TYPE | : PUC | FIELD OFFICE | : CALGARY, A.B |
| CASING THICKNESS: | 0.65 | RECORDED BY | : B. BOONE |
| BIT SIZE | : 14 | BOREHOLE FLUID | : H2O/AIR FILE : ORIGINAL |
| MAGNETIC DECL. | : 23 | RM | : TYPE : 9055A |
| MATRIX DENSITY | : 2.65 | RM TEMPERATURE | : LOG : 7 |
| FLUID DENSITY | : 1.1 | MATRIX DELTA T | : PLOT : SMORY 7 |
| NEUTRON MATRIX | : SANDSTONE FLUID DELTA T | | : THRESH: 10000 |
| REMARKS | : | | |
| OPEN HOLE | | | |
| HOLE DEVIATED @ 60 DEG. | | | |
| ALL SERVICES PROVIDED SUBJECT TO STANDARD TERMS AND CONDITIONS | | | |



GAMMA-RES-DENSITY

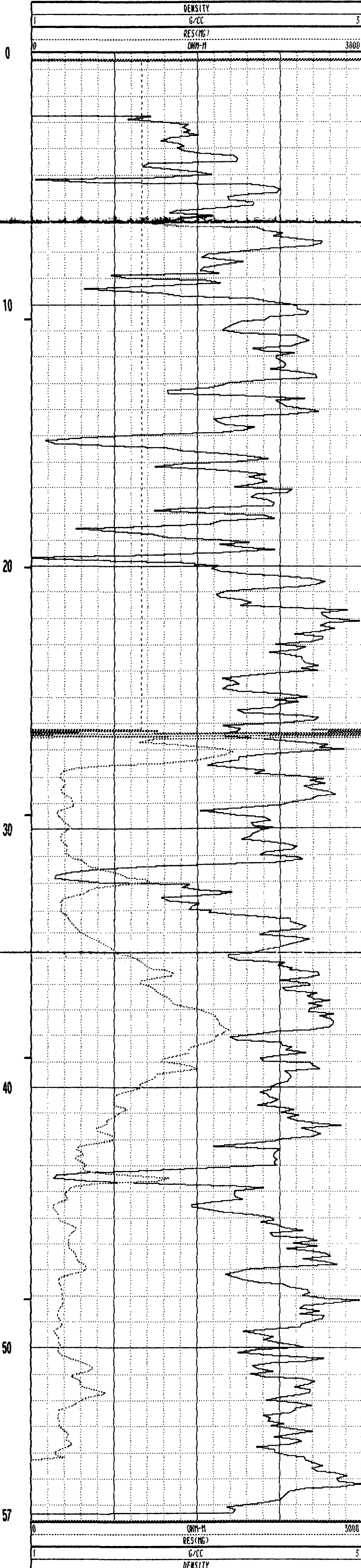
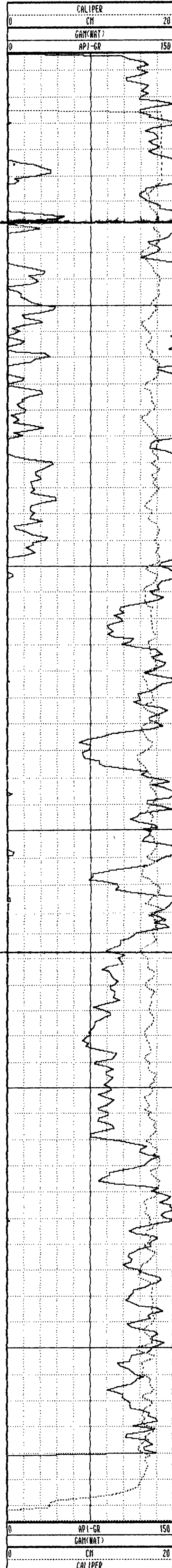
COMPANY : PINE VALLEY COAL LTD.
 WELL : WRH-96-013
 LOCATION/FIELD : WILLOW CREEK PROJECT
 COUNTY : PINE PASS
 STATE : BRITISH COLUMBIA
 SECTION : TOWNSHIP : J RANGE :

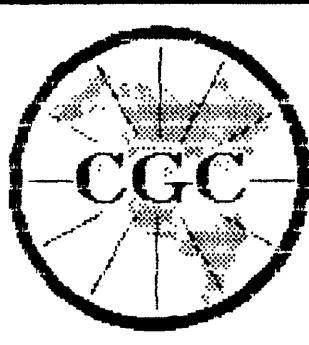
OTHER SERVICES:
 9055
 9030

DATE : 03/12/96 PERMANENT DATUM : GROUND ELEVATIONS
 DEPTH DRILLER : 57 ELEV. PERM. DATUM: GROUND KB :
 LOG BOTTOM : 56.70 LOG MEASURED FROM: GL DF :
 LOG TOP : 0.50 DRL MEASURED FROM: GL GL :
 CASING DRILLER : 3 LOGGING UNIT : 8909
 CASING TYPE : PVC FIELD OFFICE : CALGARY, A.B
 CASING THICKNESS: 0.65 RECORDED BY : B. BOONE

BIT SIZE : 14 BOREHOLE FLUID : H2O/AIR FILE : ORIGINAL
 MAGNETIC DECL. : 23 RM : TYPE : 9030AA
 MATRIX DENSITY : 2.65 RM TEMPERATURE : LOG : 8
 FLUID DENSITY : 1.1 MATRIX DELTA T : PLOT : SMOKY 3
 NEUTRON MATRIX : SANDSTONE FLUID DELTA T : THRESH: 10000
 REMARKS :
 OPEN HOLE
 HOLE DEVIATED @ 60 DEG.

ALL SERVICES PROVIDED SUBJECT TO STANDARD TERMS AND CONDITIONS





Century
GEOPHYSICAL CORP.

GAMMA-NEUTRON

COMPANY : PINE VALLEY COAL LTD.
WELL : WRH-96-014
LOCATION/FIELD : WILLOW CREEK PROJECT
COUNTY : PINE PASS
STATE : BRITISH COLUMBIA

OTHER SERVICES:
9055
9030

SECTION : TOWNSHIP : RANGE :

DATE : 03/13/96 PERMANENT DATUM : GROUND ELEVATIONS
DEPTH DRILLER : 56 ELEV. PERM. DATUM: GROUND KB :
LOG BOTTOM : 56.38 LOG MEASURED FROM: GL DF :
LOG TOP : 1.38 DRL MEASURED FROM: GL GL :

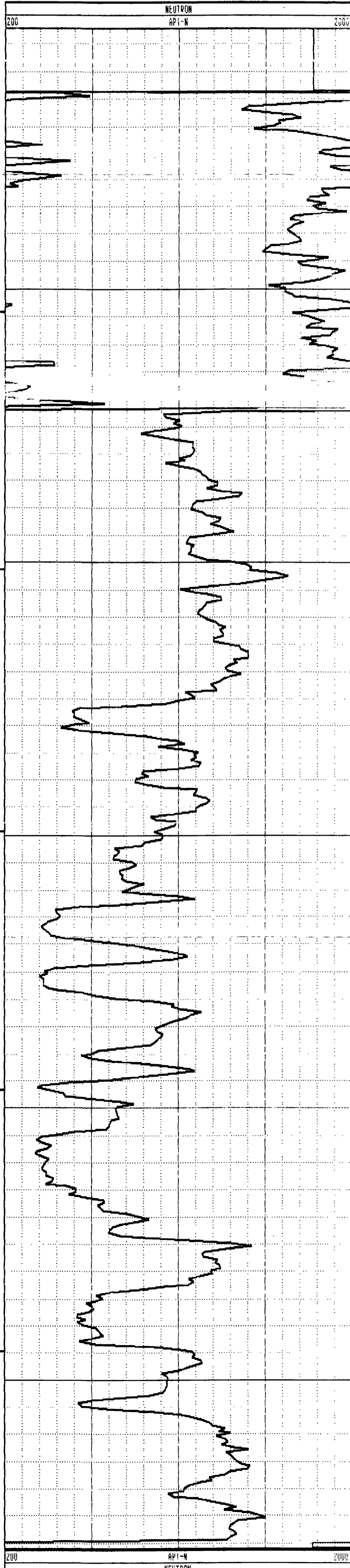
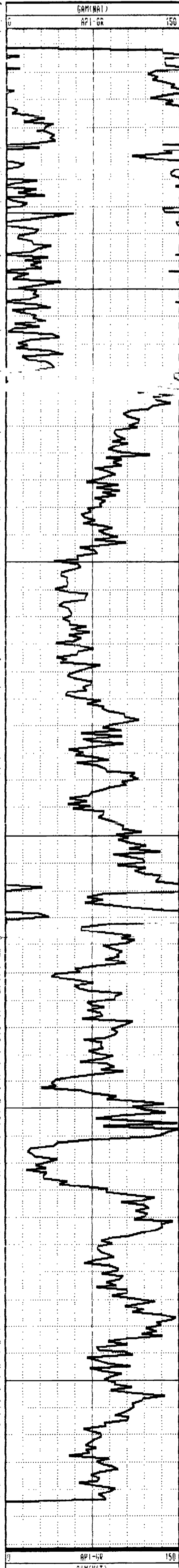
CASING DRILLER : 1.5 LOGGING UNIT : 9603
CASING TYPE : PVC FIELD OFFICE : CALGARY, A.B
CASING THICKNESS: - RECORDED BY : B.DOONE

BIT SIZE : 14 BOREHOLE FLUID : H2O/AIR FILE : ORIGINAL
MAGNETIC DECL. : 23 RM TYPE : 9055A
MATRIX DENSITY : 2.65 RM TEMPERATURE : LOG : 6
FLUID DENSITY : 1.1 MATRIX DELTA T : PLOT : SMOKY 7
NEUTRON MATRIX : SANDSTONE FLUID DELTA T : THRESH: 10000

REMARKS :

OPEN HOLE
DEVIATED TO 60 DEG.

ALL SERVICES PROVIDED SUBJECT TO STANDARD TERMS AND CONDITIONS



GAMMA-RES-DENSITY

COMPANY : PINE VALLEY COAL LTD.
 WELL : WRH-96-014
 LOCATION/FIELD : WILLOW CREEK PROJECT
 COUNTY : PINE PASS
 STATE : BRITISH COLUMBIA
 SECTION : TOWNSHIP : RANGE :

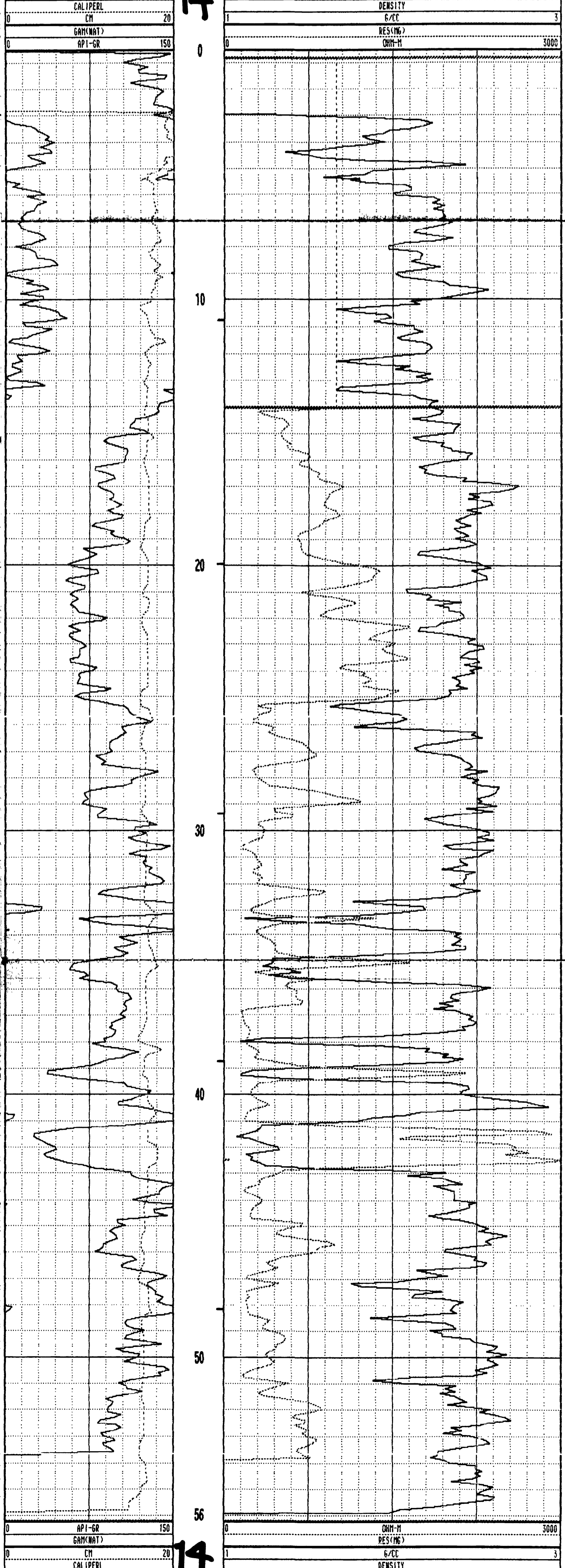
OTHER SERVICES:
 9055
 9030

DATE : 03/13/96 PERMANENT DATUM : GROUND ELEVATIONS
 DEPTH DRILLER : 56 ELEV. PERM. DATUM: GROUND KB :
 LOG BOTTOM : 56.30 LOG MEASURED FROM: GL DF :
 LOG TOP : 0.70 DRL MEASURED FROM: GL GL :
 CASING DRILLER : 1.5 LOGGING UNIT : 9603
 CASING TYPE : PVC FIELD OFFICE : CALGARY, A.B
 CASING THICKNESS: RECORDED BY : B. BOONE

BIT SIZE : 14 BOREHOLE FLUID : H2O/AIR FILE : ORIGINAL
 MAGNETIC DECL. : 23 RM : TYPE : 9033AA
 MATRIX DENSITY : 2.65 RM TEMPERATURE : LOG : 8
 FLUID DENSITY : 1.1 MATRIX DELTA T : PLOT : SMOKY 3
 NEUTRON MATRIX : SANDSTONE FLUID DELTA T : THRESH: 10000
 REMARKS :

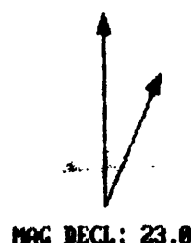
OPEN HOLE
 DEVIATED TO 60 DEG.

ALL SERVICES PROVIDED SUBJECT TO STANDARD TERMS AND CONDITIONS

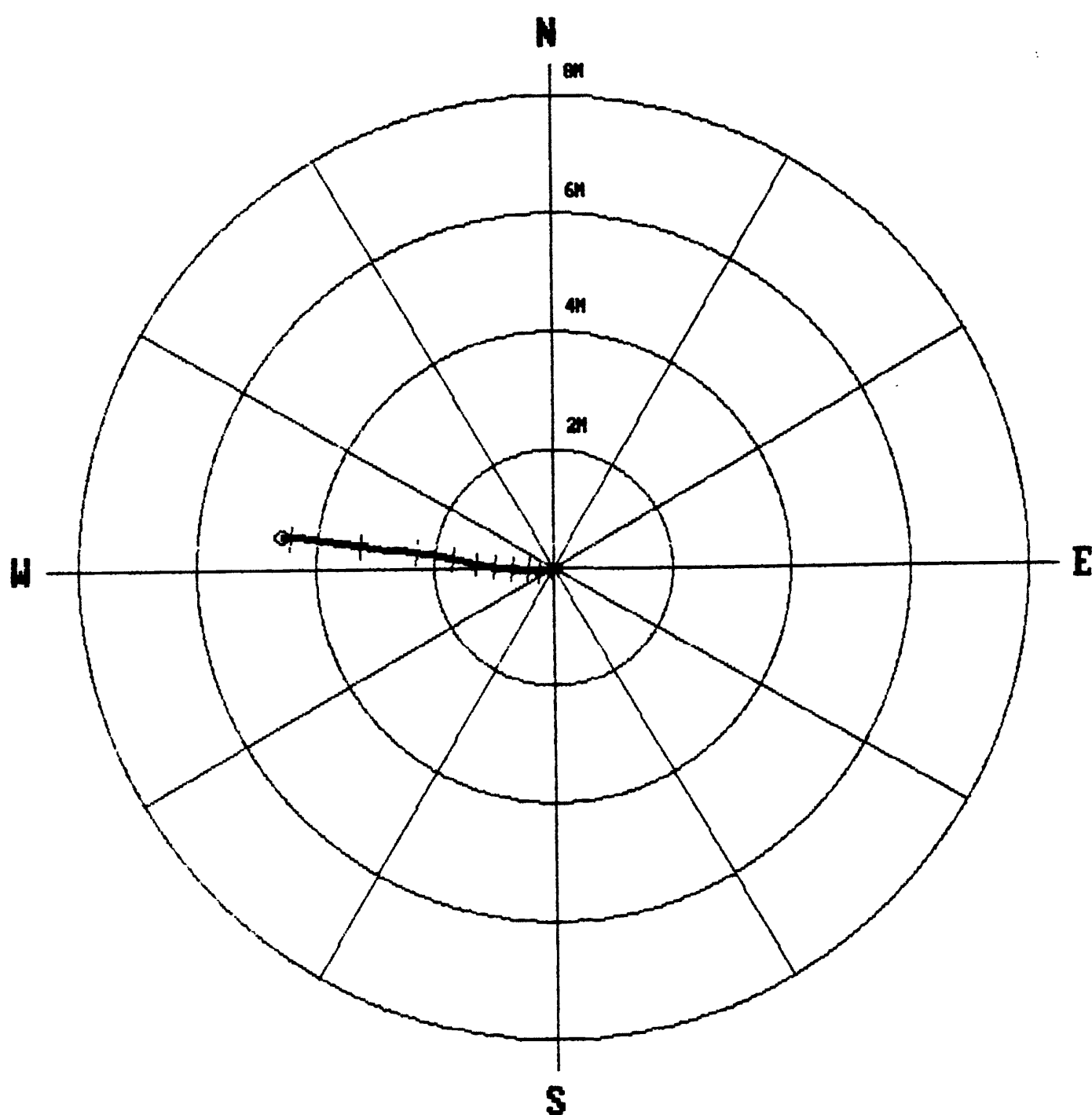


PLAN VIEW COMPU-LOG DEVIATION

CLIENT: PINE VALLEY COAL LTD.
 LOCATION: MILLON CREEK PROJECT
 HOLE ID: WRH-96-015.1
 DATE OF LOG: 03/16/96
 PROBE: 9055A 58



SCALE: 1 M/CM
 TRUE DEPTH: 101.03 M
 AZIMUTH: 276.6
 DISTANCE: 4.6 M
 + = 10 M INCR
 O = BOTTOM OF HOLE



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

CLIENT : PINE VALLEY COAL LT HOLE ID. : WRH-96-015.1
 FIELD OFFICE : CALGARY, A.B DATE OF LOG : 03/16/96
 DATA FROM : PROBE : 9055A , 58
 MAG. DECL. : 23.000 DEPTH UNITS : METERS LOG 5

| CABLE DEPTH | TRUE DEPTH | NORTH DEV. | EAST DEV. | DISTANCE | AZIMUTH | SANG | SANGB |
|-------------|------------|------------|-----------|----------|---------|------|-------|
| 9.6 | 9.60 | -0.00 | -0.00 | 0.0 | 247.2 | 1.2 | 247.2 |
| 10.0 | 10.00 | -0.00 | -0.01 | 0.0 | 248.9 | 1.2 | 255.6 |
| 12.0 | 12.00 | -0.01 | -0.05 | 0.1 | 254.4 | 2.0 | 263.7 |
| 14.0 | 14.00 | -0.03 | -0.10 | 0.1 | 253.8 | 0.7 | 276.8 |
| 16.0 | 16.00 | -0.03 | -0.13 | 0.1 | 256.8 | 1.1 | 262.6 |
| 18.0 | 18.00 | -0.04 | -0.18 | 0.2 | 257.7 | 1.8 | 247.8 |
| 20.0 | 20.00 | -0.05 | -0.23 | 0.2 | 257.2 | 1.1 | 259.7 |
| 22.0 | 22.00 | -0.05 | -0.27 | 0.3 | 259.0 | 1.1 | 266.8 |
| 24.0 | 24.00 | -0.05 | -0.30 | 0.3 | 260.4 | 0.8 | 273.3 |
| 26.0 | 26.00 | -0.04 | -0.34 | 0.3 | 262.7 | 1.1 | 278.3 |
| 28.0 | 28.00 | -0.03 | -0.38 | 0.4 | 264.7 | 1.1 | 284.6 |
| 30.0 | 30.00 | -0.03 | -0.42 | 0.4 | 266.2 | 1.1 | 277.7 |
| 32.0 | 31.99 | -0.02 | -0.46 | 0.5 | 267.0 | 1.7 | 277.9 |
| 34.0 | 33.99 | -0.02 | -0.52 | 0.5 | 267.6 | 1.4 | 266.2 |
| 36.0 | 35.99 | -0.02 | -0.57 | 0.6 | 268.1 | 1.7 | 272.7 |
| 38.0 | 37.99 | -0.02 | -0.62 | 0.6 | 268.4 | 1.2 | 261.4 |
| 40.0 | 39.99 | -0.01 | -0.69 | 0.7 | 268.8 | 1.8 | 271.0 |
| 42.0 | 41.99 | -0.01 | -0.75 | 0.8 | 269.2 | 1.9 | 274.1 |
| 44.0 | 43.99 | -0.01 | -0.81 | 0.8 | 269.5 | 1.7 | 275.6 |
| 46.0 | 45.99 | -0.00 | -0.87 | 0.9 | 269.7 | 1.9 | 271.7 |
| 48.0 | 47.99 | -0.00 | -0.92 | 0.9 | 269.9 | 1.4 | 265.7 |
| 50.0 | 49.99 | 0.01 | -0.98 | 1.0 | 270.5 | 1.5 | 279.0 |
| 52.0 | 51.99 | 0.02 | -1.04 | 1.0 | 271.2 | 2.1 | 289.5 |
| 54.0 | 53.98 | 0.04 | -1.10 | 1.1 | 272.0 | 1.8 | 292.8 |
| 56.0 | 55.98 | 0.05 | -1.16 | 1.2 | 272.4 | 1.6 | 290.9 |
| 58.0 | 57.98 | 0.06 | -1.22 | 1.2 | 272.9 | 1.9 | 280.7 |
| 60.0 | 59.98 | 0.07 | -1.29 | 1.3 | 273.2 | 1.8 | 285.6 |
| 62.0 | 61.98 | 0.08 | -1.34 | 1.3 | 273.5 | 2.1 | 294.6 |
| 64.0 | 63.98 | 0.10 | -1.42 | 1.4 | 273.9 | 1.8 | 280.2 |
| 66.0 | 65.98 | 0.12 | -1.48 | 1.5 | 274.5 | 2.6 | 286.1 |
| 68.0 | 67.98 | 0.14 | -1.57 | 1.6 | 275.0 | 3.1 | 284.5 |
| 70.0 | 69.97 | 0.17 | -1.68 | 1.7 | 275.7 | 3.0 | 283.3 |
| 72.0 | 71.97 | 0.19 | -1.78 | 1.8 | 276.0 | 3.2 | 283.9 |
| 74.0 | 73.97 | 0.21 | -1.88 | 1.9 | 276.4 | 2.9 | 283.7 |
| 76.0 | 75.96 | 0.23 | -2.01 | 2.0 | 276.7 | 3.3 | 285.4 |
| 78.0 | 77.96 | 0.25 | -2.14 | 2.2 | 276.7 | 3.9 | 264.1 |
| 80.0 | 79.95 | 0.27 | -2.29 | 2.3 | 276.7 | 5.4 | 281.1 |
| 82.0 | 81.94 | 0.30 | -2.47 | 2.5 | 276.9 | 5.1 | 278.5 |
| 84.0 | 83.94 | 0.32 | -2.64 | 2.7 | 276.8 | 4.4 | 274.2 |
| 86.0 | 85.93 | 0.32 | -2.81 | 2.8 | 276.6 | 5.9 | 266.5 |
| 88.0 | 87.92 | 0.36 | -3.02 | 3.0 | 276.7 | 6.1 | 279.4 |
| 90.0 | 89.91 | 0.38 | -3.23 | 3.3 | 276.7 | 6.1 | 275.7 |
| 92.0 | 91.89 | 0.41 | -3.45 | 3.5 | 276.8 | 6.9 | 276.7 |
| 94.0 | 93.88 | 0.44 | -3.67 | 3.7 | 276.8 | 6.5 | 278.4 |
| 96.0 | 95.87 | 0.47 | -3.89 | 3.9 | 276.9 | 6.9 | 291.1 |
| 98.0 | 97.85 | 0.51 | -4.13 | 4.2 | 277.0 | 7.4 | 280.3 |
| 100.0 | 99.84 | 0.52 | -4.40 | 4.4 | 276.8 | 7.5 | 272.7 |
| 101.2 | 101.03 | 0.53 | -4.55 | 4.6 | 276.6 | 7.5 | 272.9 |



GAMMA-NEUTRON

COMPANY : PINE VALLEY COAL LTD.
WELL : WRH-96-015.1
LOCATION/FIELD : WILLOW CREEK PROJECT
COUNTY : PINE PASS
STATE : BRITISH COLUMBIA
SECTION : TOWNSHIP :

OTHER SERVICES:
9055
9030

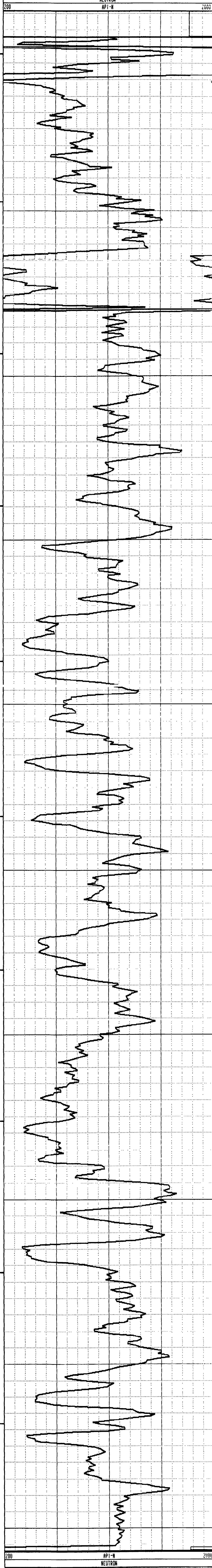
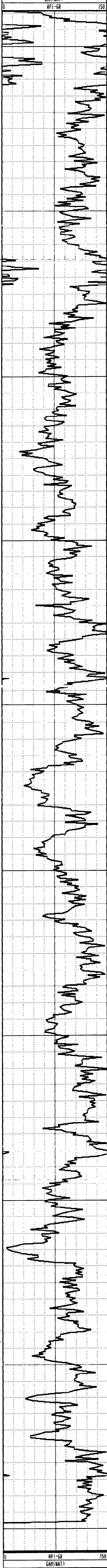
DATE : 03/16/96 PERMANENT DATUM : GROUND ELEVATIONS
DEPTH DRILLER : 98 ELEV. PERM. DATUM: GROUND KB :
LOG BOTTOM : 101.50 LOG MEASURED FROM: GL DF :
LOG TOP : 8.00 DRL MEASURED FROM: GL GL :

CASING DRILLER : 2.5 LOGGING UNIT : 9603
CASING TYPE : PUC FIELD OFFICE : CALGARY, A.B
CASING THICKNESS: - RECORDED BY : B. BOONE

BIT SIZE : 14 BOREHOLE FLUID : H2O/AIR FILE : ORIGINAL
MAGNETIC DECL. : 23 RM TYPE : 9055A
MATRIX DENSITY : 2.65 RM TEMPERATURE : LOG : 3
FLUID DENSITY : 1.1 MATRIX DELTA T : PLOT : SMOXY 7
NEUTRON MATRIX : SANDSTONE FLUID DELTA T : THRESH: 10000

REMARKS :
OPEN HOLE
VERTICAL

ALL SERVICES PROVIDED SUBJECT TO STANDARD TERMS AND CONDITIONS



GAMMA-RES-DENSITY

COMPANY : PINE VALLEY COAL LTD.
 WELL : WRH-96-015.1
 LOCATION/FIELD : WILLOW CREEK PROJECT
 COUNTY : PINE PASS
 STATE : BRITISH COLUMBIA
 SECTION : TOWNSHIP : RANGE :

OTHER SERVICES:
 9055
 9030

DATE : 03/16/96 PERMANENT DATUM : GROUND ELEVATIONS
 DEPTH DRILLER : 98 ELEV. FERM. DATUM: GROUND KB :
 LOG BOTTOM : 102.00 LOG MEASURED FROM: GL DF :
 LOG TOP : 0.50 DRL MEASURED FROM: GL GL :

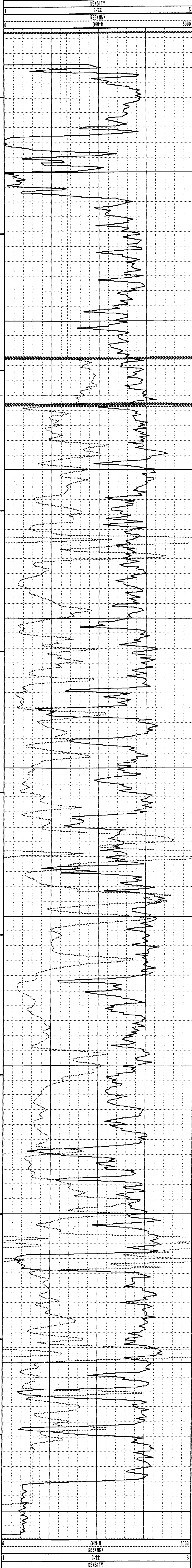
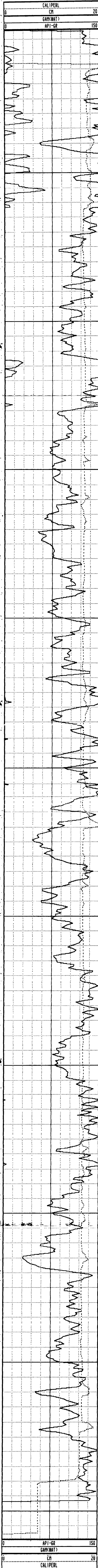
CASING DRILLER : 2.5 LOGGING UNIT : 9603
 CASING TYPE : PUC FIELD OFFICE : CALGARY, A.B
 CASING THICKNESS: - RECORDED BY : B. BOONE

BIT SIZE : 14 BOREHOLE FLUID : H2O/AIR FILE : ORIGINAL
 MAGNETIC DECL. : 23 RM : TYPE : 9033AA
 MATRIX DENSITY : 2.65 RM TEMPERATURE : LOG : 4
 FLUID DENSITY : 1.1 MATRIX DELTA T : PLOT : SMOKY 3
 NEUTRON MATRIX : SANDSTONE FLUID DELTA T : THRESH: 10000

REMARKS :

OPEN HOLE
VERTICAL

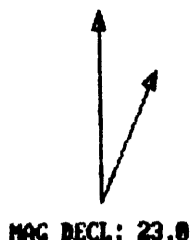
ALL SERVICES PROVIDED SUBJECT TO STANDARD TERMS AND CONDITIONS



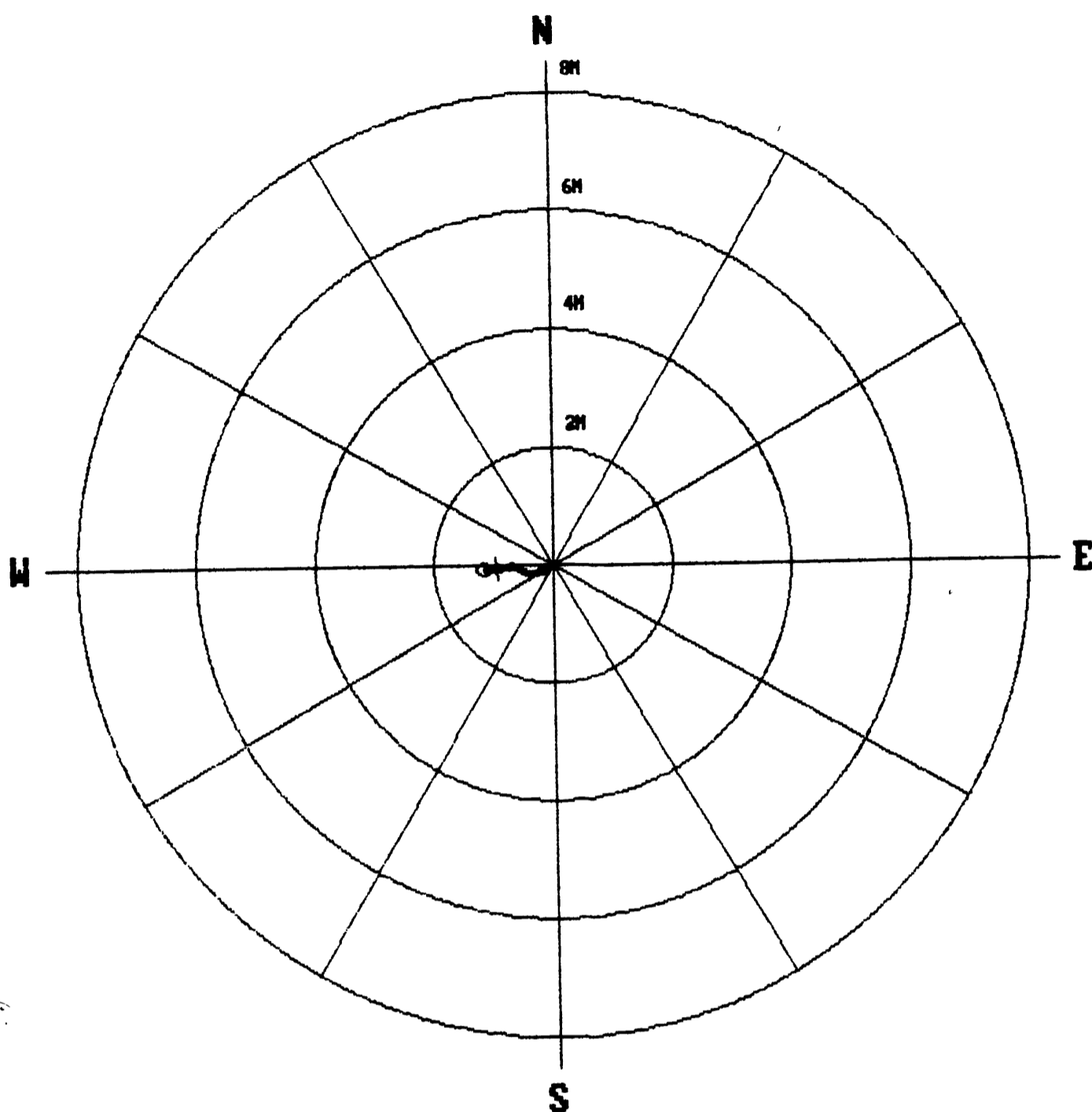
PLAN VIEW

COMPU-LOG DEVIATION

CLIENT: PINE VALLEY COAL LTD.
 LOCATION: MILLON CREEK PROJECT
 HOLE ID: WRH-96-015
 DATE OF LOG: 03/13/96
 PROBE: 9055A 58



SCALE: 1 M/CM
 TRUE DEPTH: 56.38 M
 AZIMUTH: 267.2
 DISTANCE: 1.1 M
 + = 50 M INCR
 O = BOTTOM OF HOLE



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

CLIENT : PINE VALLEY COAL LT HOLE ID. : WRH-96-015
 FIELD OFFICE : CALGARY, A.B DATE OF LOG : 03/13/96
 DATA FROM : PROBE : 9055A , 58
 MAG. DECL. : 23.000 DEPTH UNITS : METERS LOG 2

| CABLE DEPTH | TRUE DEPTH | NORTH DEV. | EAST DEV. | DISTANCE | AZIMUTH | SANG | SANGB |
|-------------|------------|------------|-----------|----------|---------|------|-------|
| 7.3 | 7.30 | -0.00 | -0.00 | 0.0 | 228.7 | 1.7 | 228.7 |
| 7.7 | 7.70 | -0.01 | -0.01 | 0.0 | 230.3 | 1.7 | 230.2 |
| 9.7 | 9.70 | -0.04 | -0.06 | 0.1 | 232.8 | 1.6 | 240.5 |
| 11.7 | 11.70 | -0.07 | -0.10 | 0.1 | 235.7 | 1.4 | 250.8 |
| 13.7 | 13.70 | -0.10 | -0.16 | 0.2 | 239.4 | 1.6 | 241.9 |
| 15.7 | 15.70 | -0.11 | -0.21 | 0.2 | 241.3 | 1.5 | 258.0 |
| 17.7 | 17.70 | -0.13 | -0.26 | 0.3 | 244.2 | 1.9 | 265.6 |
| 19.7 | 19.69 | -0.14 | -0.33 | 0.4 | 247.5 | 1.9 | 254.9 |
| 21.7 | 21.69 | -0.14 | -0.38 | 0.4 | 250.0 | 1.4 | 281.0 |
| 23.7 | 23.69 | -0.13 | -0.43 | 0.4 | 252.7 | 1.3 | 281.8 |
| 25.7 | 25.69 | -0.12 | -0.47 | 0.5 | 255.4 | 1.5 | 280.9 |
| 27.7 | 27.69 | -0.11 | -0.50 | 0.5 | 257.9 | 0.8 | 292.3 |
| 29.7 | 29.69 | -0.09 | -0.53 | 0.5 | 260.4 | 0.7 | 303.9 |
| 31.7 | 31.69 | -0.07 | -0.55 | 0.6 | 263.0 | 1.0 | 307.8 |
| 33.7 | 33.69 | -0.05 | -0.59 | 0.6 | 265.5 | 1.0 | 307.4 |
| 35.7 | 35.69 | -0.03 | -0.62 | 0.6 | 267.3 | 1.1 | 285.4 |
| 37.7 | 37.69 | -0.02 | -0.65 | 0.6 | 267.9 | 0.8 | 284.4 |
| 39.7 | 39.69 | -0.02 | -0.69 | 0.7 | 268.6 | 1.3 | 259.5 |
| 41.7 | 41.69 | -0.02 | -0.74 | 0.7 | 268.2 | 1.4 | 262.2 |
| 43.7 | 43.69 | -0.03 | -0.78 | 0.8 | 267.6 | 1.1 | 248.7 |
| 45.7 | 45.69 | -0.05 | -0.83 | 0.8 | 266.8 | 1.6 | 258.0 |
| 47.7 | 47.69 | -0.06 | -0.88 | 0.9 | 266.4 | 1.5 | 261.0 |
| 49.7 | 49.69 | -0.06 | -0.94 | 0.9 | 266.2 | 1.7 | 264.7 |
| 51.7 | 51.69 | -0.07 | -0.99 | 1.0 | 266.0 | 1.7 | 268.2 |
| 53.7 | 53.69 | -0.07 | -1.06 | 1.1 | 266.4 | 1.6 | 265.1 |
| 55.7 | 55.68 | -0.06 | -1.12 | 1.1 | 267.0 | 1.8 | 277.4 |
| 56.4 | 56.38 | -0.06 | -1.14 | 1.1 | 267.2 | 1.8 | 275.7 |



Century GEOPHYSICAL CORP.

GAMMA-NEUTRON

COMPANY : PINE VALLEY COAL LTD.
 WELL : WRH-96-015
 LOCATION/FIELD : WILLOW CREEK PROJECT
 COUNTY : PINE PASS
 STATE : BRITISH COLUMBIA
 SECTION : TOWNSHIP : RANGE :

OTHER SERVICES:
 9055
 9030

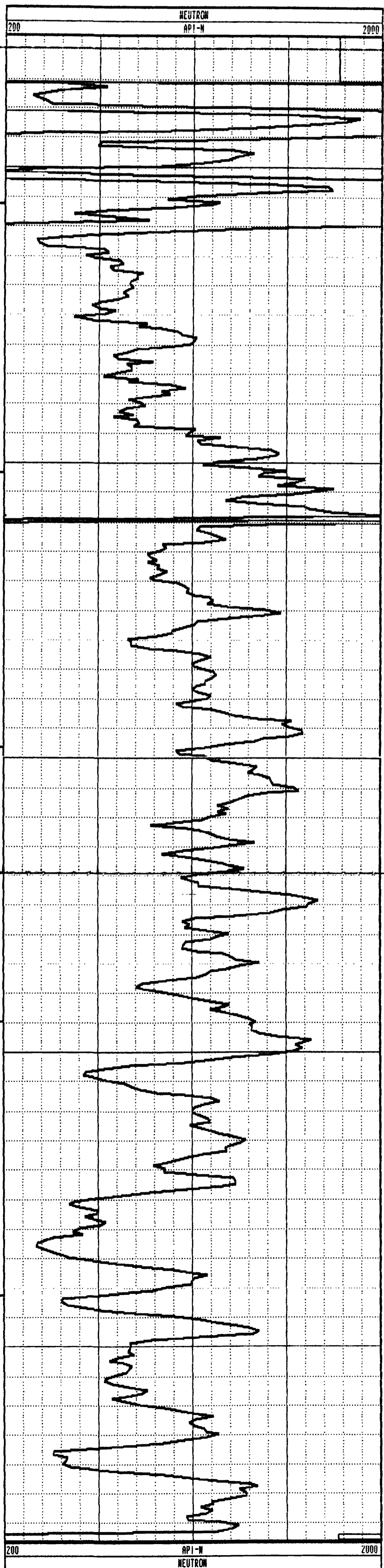
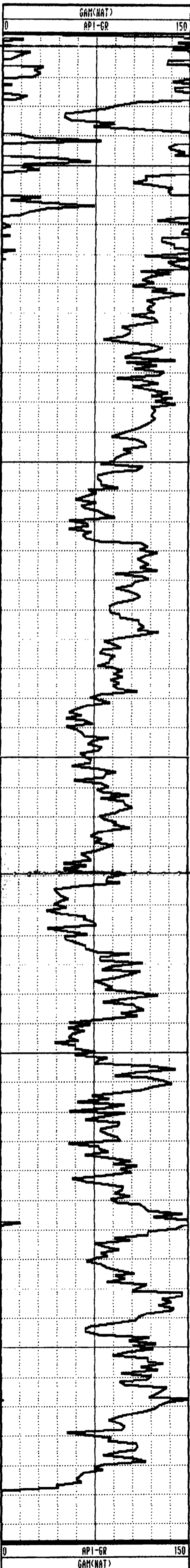
DATE : 03/13/96 PERMANENT DATUM : GROUND ELEVATIONS
 DEPTH DRILLER : 56 ELEV. PERM. DATUM: GROUND KB :
 LOG BOTTOM : 56.70 LOG MEASURED FROM: GL DF :
 LOG TOP : 5.70 DRL MEASURED FROM: GL GL :

CASING DRILLER : 3.5 LOGGING UNIT : 9603
 CASING TYPE : PVC FIELD OFFICE : CALGARY, A.B
 CASING THICKNESS: - RECORDED BY : B. BOONE

BIT SIZE : 14 BOREHOLE FLUID : H2O/AIR FILE : ORIGINAL
 MAGNETIC DECL. : 23 RM : TYPE : 9055A
 MATRIX DENSITY : 2.65 RM TEMPERATURE : LOG : 1
 FLUID DENSITY : 1.1 MATRIX DELTA T : PLOT : SMOKY 7
 NEUTRON MATRIX : SANDSTONE FLUID DELTA T : THRESH: 10000

REMARKS :
 OPEN HOLE
 VERTICAL

ALL SERVICES PROVIDED SUBJECT TO STANDARD TERMS AND CONDITIONS



GAMMA-RES-DENSITY

COMPANY : PINE VALLEY COAL LTD.
 WELL : WRH-96-015
 LOCATION/FIELD : WILLOW CREEK PROJECT
 COUNTY : PINE PASS
 STATE : BRITISH COLUMBIA
 SECTION : TOWNSHIP : RANGE :

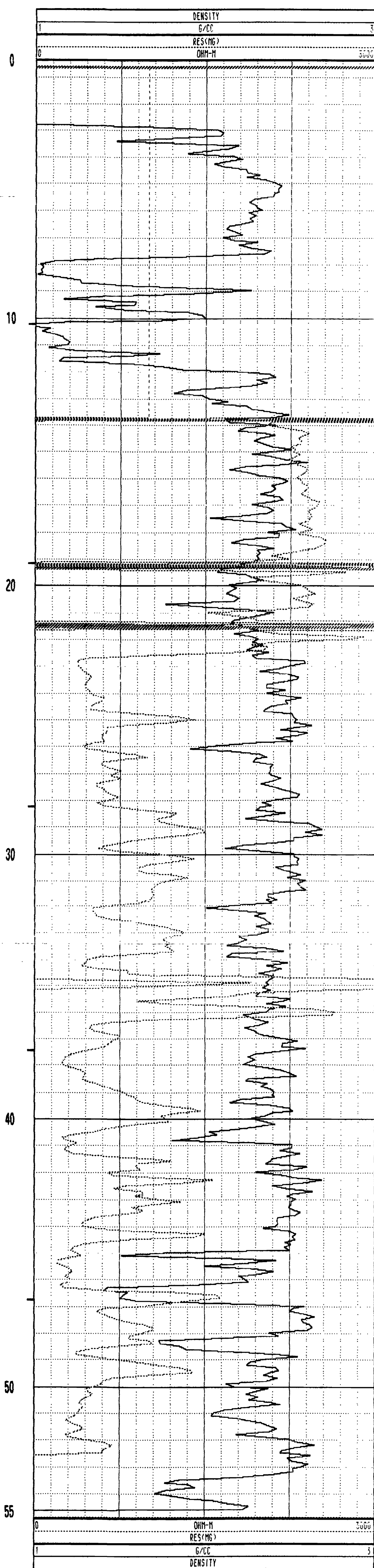
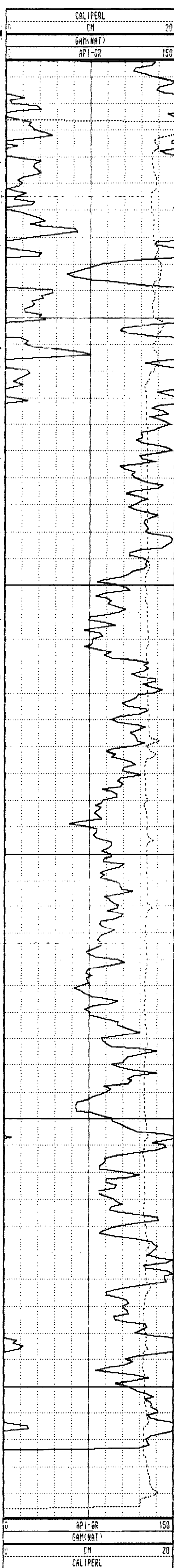
OTHER SERVICES:
 9055
 9030

DATE : 03/13/96 PERMANENT DATUM : GROUND ELEVATIONS
 DEPTH DRILLER : 56 ELEV. PERM. DATUM: GROUND KB :
 LOG BOTTOM : 55.00 LOG MEASURED FROM: GL DF :
 LOG TOP : 0.50 DRL MEASURED FROM: GL GL :

CASING DRILLER : 3.5 LOGGING UNIT : 9603
 CASING TYPE : PVC FIELD OFFICE : CALGARY, A.B
 CASING THICKNESS: - RECORDED BY : B. BOONE

BIT SIZE : 14 BOREHOLE FLUID : H2O/ATR FILE : ORIGINAL
 MAGNETIC DECL. : 23 RM : TYPE : 9033AA
 MATRIX DENSITY : 2.65 RM TEMPERATURE : LOG : 3
 FLUID DENSITY : 1.1 MATRIX DELTA T : PLOT : SMOKY 3
 NEUTRON MATRIX : SANDSTONE FLUID DELTA T : THRESH: 10000
 REMARKS :
 OPEN HOLE
 VERTICAL

ALL SERVICES PROVIDED SUBJECT TO STANDARD TERMS AND CONDITIONS

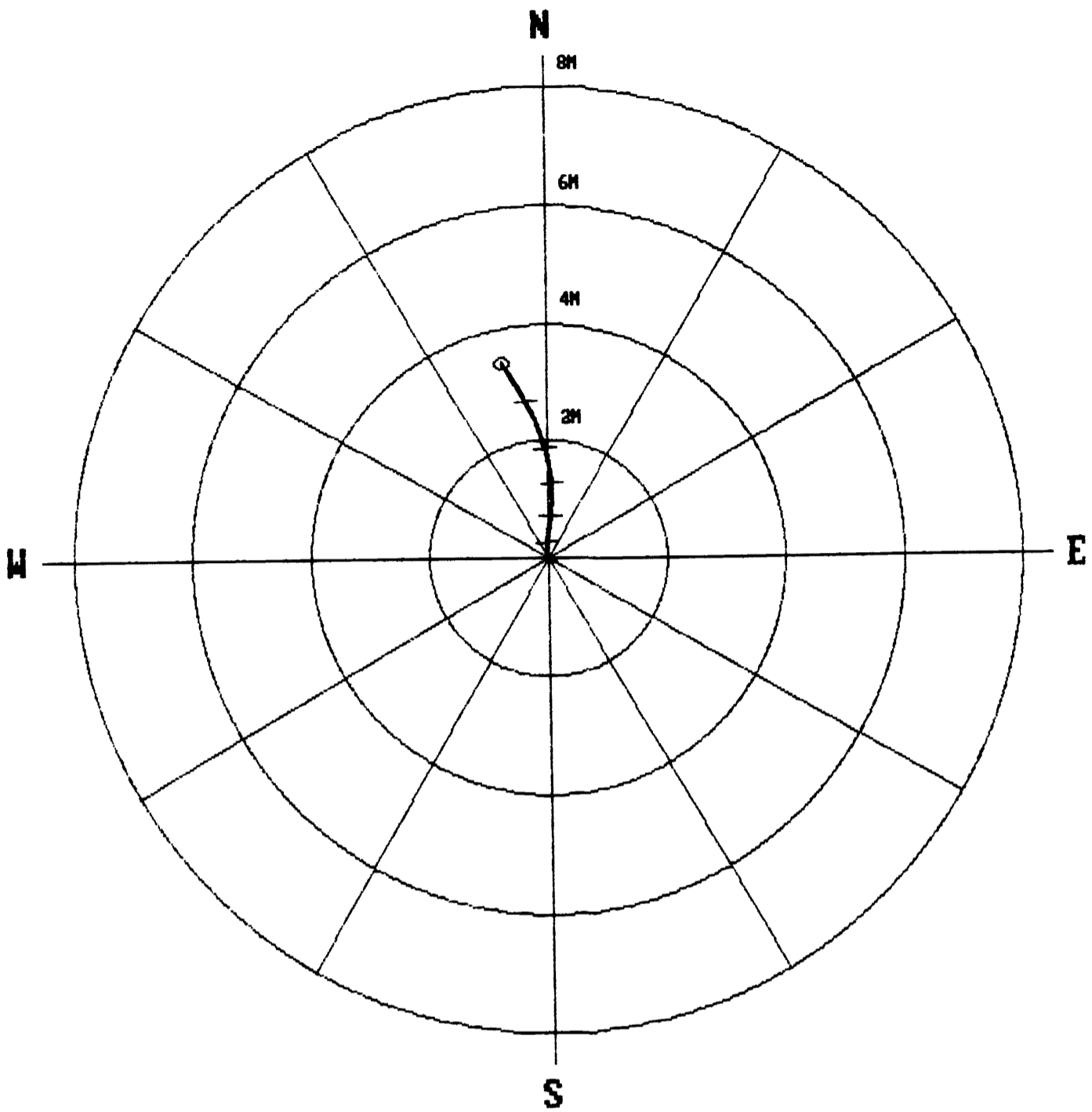


PLAN VIEW COMPU-LOG DEVIATION

CLIENT: PINE VALLEY COAL LTD.
 LOCATION: MILLON CREEK PROJECT
 HOLE ID: WRH-96-016
 DATE OF LOG: 03/14/96
 PROBL: 9055A 58



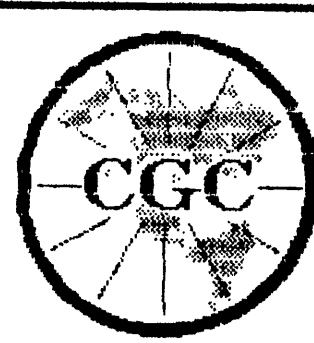
SCALE: 1 M/CM
 TRUE DEPTH: 56.67 M
 AZIMUTH: 347.3
 DISTANCE: 3.4 M
 + = 10 M INCR
 O = BOTTOM OF HOLE



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

| | | | |
|--------------|-----------------------|-------------|----------------|
| CLIENT | : PINE VALLEY COAL LT | HOLE ID. | : WRH-96-016 |
| FIELD OFFICE | : CALGARY, A.B | DATE OF LOG | : 03/14/96 |
| DATA FROM | : | PROBE | : 9055A 58 |
| MAG. DECL. | : 23.000 | DEPTH UNITS | : METERS LOG 8 |

| CABLE DEPTH | TRUE DEPTH | NORTH DEV. | EAST DEV. | DISTANCE | AZIMUTH | SANG | SANGB |
|-------------|------------|------------|-----------|----------|---------|------|-------|
| 2.7 | 2.70 | 0.00 | -0.00 | 0.0 | 324.2 | 1.2 | 324.2 |
| 3.1 | 3.10 | 0.01 | -0.01 | 0.0 | 331.4 | 1.5 | 328.6 |
| 5.1 | 5.10 | 0.06 | -0.02 | 0.1 | 340.5 | 1.7 | 342.8 |
| 7.1 | 7.10 | 0.13 | -0.02 | 0.1 | 350.0 | 2.1 | 8.1 |
| 9.1 | 9.10 | 0.22 | -0.01 | 0.2 | 356.2 | 2.9 | 5.8 |
| 11.1 | 11.09 | 0.30 | -0.00 | 0.3 | 359.2 | 2.4 | 9.1 |
| 13.1 | 13.09 | 0.38 | 0.01 | 0.4 | 0.8 | 2.8 | 8.9 |
| 15.1 | 15.09 | 0.47 | 0.02 | 0.5 | 2.2 | 2.4 | 6.2 |
| 17.1 | 17.09 | 0.55 | 0.03 | 0.6 | 3.1 | 2.2 | 6.3 |
| 19.1 | 19.09 | 0.66 | 0.05 | 0.7 | 4.0 | 3.1 | 2.5 |
| 21.1 | 21.08 | 0.76 | 0.05 | 0.8 | 4.1 | 3.0 | 6.2 |
| 23.1 | 23.08 | 0.87 | 0.06 | 0.9 | 4.1 | 3.2 | 6.1 |
| 25.1 | 25.08 | 0.98 | 0.07 | 1.0 | 4.4 | 3.2 | 6.5 |
| 27.1 | 27.07 | 1.09 | 0.07 | 1.1 | 3.8 | 3.1 | 358.3 |
| 29.1 | 29.07 | 1.20 | 0.07 | 1.2 | 3.3 | 3.3 | 2.6 |
| 31.1 | 31.07 | 1.31 | 0.07 | 1.3 | 3.0 | 3.1 | 356.4 |
| 33.1 | 33.06 | 1.42 | 0.05 | 1.4 | 2.2 | 3.6 | 347.3 |
| 35.1 | 35.06 | 1.54 | 0.03 | 1.5 | 1.2 | 3.7 | 350.0 |
| 37.1 | 37.06 | 1.67 | 0.01 | 1.7 | 0.3 | 4.0 | 353.1 |
| 39.1 | 39.05 | 1.81 | -0.01 | 1.8 | 359.5 | 3.7 | 343.4 |
| 41.1 | 41.05 | 1.94 | -0.07 | 1.9 | 358.0 | 4.4 | 336.4 |
| 43.1 | 43.04 | 2.09 | -0.11 | 2.1 | 357.0 | 5.4 | 351.3 |
| 45.1 | 45.03 | 2.26 | -0.17 | 2.3 | 355.7 | 4.6 | 328.7 |
| 47.1 | 47.03 | 2.41 | -0.23 | 2.4 | 354.5 | 5.1 | 333.4 |
| 49.1 | 49.02 | 2.58 | -0.32 | 2.6 | 353.0 | 5.4 | 327.7 |
| 51.1 | 51.01 | 2.76 | -0.41 | 2.8 | 351.6 | 5.6 | 333.6 |
| 53.1 | 53.00 | 2.93 | -0.51 | 3.0 | 350.1 | 5.8 | 329.0 |
| 55.1 | 54.98 | 3.13 | -0.64 | 3.2 | 348.5 | 6.6 | 330.2 |
| 56.8 | 56.67 | 3.31 | -0.75 | 3.4 | 347.3 | 7.3 | 329.5 |



GAMMA-NEUTRON

COMPANY : PINE VALLEY COAL LTD.
 WELL : WRH-96-016
 LOCATION/FIELD : WILLOW CREEK PROJECT
 COUNTY : PINE PASS
 STATE : BRITISH COLUMBIA

OTHER SERVICES:
 9055
 9030

SECTION : TOWNSHIP : RANGE :

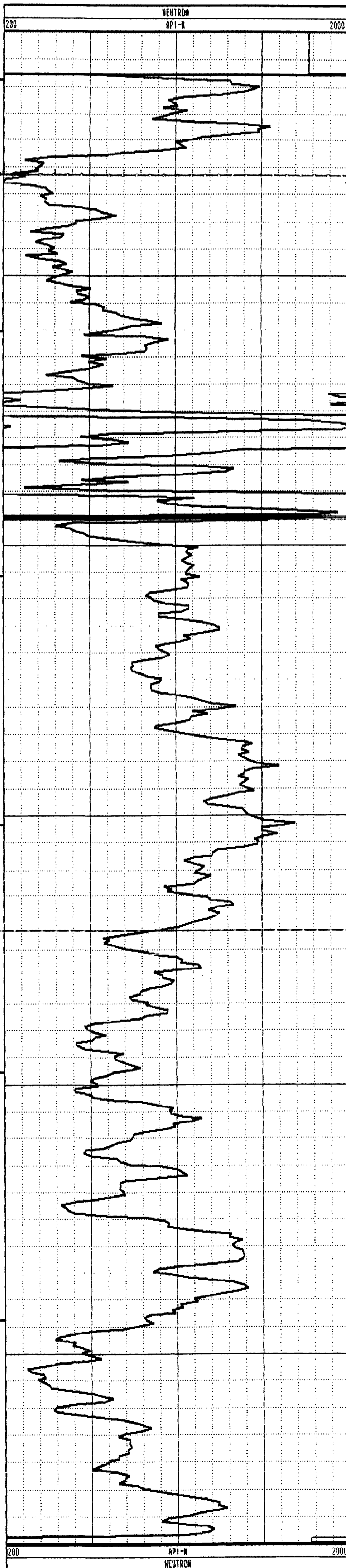
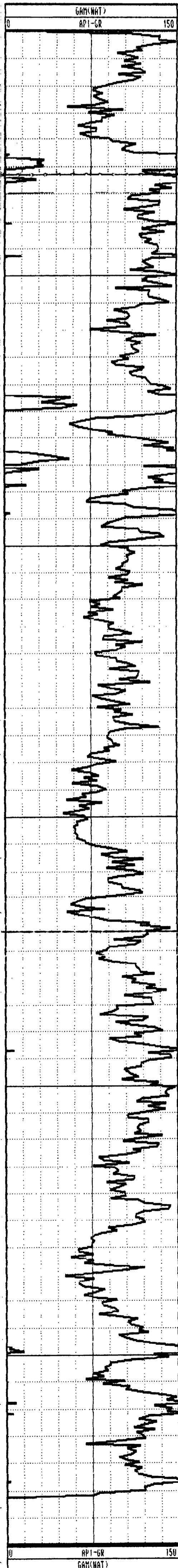
DATE : 03/14/96 PERMANENT DATUM : GROUND ELEVATIONS
 DEPTH DRILLER : 57 ELEV. PERM. DATUM: GROUND KB :
 LOG BOTTOM : 57.10 LOG MEASURED FROM: GL DF :
 LOG TOP : 1.10 DRL MEASURED FROM: GL GL :

CASING DRILLER : 1 LOGGING UNIT : 9603
 CASING TYPE : PVC FIELD OFFICE : CALGARY, A.B
 CASING THICKNESS: - RECORDED BY : B. BOONE

BIT SIZE : 14 BORFHOLE FLUID : H2O/AIR FILE : ORIGINAL
 MAGNETIC DECL. : 23 RM : TYPE : 9055A
 MATRIX DENSITY : 2.65 RM TEMPERATURE : LOG : 7
 FLUID DENSITY : 1.1 MATRIX DELTA T : PLOT : SMOKY 7
 NEUTRON MATRIX : SANDSTONE FLUID DELTA T : THRESH: 10000

REMARKS :
 OPEN HOLE
 VERTICAL

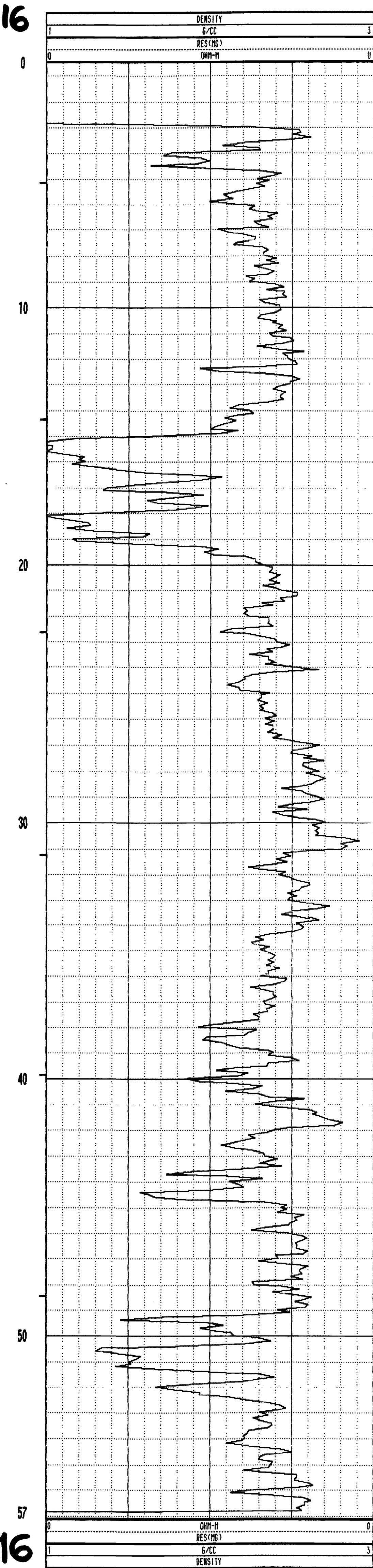
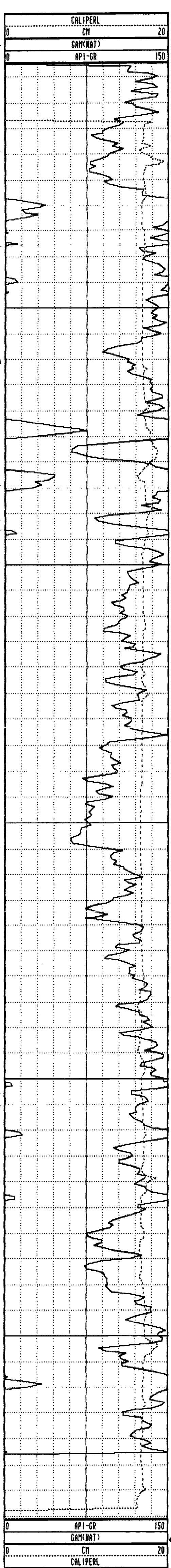
ALL SERVICES PROVIDED SUBJECT TO STANDARD TERMS AND CONDITIONS



GAMMA-RES-DENSITY

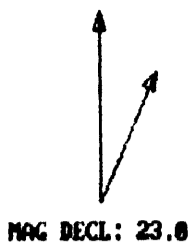
| | | | |
|-------------------|-------------------------|--------------------|---------------------------|
| COMPANY | : PINE VALLEY COAL LTD. | OTHER SERVICES: | |
| WELL | : WRH-96-016 | 9055 | |
| LOCATION/FIELD | : WILLOW CREEK PROJECT | 9030 | |
| COUNTY | : PINE PASS | | |
| STATE | : BRITISH COLUMBIA | | |
| SECTION | : TOWNSHIP | | RANGE : |
| DATE | : 03/14/96 | PERMANENT DATUM | : GROUND ELEVATIONS |
| DEPTH DRILLER | : 57 | ELEV. PERM. DATUM: | : GROUND KB : |
| LOG BOTTOM | : 57.20 | LOG MEASURED FROM: | : GL DF : |
| LOG TOP | : 0.60 | DRL MEASURED FROM: | : GL GL : |
| CASING DRILLER | : 1 | LOGGING UNIT | : 9603 |
| CASING TYPE | : PVC | FIELD OFFICE | : CALGARY, A.B |
| CASING THICKNESS: | - | RECORDED BY | : B. BOONE |
| BIT SIZE | : 14 | BOREHOLE FLUID | : H2O/AIR FILE : ORIGINAL |
| MAGNETIC DECL. | : 23 | RM | : TYPE : 9033AA |
| MATRIX DENSITY | : 2.65 | RM TEMPERATURE | : LOG : 9 |
| FLUID DENSITY | : 1.1 | MATRIX DELTA T | : PLOT : SMOKY 3 |
| NEUTRON MATRIX | : SANDSTONE | FLUID DELTA T | : THRESH: 10000 |
| REMARKS | : | | |
| OPEN HOLE | | | |
| VERTICAL | | | |

ALL SERVICES PROVIDED SUBJECT TO STANDARD TERMS AND CONDITIONS

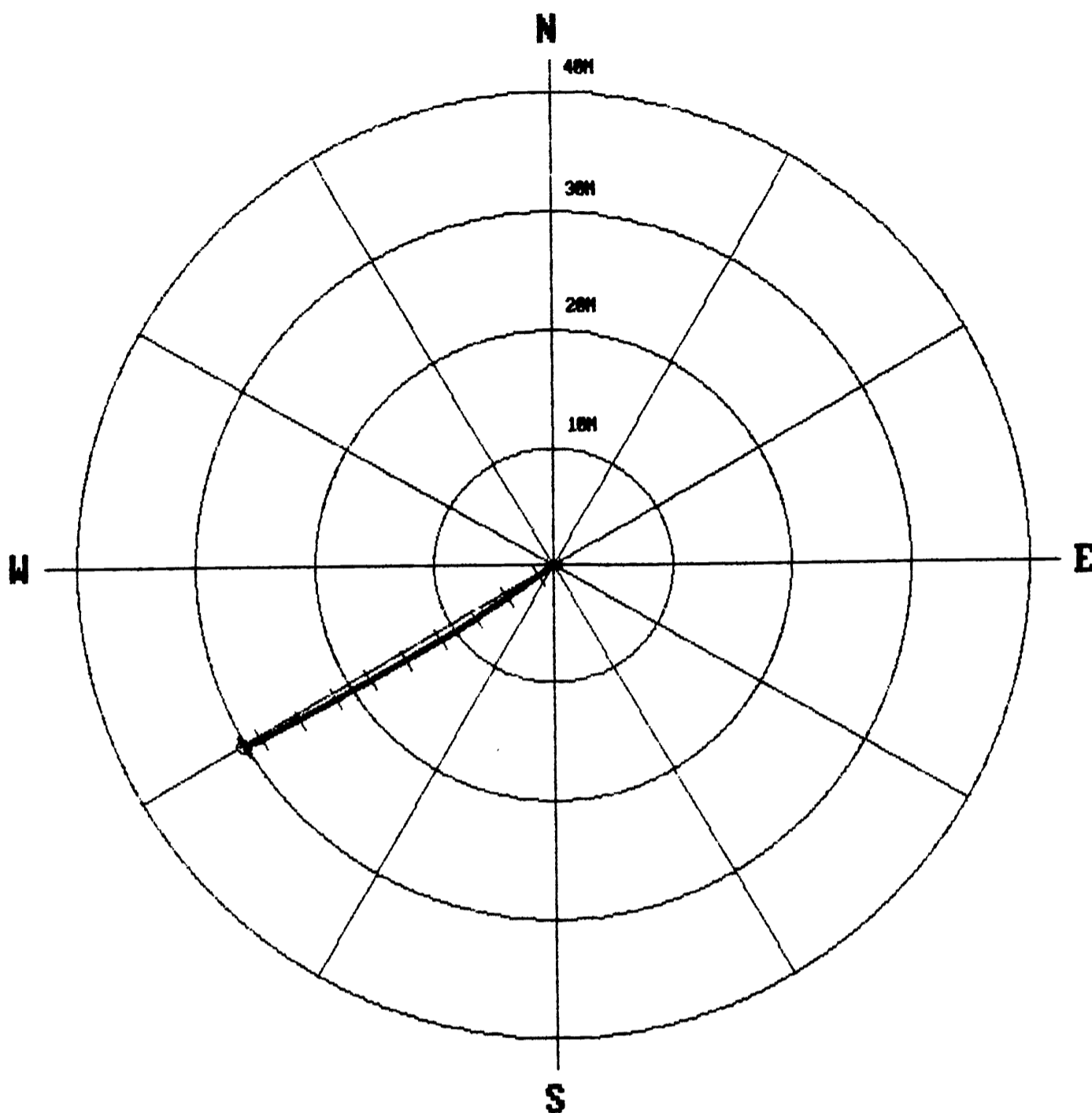


PLAN VIEW COMPU-LOG DEVIATION

CLIENT: PINE VALLEY COAL LTD.
 LOCATION: WILLOW CREEK PROJECT
 HOLE ID: WRH-96-017
 DATE OF LOG: 03/15/96
 PROBE: 9055A 58



SCALE: 5 M/CM
 TRUE DEPTH: 47.17 M
 AZIMUTH: 239.7
 DISTANCE: 30.2 M
 + = 5 M INCR
 O = BOTTOM OF HOLE



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

| | | | |
|--------------|-----------------------|-------------|----------------|
| CLIENT | : PINE VALLEY COAL LT | HOLE ID. | : WRH-96-017 |
| FIELD OFFICE | : CALGARY, A.B | DATE OF LOG | : 03/15/96 |
| DATA FROM | : | PROBE | : 9055A 58 |
| MAG. DECL. | : 23.000 | DEPTH UNITS | : METERS LUG 5 |

| CABLE DEPTH | TRUE DEPTH | NORTH DEV. | EAST DEV. | DISTANCE | AZIMUTH | SANGS | SANGB |
|-------------|------------|------------|-----------|----------|---------|-------|-------|
| 2.8 | 2.78 | -0.04 | -0.03 | 0.1 | 220.7 | 32.0 | 220.7 |
| 3.2 | 3.13 | -0.18 | -0.19 | 0.3 | 225.6 | 32.8 | 237.8 |
| 5.2 | 4.80 | -0.84 | -1.05 | 1.3 | 231.6 | 33.2 | 234.0 |
| 7.2 | 6.48 | -1.46 | -1.95 | 2.4 | 233.1 | 33.1 | 234.8 |
| 9.2 | 8.15 | -2.09 | -2.85 | 3.5 | 233.7 | 33.3 | 236.6 |
| 11.2 | 9.83 | -2.71 | -3.75 | 4.6 | 234.2 | 32.8 | 231.6 |
| 13.2 | 11.51 | -3.33 | -4.64 | 5.7 | 234.3 | 32.7 | 234.6 |
| 15.2 | 13.18 | -3.90 | -5.56 | 6.8 | 234.9 | 33.9 | 241.6 |
| 17.2 | 14.84 | -4.52 | -6.48 | 7.9 | 235.1 | 34.2 | 237.6 |
| 19.2 | 16.50 | -5.12 | -7.43 | 9.0 | 235.4 | 33.7 | 231.0 |
| 21.2 | 18.16 | -5.70 | -8.38 | 10.1 | 235.8 | 34.0 | 237.6 |
| 23.2 | 19.82 | -6.24 | -9.35 | 11.2 | 236.3 | 33.8 | 242.1 |
| 25.2 | 21.47 | -6.79 | -10.33 | 12.4 | 236.7 | 34.2 | 236.0 |
| 27.2 | 23.12 | -7.35 | -11.31 | 13.5 | 237.0 | 34.3 | 239.0 |
| 29.2 | 24.77 | -7.92 | -12.28 | 14.6 | 237.2 | 34.4 | 240.2 |
| 31.2 | 26.43 | -8.47 | -13.26 | 15.7 | 237.4 | 34.1 | 238.8 |
| 33.2 | 28.08 | -9.02 | -14.23 | 16.9 | 237.6 | 34.0 | 239.0 |
| 35.2 | 29.74 | -9.56 | -15.21 | 18.0 | 237.8 | 33.9 | 240.8 |
| 37.2 | 31.40 | -10.10 | -16.19 | 19.1 | 238.0 | 34.0 | 241.0 |
| 39.2 | 33.06 | -10.64 | -17.17 | 20.2 | 238.2 | 34.2 | 239.6 |
| 41.2 | 34.71 | -11.18 | -18.16 | 21.3 | 238.4 | 34.3 | 242.7 |
| 43.2 | 36.36 | -11.73 | -19.15 | 22.5 | 238.5 | 34.8 | 241.8 |
| 45.2 | 38.00 | -12.25 | -20.16 | 23.6 | 238.7 | 34.8 | 241.7 |
| 47.2 | 39.64 | -12.80 | -21.17 | 24.7 | 238.8 | 34.8 | 243.3 |
| 49.2 | 41.27 | -13.31 | -22.20 | 25.9 | 239.1 | 36.0 | 250.8 |
| 51.2 | 42.89 | -13.83 | -23.25 | 27.1 | 239.2 | 36.0 | 246.0 |
| 53.2 | 44.50 | -14.39 | -24.28 | 28.2 | 239.3 | 35.8 | 240.8 |
| 55.2 | 46.12 | -14.90 | -25.34 | 29.4 | 239.5 | 35.8 | 240.0 |
| 56.5 | 47.17 | -15.19 | -26.05 | 30.2 | 239.7 | 36.2 | 249.5 |



Century GEOPHYSICAL CORP.

GAMMA-NEUTRON

COMPANY : PINE VALLEY COAL LTD.
 WELL : WRH-96-017
 LOCATION/FIELD : WILLOW CREEK PROJECT
 COUNTY : PINE PASS
 STATE : BRITISH COLUMBIA
 SECTION : TOWNSHIP :

OTHER SERVICES:
 9055
 9030

DATE : 03/15/96 PERMANENT DATUM : GROUND ELEVATIONS
 DEPTH DRILLER : 57 ELEV. PERM. DATUM: GROUND KB :
 LOG BOTTOM : 56.80 LOG MEASURED FROM: GL DT :
 LOG TOP : 1.20 DRL MEASURED FROM: GL GL :

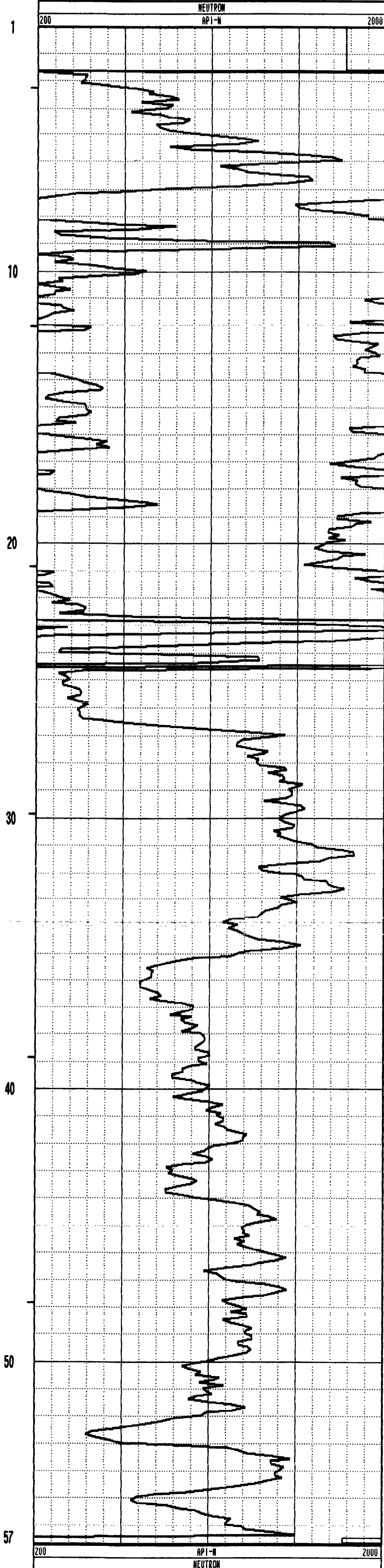
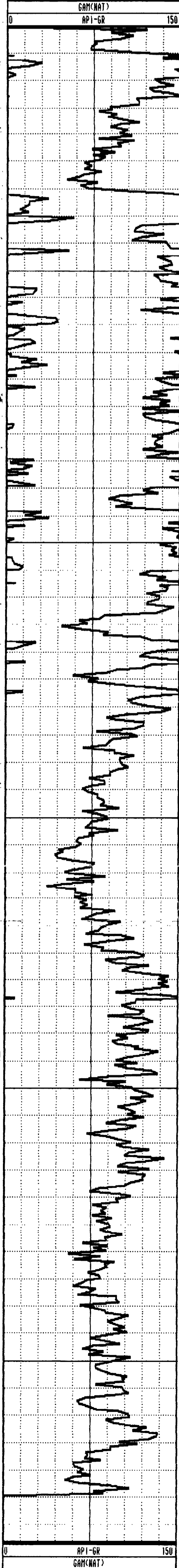
CASING DRILLER : 1 LOGGING UNIT : 9603
 CASING TYPE : PVC FIELD OFFICE : CALGARY, A.B
 CASING THICKNESS: - RECORDED BY : B. BOONE

BIT SIZE : 14 BOREHOLE FLUID : H2O/AIR FILE : ORIGINAL
 MAGNETIC DECL. : 23 RM : TYPE : 9055A
 MATRIX DENSITY : 2.65 RM TEMPERATURE : LOG : 4
 FLUID DENSITY : 1.1 MATRIX DELTA T : PLOT : SMOKY 7
 NEUTRON MATRIX : SANDSTONE FLUID DELTA T : THRESH: 10000

REMARKS :

OPEN HOLE
 HOLE DEVIATED TO 60 DEG.

ALL SERVICES PROVIDED SUBJECT TO STANDARD TERMS AND CONDITIONS



GAMMA-RES-DENSITY

COMPANY : PINE VALLEY COAL LTD.
 WELL : WRH-96-017
 LOCATION/FIELD : WILLOW CREEK PROJECT
 COUNTY : PINE PASS
 STATE : BRITISH COLUMBIA
 SECTION :

| |
|-----------------|
| OTHER SERVICES: |
| 9055 |
| 9030 |

TOWNSHIP : _____ RANGE : _____

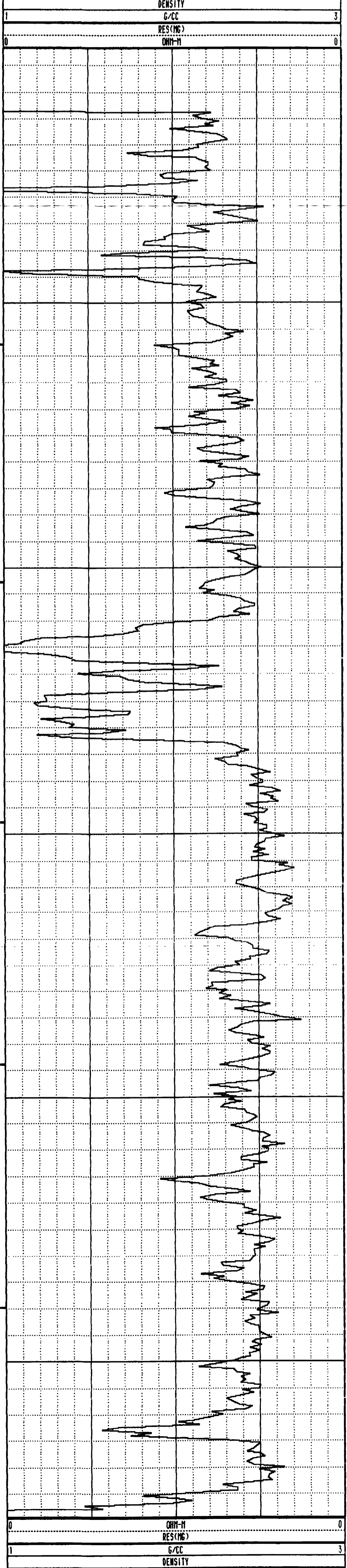
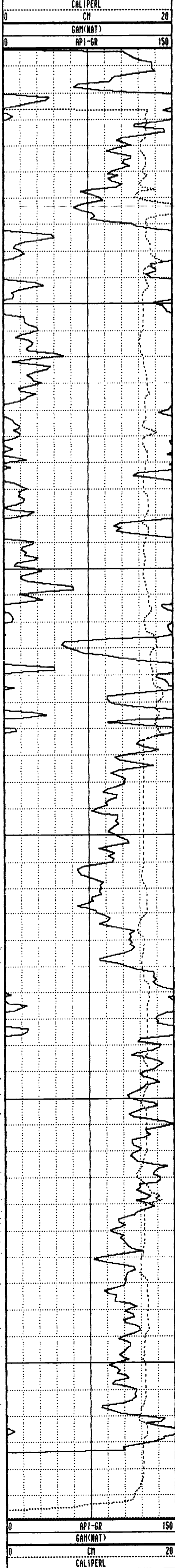
DATE : 03/15/96 PERMANENT DATUM : GROUND ELEVATIONS
 DEPTH DRILLER : 57 ELEV. PERM. DATUM: GROUND KB :
 LOG BOTTOM : 56.00 LOG MEASURED FROM: GL DF :
 LOG TOP : 0.50 DRL MEASURED FROM: GL GL :

CASING DRILLER : 1 LOGGING UNIT : 9603
 CASING TYPE : PVC FIELD OFFICE : CALGARY, A.B
 CASING THICKNESS: - RECORDED BY : B. BOONE

BIT SIZE : 14 BOREHOLE FLUID : H2O/AIR FILE : ORIGINAL
 MAGNETIC DECL. : 23 RM : TYPE : 9033AA
 MATRIX DENSITY : 2.65 RM TEMPERATURE : LOG : 6
 FLUID DENSITY : 1.1 MATRIX DELTA T : PLOT : SMOKY 3
 NEUTRON MATRIX : SANDSTONE FLUID DELTA T : THRESH: 10000

REMARKS :
 OPEN HOLE
 HOLE DEVIATED TO 60 DEG.

ALL SERVICES PROVIDED SUBJECT TO STANDARD TERMS AND CONDITIONS

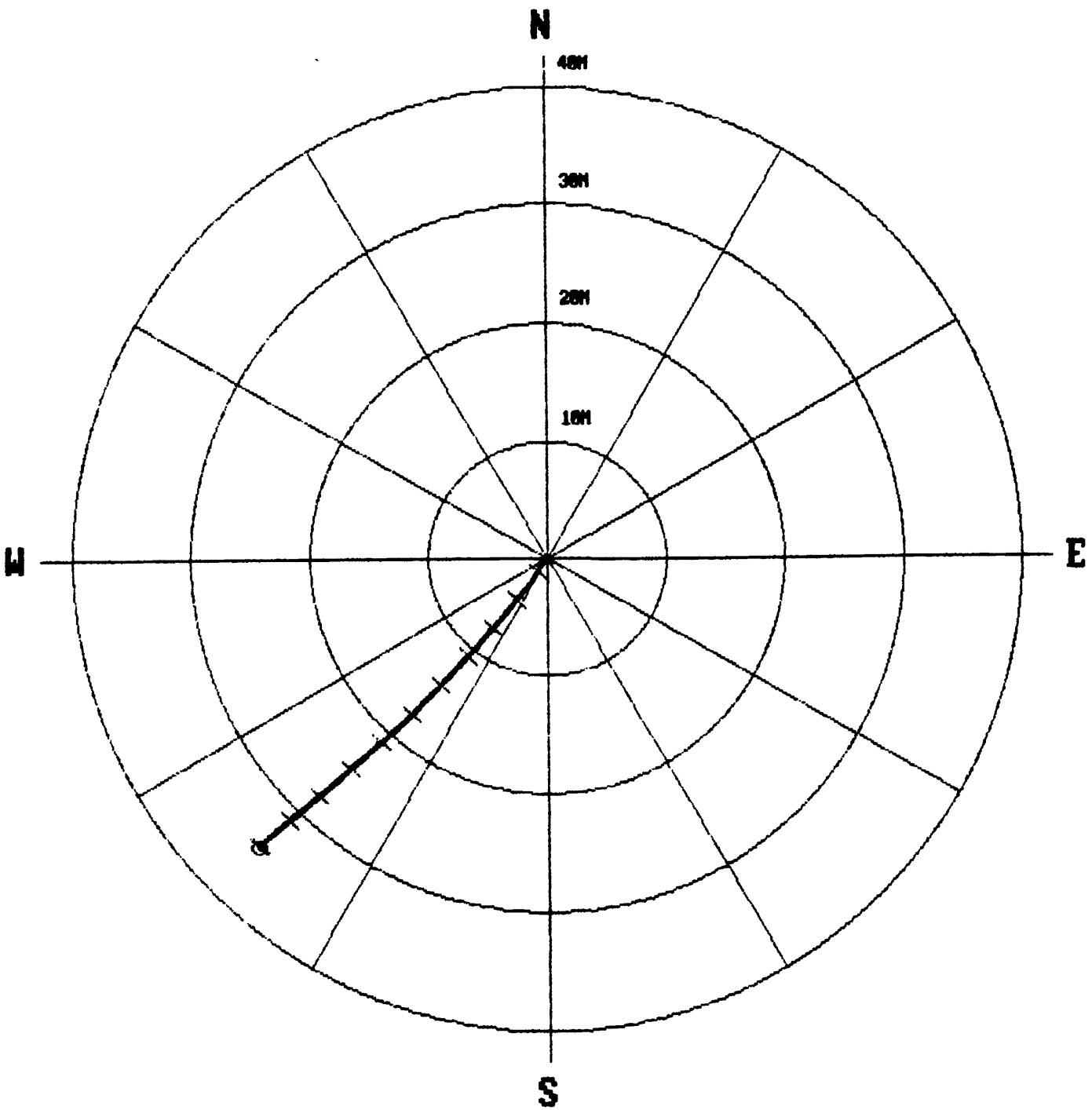


PLAN VIEW COMPU-LOG DEVIATION

CLIENT: PINE VALLEY COAL LTD.
 LOCATION: WILLOW CREEK PROJECT
 HOLE ID: WRH-96-018
 DATE OF LOG: 03/16/96
 PROBE: 9055A 58



SCALE: 5 M/CM
 TRUE DEPTH: 55.28 M
 AZIMUTH: 225.1
 DISTANCE: 34.4 M
 + = 5 M INCR
 O = BOTTOM OF HOLE



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

| | |
|------------------------------|----------------------------|
| CLIENT : PINE VALLEY COAL LT | HOLE ID. : WRH-96-018 |
| FIELD OFFICE : CALGARY, A.B | DATE OF LOG : 03/16/96 |
| DATA FROM : | PROBE : 9055A 58 |
| MAG. DECL. : 23.000 | DEPTH UNITS : METERS LOG 2 |

| CABLE DEPTH | TRUE DEPTH | NORTH DEV. | EAST DEV. | DISTANCE | AZIMUTH | SANG | SANGB |
|-------------|------------|------------|-----------|----------|---------|------|-------|
| 2.8 | 2.79 | -0.04 | -0.03 | 0.1 | 214.5 | 30.7 | 214.5 |
| 3.2 | 3.13 | -0.20 | -0.15 | 0.3 | 217.1 | 30.6 | 217.9 |
| 5.2 | 4.84 | -1.05 | -0.74 | 1.3 | 215.3 | 33.0 | 232.4 |
| 7.2 | 6.55 | -1.89 | -1.26 | 2.3 | 213.7 | 32.2 | 219.0 |
| 9.2 | 8.25 | -2.72 | -1.90 | 3.3 | 214.9 | 31.6 | 219.0 |
| 11.2 | 9.96 | -3.53 | -2.54 | 4.4 | 215.8 | 31.1 | 213.1 |
| 13.2 | 11.65 | -4.34 | -3.23 | 5.4 | 216.6 | 31.8 | 219.2 |
| 15.2 | 13.35 | -5.16 | -3.90 | 6.5 | 217.1 | 31.8 | 219.5 |
| 17.2 | 15.05 | -5.95 | -4.58 | 7.5 | 217.6 | 32.0 | 225.5 |
| 19.2 | 16.73 | -6.75 | -5.31 | 8.6 | 218.2 | 33.0 | 222.7 |
| 21.2 | 18.42 | -7.57 | -6.00 | 9.7 | 218.4 | 34.1 | 243.4 |
| 23.2 | 20.09 | -8.37 | -6.74 | 10.8 | 218.9 | 33.2 | 222.8 |
| 25.2 | 21.76 | -9.16 | -7.51 | 11.8 | 219.4 | 33.8 | 221.4 |
| 27.2 | 23.42 | -9.95 | -8.28 | 12.9 | 219.8 | 33.9 | 226.0 |
| 29.2 | 25.09 | -10.74 | -9.06 | 14.1 | 220.2 | 33.8 | 225.0 |
| 31.2 | 26.74 | -11.54 | -9.84 | 15.2 | 220.5 | 33.9 | 227.7 |
| 33.2 | 28.39 | -12.34 | -10.65 | 16.3 | 220.8 | 35.1 | 217.1 |
| 35.2 | 30.04 | -13.15 | -11.44 | 17.4 | 221.0 | 34.7 | 232.2 |
| 37.2 | 31.67 | -13.94 | -12.28 | 18.6 | 221.4 | 34.7 | 226.6 |
| 39.2 | 33.31 | -14.70 | -13.12 | 19.7 | 221.7 | 35.3 | 225.4 |
| 41.2 | 34.95 | -15.45 | -14.00 | 20.8 | 222.2 | 35.8 | 240.4 |
| 43.2 | 36.59 | -16.20 | -14.87 | 22.0 | 222.6 | 34.8 | 225.9 |
| 45.2 | 38.23 | -16.95 | -15.72 | 23.1 | 222.8 | 34.0 | 230.7 |
| 47.2 | 39.88 | -17.69 | -16.58 | 24.2 | 223.2 | 34.6 | 231.8 |
| 49.2 | 41.53 | -18.44 | -17.43 | 25.4 | 223.4 | 34.6 | 229.9 |
| 51.2 | 43.18 | -19.18 | -18.28 | 26.5 | 223.6 | 34.2 | 228.7 |
| 53.2 | 44.83 | -19.89 | -19.14 | 27.6 | 223.9 | 34.1 | 233.2 |
| 55.2 | 46.49 | -20.60 | -20.01 | 28.7 | 224.2 | 33.6 | 230.8 |
| 57.2 | 48.16 | -21.30 | -20.86 | 29.8 | 224.4 | 33.7 | 234.0 |
| 59.2 | 49.83 | -21.98 | -21.72 | 30.9 | 224.7 | 33.1 | 231.9 |
| 61.2 | 51.51 | -22.68 | -22.56 | 32.0 | 224.9 | 32.8 | 231.8 |
| 63.2 | 53.18 | -23.38 | -23.40 | 33.1 | 225.0 | 33.5 | 228.1 |
| 65.2 | 54.86 | -24.08 | -24.23 | 34.2 | 225.2 | 32.6 | 228.5 |
| 65.7 | 55.28 | -24.28 | -24.41 | 34.4 | 225.1 | 33.0 | 225.8 |



Century GEOPHYSICAL CORP.

GAMMA-NEUTRON

COMPANY : PINE VALLEY COAL LTD.
 WELL : WRH-96-018
 LOCATION/FIELD : WILLOW CREEK PROJECT
 COUNTY : PINE PASS
 STATE : BRITISH COLUMBIA
 SECTION : TOWNSHIP : RANGE :

OTHER SERVICES:
 9055
 9030

DATE : 03/16/96 PERMANENT DATUM : GROUND ELEVATIONS
 DEPTH DRILLER : 69 ELEV. PERM. DATUM: GROUND KB :
 LOG BOTTOM : 66.00 LOG MEASURED FROM: GL DT :
 LOG TOP : 1.20 DRL MEASURED FROM: GL GL :

CASING DRILLER : 1.5 LOGGING UNIT : 9603
 CASING TYPE : PVC FIELD OFFICE : CALGARY, A.B
 CASING THICKNESS: - RECORDED BY : B. BOONE

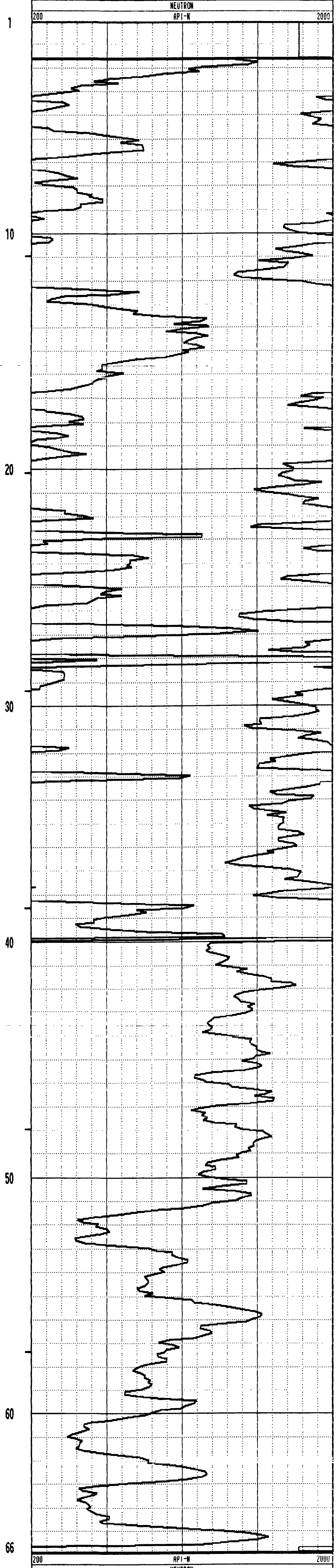
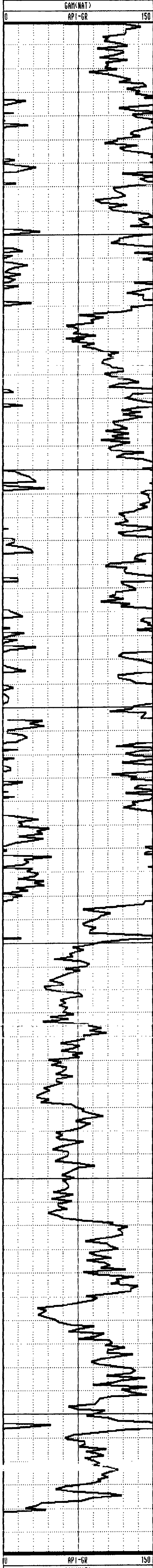
BIT SIZE : 14 BOREHOLE FLUID : H2O/AIP FILE : ORIGINAL
 MAGNETIC DECL. : 23 RM : TYPE : 9055A
 MATRIX DENSITY : 2.65 RM TEMPERATURE : LOG : 0
 FLUID DENSITY : 1.1 MATRIX DELTA T : PLOT : SMOKY 7
 NEUTRON MATRIX : SANDSTONE FLUID DELTA T : THRESH: 10000

REMARKS :

OPEN HOLE

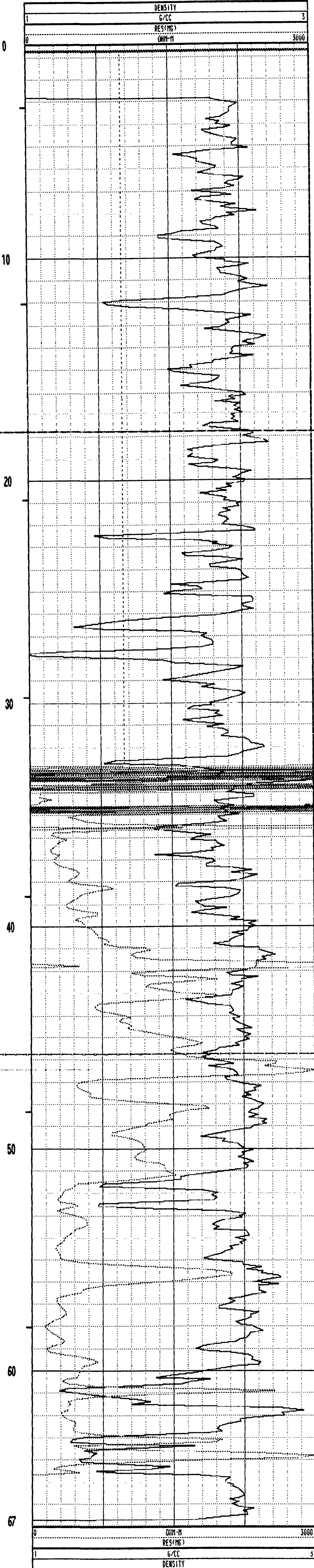
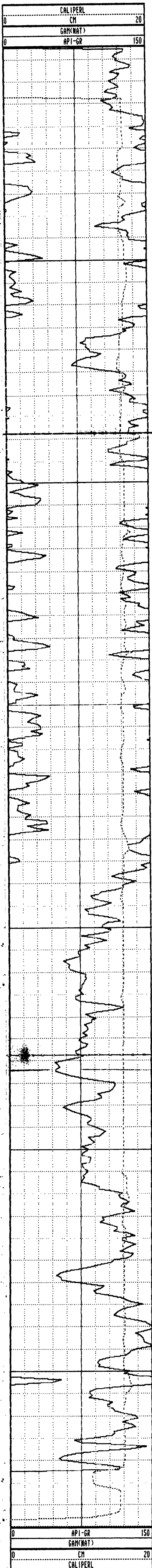
HOLE DEVIATED TO 60 DEG.

ALL SERVICES PROVIDED SUBJECT TO STANDARD TERMS AND CONDITIONS



GAMMA-RES-DENSITY

| | | | |
|--|-------------------------|-------------------|---------------------------|
| COMPANY | : PINE VALLEY COAL LTD. | OTHER SERVICES: | |
| WELL | : WRH-96-018 | 9055 | |
| LOCATION/FIELD | : WILLOW CREEK PROJECT | 9030 | |
| COUNTY | : PINE PASS | | |
| STATE | : BRITISH COLUMBIA | | |
| SECTION | : TOWNSHIP | | RANGE : |
| DATE | : 03/16/96 | PERMANENT DATUM | : GROUND ELEVATIONS |
| DEPTH DRILLER | : 69 | ELEV. PERM. DATUM | : GROUND KB : |
| LOG BOTTOM | : 67.10 | LOG MEASURED FROM | : GL DT : |
| LOG TOP | : 0.60 | DRL MEASURED FROM | : GL : |
| CASING DRILLER | : 1.5 | LOGGING UNIT | : 9603 |
| CASING TYPE | : PVC | FIELD OFFICE | : CALGARY, A.B |
| CASING THICKNESS | : - | RECORDED BY | : B. BOONE |
| RIT SIZE | : 14 | BORHOLE FLUID | : H2O/AIR FILE : ORIGINAL |
| MAGNETIC DECL. | : 23 | RM | : TYPE : 9033AA |
| MATRIX DENSITY | : 2.65 | RM TEMPERATURE | : LOG : 1 |
| FLUID DENSITY | : 1.1 | MATRIX DELTA T | : PLOT : SMOKY 3 |
| NEUTRON MATRIX | : SANDSTONE | FLUID DELTA T | : THRESH: 10000 |
| REMARKS | : | | |
| OPEN HOLE | : | | |
| HOLE DEVIATED TO 60 DEG. | | | |
| ALL SERVICES PROVIDED SUBJECT TO STANDARD TERMS AND CONDITIONS | | | |

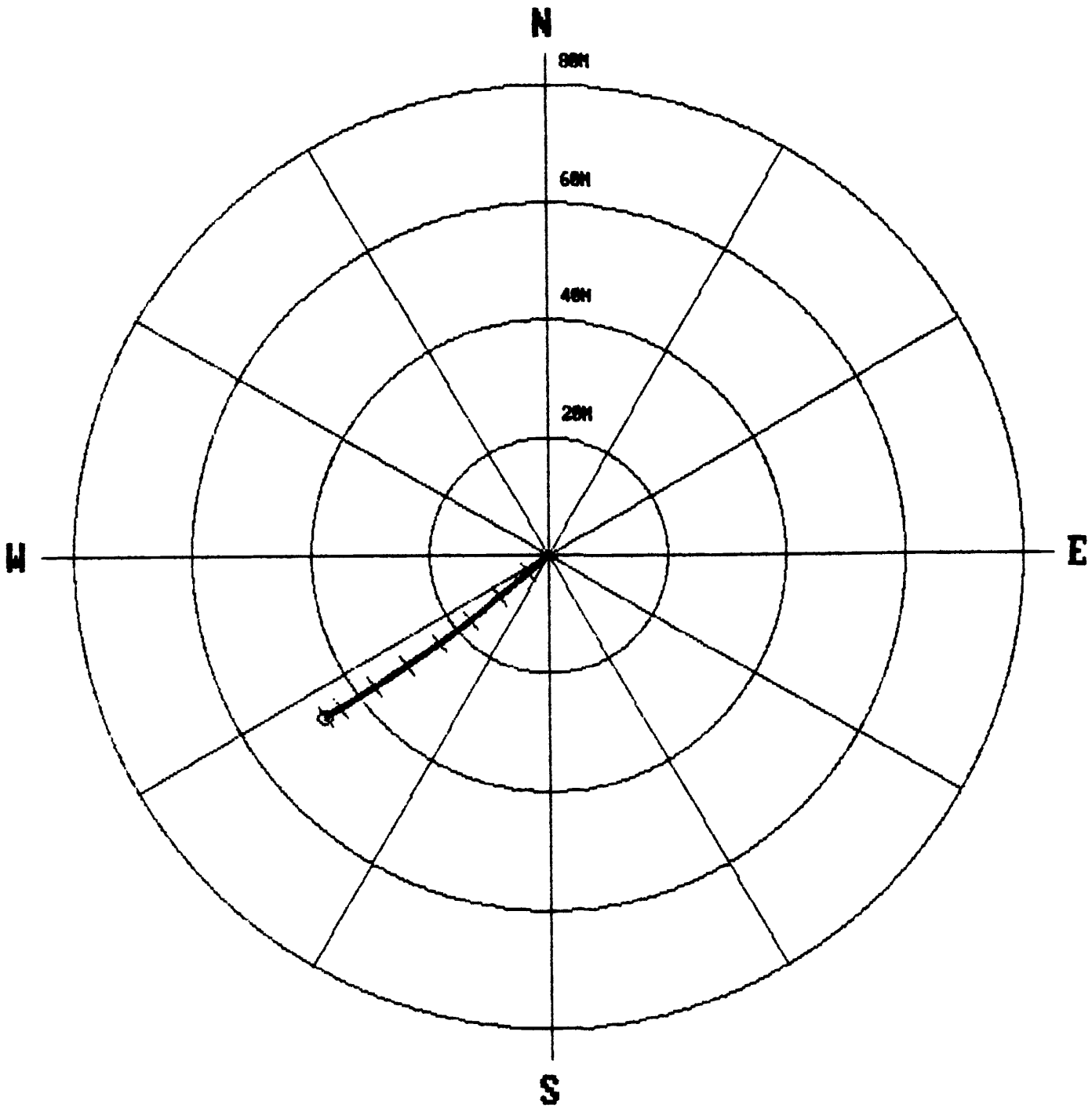


PLAN VIEW COMPU-LOG DEVIATION

CLIENT: PINE VALLEY COAL LTD.
 LOCATION: MILLON CREEK PROJECT
 HOLE ID: WRH-96-019
 DATE OF LOG: 03/17/96
 PROBE: 9055A 58



SCALE: 10 M/CM
 TRUE DEPTH: 74.47 M
 AZIMUTH: 234.4
 DISTANCE: 46.4 M
 + = 10 M INCR
 O = BOTTOM OF HOLE



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

CLIENT : PINE VALLEY COAL LT HOLE ID. : WRH-96-019
 FIELD OFFICE : CALGARY, A.B DATE OF LOG : 03/17/96
 DATA FROM : PROBE : 9055A , 58
 MAG. DECL. : 23.000 DEPTH UNITS : METERS LOG 4

| CABLE DEPTH | TRUE DEPTH | NORTH DEV. | EAST DEV. | DISTANCE | AZIMUTH | SANG | SANGB |
|-------------|------------|------------|-----------|----------|---------|------|-------|
| 2.8 | 2.79 | -0.03 | -0.04 | 0.1 | 228.5 | 30.6 | 228.5 |
| 6.2 | 5.70 | -1.19 | -1.35 | 1.8 | 228.5 | 31.1 | 229.0 |
| 11.2 | 9.97 | -2.85 | -3.36 | 4.4 | 229.7 | 31.7 | 231.0 |
| 16.2 | 14.21 | -4.52 | -5.40 | 7.0 | 230.1 | 32.6 | 226.1 |
| 21.2 | 18.43 | -6.24 | -7.46 | 9.7 | 230.1 | 31.8 | 231.9 |
| 26.2 | 22.66 | -7.84 | -9.56 | 12.4 | 230.6 | 33.1 | 236.9 |
| 31.2 | 26.85 | -9.64 | -11.51 | 15.0 | 230.1 | 33.2 | 230.1 |
| 36.2 | 31.03 | -11.33 | -13.67 | 17.8 | 230.4 | 33.3 | 233.6 |
| 41.2 | 35.22 | -12.97 | -15.85 | 20.5 | 230.7 | 34.3 | 235.0 |
| 46.2 | 39.40 | -14.58 | -18.08 | 23.2 | 231.1 | 33.4 | 235.8 |
| 51.2 | 43.55 | -16.16 | -20.35 | 26.0 | 231.5 | 33.7 | 236.9 |
| 56.2 | 47.71 | -17.70 | -22.66 | 28.8 | 232.0 | 33.2 | 236.8 |
| 61.2 | 51.88 | -19.25 | -24.95 | 31.5 | 232.4 | 33.2 | 236.4 |
| 66.2 | 56.04 | -20.72 | -27.29 | 34.3 | 232.8 | 33.4 | 237.2 |
| 71.2 | 60.22 | -22.20 | -29.60 | 37.0 | 233.1 | 33.7 | 237.9 |
| 76.2 | 64.37 | -23.65 | -31.97 | 39.8 | 233.5 | 33.8 | 238.7 |
| 81.2 | 68.54 | -25.08 | -34.33 | 42.5 | 233.8 | 32.5 | 238.4 |
| 86.2 | 72.72 | -26.42 | -36.66 | 45.2 | 234.2 | 33.5 | 237.2 |
| 88.3 | 74.47 | -27.01 | -37.67 | 46.4 | 234.4 | 33.8 | 242.7 |



GAMMA-NEUTRON

COMPANY : PINE VALLEY COAL LTD.
 WELL : WRH-96-019
 LOCATION/FIELD : WILLOW CREEK PROJECT
 COUNTY : FINE PASS
 STATE : BRITISH COLUMBIA
 SECTION : TOWNSHIP :

OTHER SERVICES:
 9055
 9030

DATE : 03/17/96 PERMANENT DATUM : GROUND ELEVATIONS

DEPTH DRILLER : 89 ELEV. PERM. DATUM: GROUND KB :

LOG BOTTOM : 88.60 LOG MEASURED FROM: GL DF :

LOG TOP : 1.20 DRL MEASURED FROM: GL CL :

CASING DRILLER : 1.5 LOGGING UNIT : 9603

CASING TYPE : PVC FIELD OFFICE : CALGARY, A.B

CASING THICKNESS: 0.65 RECORDED BY : D. BOONE

BIT SIZE : 14 BOREHOLE FLUID : H2O/ATR FILE : ORIGINAL

MAGNETIC DECL. : 23 RM : TYPE : 9055A

MATRIX DENSITY : 2.65 RM TEMPERATURE : LOG : 2

FLUID DENSITY : 1.1 MATRIX DELTA T : PLOT : SMOKY 7

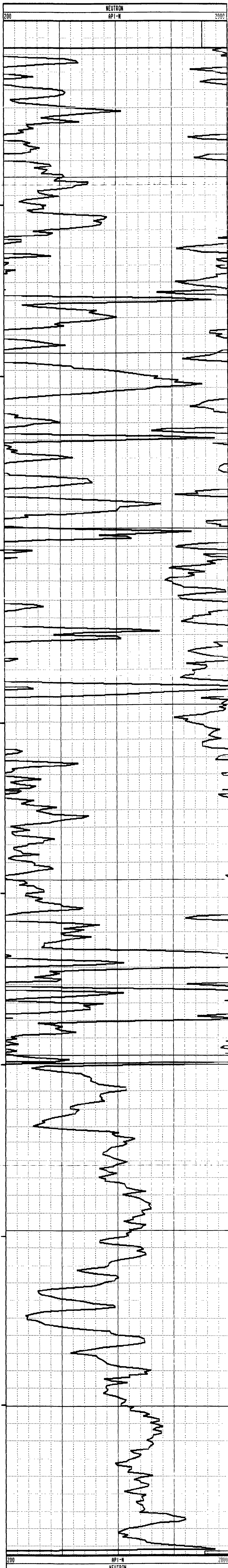
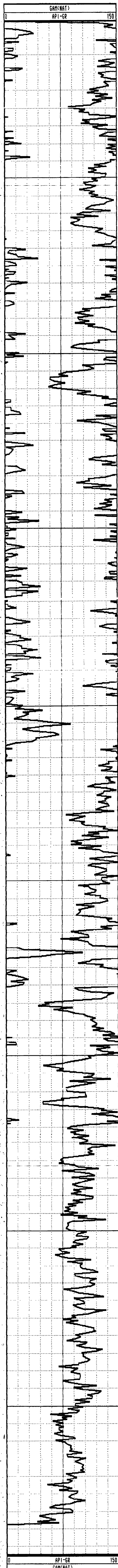
NEUTRON MATRIX : SANDSTONE FLUID DELTA T : THRESH: 10000

REMARKS :

OPEN HOLE

HOLE DEVIATED TO 60 DEG.

ALL SERVICES PROVIDED SUBJECT TO STANDARD TERMS AND CONDITIONS



GAMMA-RES-DENSITY

COMPANY : PINE VALLEY COAL LTD.
 WELL : WRH-96-019
 LOCATION/FIELD : WILLOW CREEK PROJECT
 COUNTY : PINE PASS
 STATE : BRITISH COLUMBIA
 SECTION : TOWNSHIP : RANGE :

OTHER SERVICES:
 9055
 9030

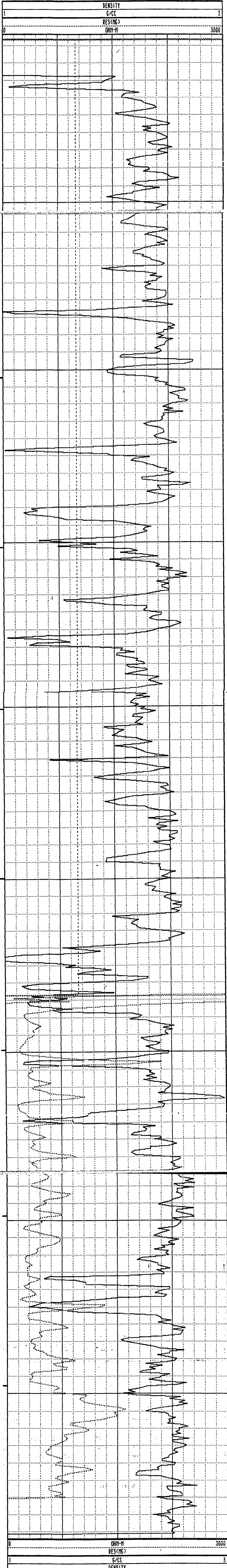
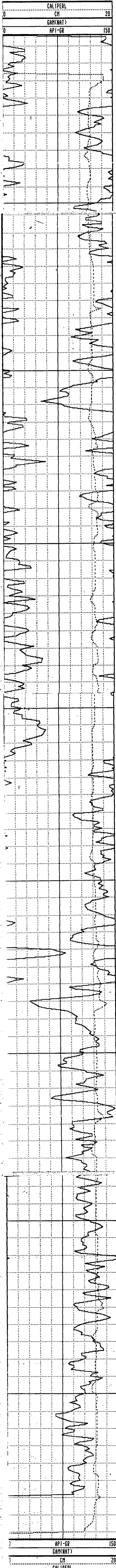
DATE : 03/17/96 PERMANENT DATUM : GROUND ELEVATIONS
 DEPTH DRILLER : 89 ELEV. PERM. DATUM: GROUND KB :
 LOG BOTTOM : 88.50 LOG MEASURED FROM: GL DF :
 LOG TOP : 0.50 DRL MEASURED FROM: GL GL :

CASING DRILLER : 1.5 LOGGING UNIT : 9603
 CASING TYPE : PVC FIELD OFFICE : CALGARY, A.B
 CASING THICKNESS: 0.65 RECORDED BY : B. BOONE

BIT SIZE : 14 BOREHOLE FLUID : H2O/AIR FILE : ORIGINAL
 MAGNETIC DECL. : 23 RM TYPE : 9033AA
 MATRIX DENSITY : 2.65 RM TEMPERATURE : LOG : 3
 FLUID DENSITY : 1.1 MATRIX DELTA T : PLOT : SMOKY 3
 NEUTRON MATRIX : SANDSTONE FLUID DELTA T : THRESH: 10000
 REMARKS :

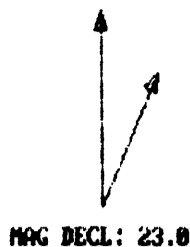
OPEN HOLE
 HOLE DEVIATED TO 60 DEG.

ALL SERVICES PROVIDED SUBJECT TO STANDARD TERMS AND CONDITIONS

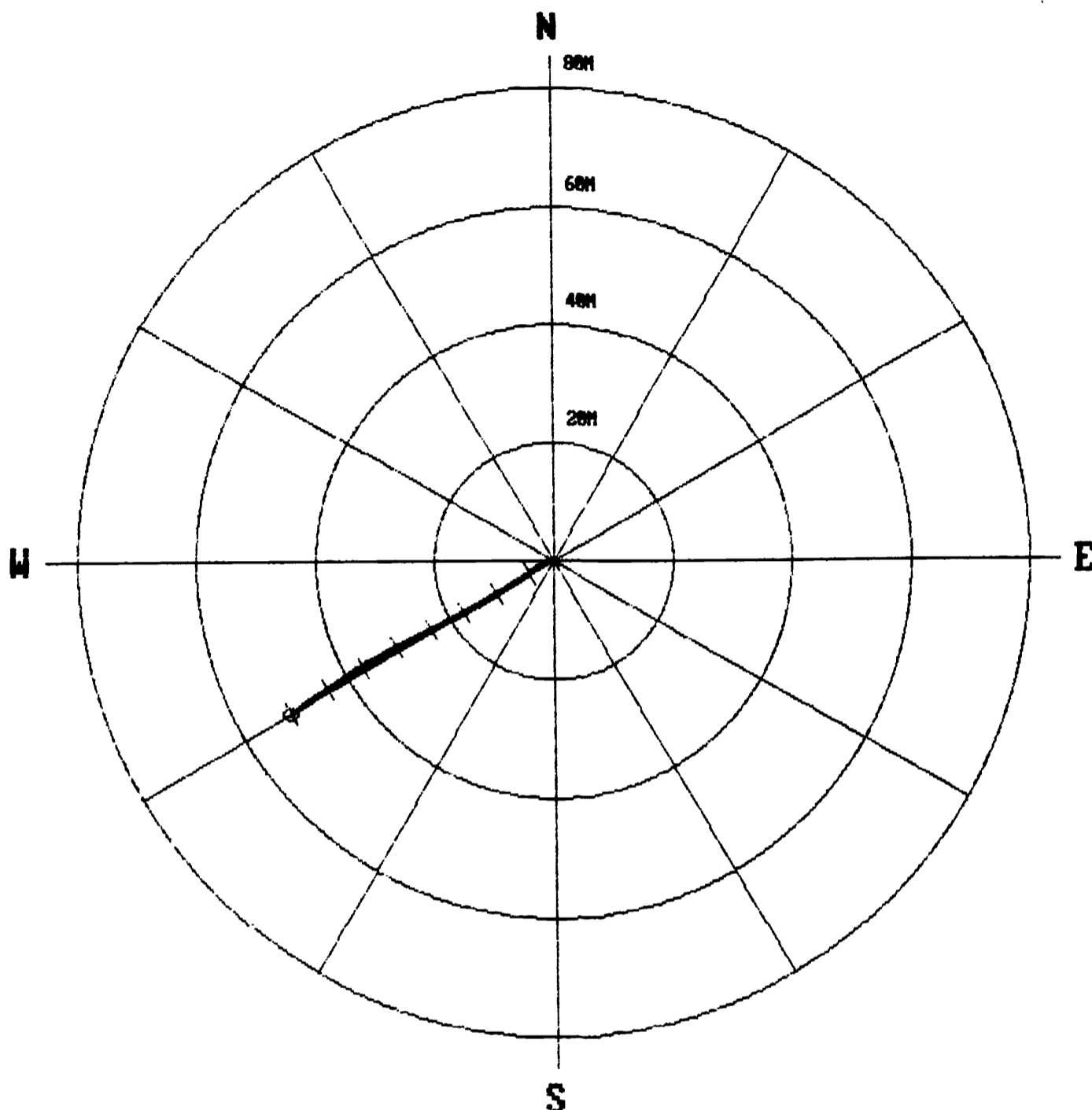


PLAN VIEW COMPU-LOG DEVIATION

CLIENT: PINE VALLEY COAL LTD.
 LOCATION: WILLOW CREEK PROJECT
 HOLE ID: WRH-96-020
 DATE OF LOG: 03/18/96
 PROBE: 9055A 58



SCALE: 10 M/CM
 TRUE DEPTH: 79.87 M
 AZIMUTH: 240.2
 DISTANCE: 51.0 M
 + = 10 M INCR
 O = BOTTOM OF HOLE



* * * * * LUMPY-LOG - VERTICAL DEVIATION * * * * *

| | | | |
|--------------|-----------------------|-------------|----------------|
| CLIENT | : PINE VALLEY COAL LT | HOLE ID. | : WRH-96-020 |
| FIELD OFFICE | : CALGARY, A.B | DATE OF LOG | : 03/18/96 |
| DATA FROM | : | PROBE | : 9055A 58 |
| MAG. DECL. | : 23.000 | DEPTH UNITS | : METERS LOG 0 |

| CABLE DEPTH | TRUE DEPTH | NORTH DEV. | EAST DEV. | DISTANCE | AZIMUTH | SANG | SANGB |
|-------------|------------|------------|-----------|----------|---------|------|-------|
| 2.7 | 2.68 | 0.01 | -0.05 | 0.1 | 283.8 | 33.3 | 283.8 |
| 7.0 | 6.30 | -0.86 | -2.16 | 2.3 | 248.3 | 32.5 | 238.2 |
| 12.0 | 10.53 | -2.31 | -4.40 | 5.0 | 242.3 | 32.1 | 235.7 |
| 17.0 | 14.75 | -3.76 | -6.65 | 7.6 | 240.5 | 32.8 | 226.2 |
| 22.0 | 18.97 | -5.15 | -8.93 | 10.3 | 240.0 | 32.6 | 237.6 |
| 27.0 | 23.17 | -6.55 | -11.25 | 13.0 | 239.8 | 32.5 | 238.3 |
| 32.0 | 27.40 | -7.83 | -13.59 | 15.7 | 240.1 | 32.4 | 242.9 |
| 37.0 | 31.63 | -9.08 | -15.94 | 18.4 | 240.3 | 32.2 | 241.9 |
| 42.0 | 35.87 | -10.32 | -18.29 | 21.0 | 240.6 | 32.2 | 241.6 |
| 47.0 | 40.08 | -11.58 | -20.58 | 23.6 | 240.6 | 32.7 | 225.4 |
| 52.0 | 44.25 | -12.70 | -23.02 | 26.3 | 241.1 | 33.2 | 246.5 |
| 57.0 | 48.41 | -13.90 | -25.51 | 29.1 | 241.4 | 33.1 | 242.7 |
| 62.0 | 52.59 | -15.16 | -27.93 | 31.8 | 241.5 | 30.4 | 244.6 |
| 67.0 | 56.75 | -16.47 | -30.37 | 34.5 | 241.5 | 33.6 | 242.6 |
| 72.0 | 60.88 | -17.88 | -32.71 | 37.3 | 241.3 | 34.4 | 244.8 |
| 77.0 | 64.99 | -19.39 | -35.07 | 40.1 | 241.1 | 35.0 | 238.3 |
| 82.0 | 69.08 | -20.93 | -37.48 | 42.9 | 240.8 | 35.4 | 237.1 |
| 87.0 | 73.10 | -22.58 | -39.93 | 45.9 | 240.5 | 36.7 | 233.8 |
| 92.0 | 77.10 | -24.21 | -42.45 | 48.9 | 240.3 | 37.5 | 234.7 |
| 95.5 | 79.87 | -25.35 | -44.23 | 51.0 | 240.2 | 37.8 | 236.2 |



GAMMA-NEUTRON

COMPANY : PINE VALLEY COAL LTD.
WELL : WRH-96-020
LOCATION/FIELD : WILLOW CREEK PROJECT
COUNTY : PINE PASS
STATE : BRITISH COLUMBIA
SECTION : TOWNSHIP

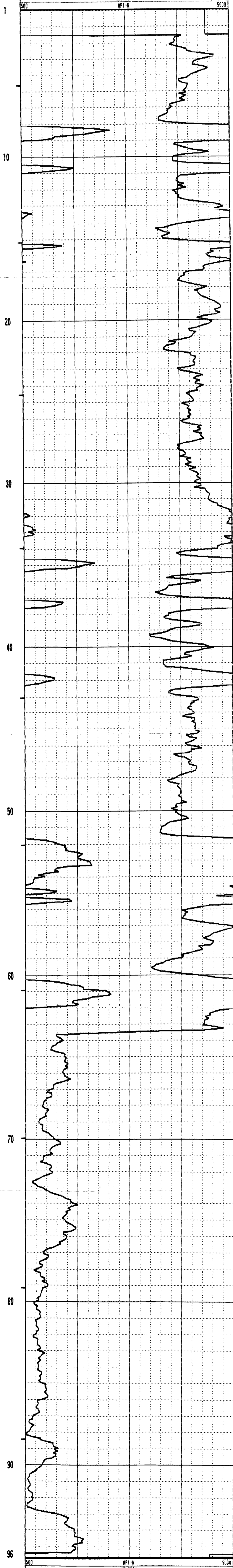
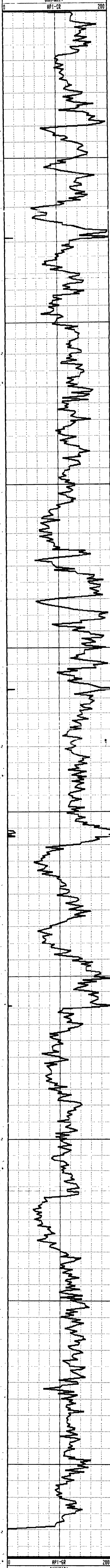
OTHER SERVICES:
9055
9030

DATE : 03/18/96 PERMANENT DATUM : GROUND ELEVATIONS
DEPTH DRILLER : 100 ELEV. PERM. DATUM: GROUND KB :
LOG BOTTOM : 25.00 LOG MEASURED FROM: GL DF :
LOG TOP : 1.10 DRL MEASURED FROM: GL GL :

CASING DRILLER : 2 LOGGING UNIT : 9603
CASING TYPE : PVC FIELD OFFICE : CALGARY, A.B
CASING THICKNESS: 0.65 RECORDED BY : B.DOONE

BIT SIZE : 14 BOREHOLE FLUID : H2O/AIR FILE : ORIGINAL
MAGNETIC DECL. : 23 RM : TYPE : 9055A
MATRIX DENSITY : 2.65 RM TEMPERATURE : LOG : 8
FLUID DENSITY : 1.1 MATRIX DELTA T : PLOT : SMOKY 7
NEUTRON MATRIX : SANDSTONE FLUID DELTA T : THRESH: 10000

REMARKS :
OPEN HOLE
HOLE DEVIATED TO 60 DEG.
ALL SERVICES PROVIDED SUBJECT TO STANDARD TERMS AND CONDITIONS



GAMMA-RES-DENSITY

COMPANY : PINE VALLEY COAL LTD.
 WFL : WRH-96-020
 LOCATION/FIELD : WILLOW CREEK PROJECT
 COUNTY : PINE PASS
 STATE : BRITISH COLUMBIA
 SECTION :

OTHER SERVICES:
 9055
 9030

TOWNSHIP : RANGE :

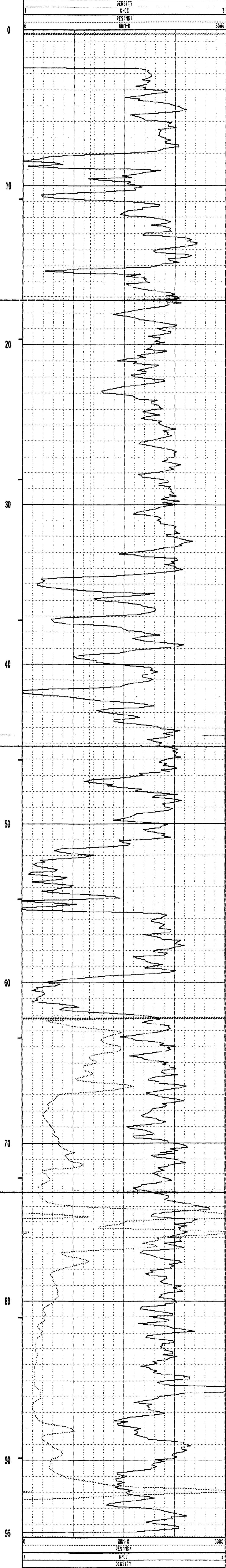
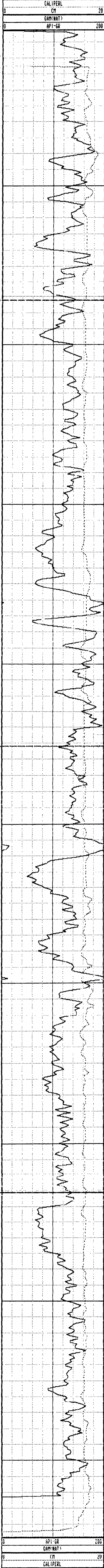
DATE : 03/18/96 PERMANENT DATUM : GROUND ELEVATIONS
 DEPTH DRILLER : 100 ELEV. PERM. DATUM: GROUND KB :
 LOG BOTTOM : 94.90 LOG MEASURED FROM: GL DT :
 LOG TOP : 0.40 DRL MEASURED FROM: GL CL :

CASING DRILLER : 2 LOGGING UNIT : 9603
 CASING TYPE : FUC FIELD OFFICE : CALGARY, A.B
 CASING THICKNESS: 0.65 RECORDED BY : B. BOONE

BIT SIZE : 14 BOREHOLE FLUID : H₂O/AIR FILF : OPTICINAT.
 MAGNETIC DECL. : 23 RM TYPE : 9033AA
 MATRIX DENSITY : 2.65 RM TEMPERATURE : LOG : 9
 FLUID DENSITY : 1.1 MATRIX DELTA T : PLOT : SMOXY 3
 NEUTRON MATRIX : SANDSTONE FLUID DELTA T : THRESH: 10000

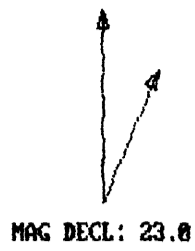
REMARKS :
 OPEN HOLE
 HOLE DEVIATED TO 60 DEG.

ALL SERVICES PROVIDED SUBJECT TO STANDARD TERMS AND CONDITIONS

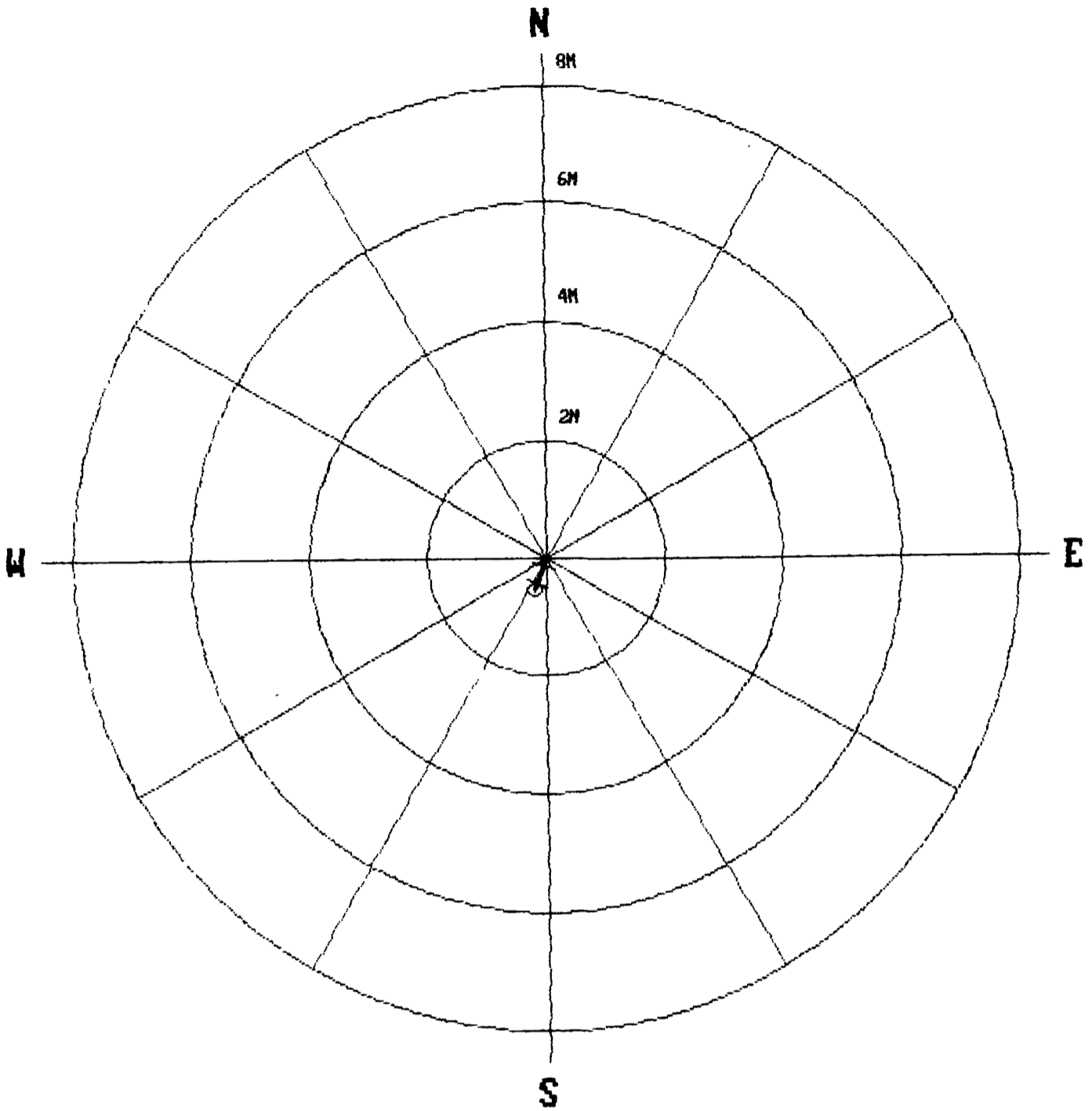


PLAN VIEW COMPU-LOG DEVIATION

CLIENT: PINE VALLEY COAL LTD.
 LOCATION: WILLOW CREEK PROJECT
 HOLE ID: WRH-96-021
 DATE OF LOG: 03/12/96
 PROBE: 9055A 58



SCALE: 1 M/CM
 TRUE DEPTH: 46.40 M
 AZINUTH: 199.9
 DISTANCE: 0.5 M
 + = 20 M INCR
 O = BOTTOM OF HOLE



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

| | | | |
|--------------|-----------------------|-------------|----------------|
| CLIENT | : PINE VALLEY COAL LT | HOLE ID. | : WRH-96-021 |
| FIELD OFFICE | : CALGARY, A.B | DATE OF LOG | : 03/12/96 |
| DATA FROM | : | PROBE | : 9055A 58 |
| MAG. DECL. | : 23.000 | DEPTH UNITS | : METERS LOG 5 |

| CABLE DEPTH | TRUE DEPTH | NORTH DEV. | EAST DEV. | DISTANCE | AZINUTH | SANG | SANGB |
|-------------|------------|------------|-----------|----------|---------|------|-------|
| 6.2 | 6.20 | -0.00 | -0.00 | 0.0 | 255.7 | 0.6 | 255.7 |
| 6.6 | 6.60 | -0.00 | -0.00 | 0.0 | 250.2 | 0.6 | 194.9 |
| 8.6 | 8.60 | -0.02 | -0.00 | 0.0 | 186.3 | 0.7 | 175.4 |
| 10.6 | 10.60 | -0.04 | -0.00 | 0.0 | 183.7 | 0.5 | 185.6 |
| 12.6 | 12.60 | -0.06 | -0.01 | 0.1 | 191.6 | 0.8 | 200.0 |
| 14.6 | 14.60 | -0.08 | -0.02 | 0.1 | 194.6 | 0.5 | 212.8 |
| 16.6 | 16.60 | -0.10 | -0.03 | 0.1 | 194.9 | 0.6 | 202.9 |
| 18.6 | 18.60 | -0.11 | -0.04 | 0.1 | 197.5 | 0.7 | 222.9 |
| 20.6 | 20.60 | -0.13 | -0.04 | 0.1 | 197.4 | 0.6 | 205.0 |
| 22.6 | 22.60 | -0.15 | -0.05 | 0.2 | 198.0 | 0.5 | 206.4 |
| 24.6 | 24.60 | -0.18 | -0.06 | 0.2 | 197.8 | 1.1 | 203.2 |
| 26.6 | 26.60 | -0.21 | -0.07 | 0.2 | 198.4 | 0.8 | 191.2 |
| 28.6 | 28.60 | -0.24 | -0.08 | 0.2 | 199.0 | 1.0 | 206.2 |
| 30.6 | 30.60 | -0.27 | -0.09 | 0.3 | 199.2 | 1.0 | 205.6 |
| 32.6 | 32.60 | -0.30 | -0.11 | 0.3 | 199.6 | 1.1 | 189.5 |
| 34.6 | 34.60 | -0.34 | -0.12 | 0.4 | 199.2 | 1.1 | 202.1 |
| 36.6 | 36.60 | -0.36 | -0.13 | 0.4 | 199.2 | 0.9 | 212.6 |
| 38.6 | 38.60 | -0.40 | -0.14 | 0.4 | 199.3 | 1.0 | 198.4 |
| 40.6 | 40.60 | -0.43 | -0.15 | 0.5 | 199.2 | 1.1 | 160.4 |
| 42.6 | 42.60 | -0.46 | -0.16 | 0.5 | 199.4 | 1.1 | 201.5 |
| 44.6 | 44.60 | -0.49 | -0.18 | 0.5 | 199.7 | 0.9 | 197.4 |
| 46.6 | 46.60 | -0.51 | -0.19 | 0.5 | 199.9 | 0.0 | 0.0 |
| 46.4 | 46.40 | -0.51 | -0.19 | 0.5 | 199.9 | 0.6 | 180.2 |

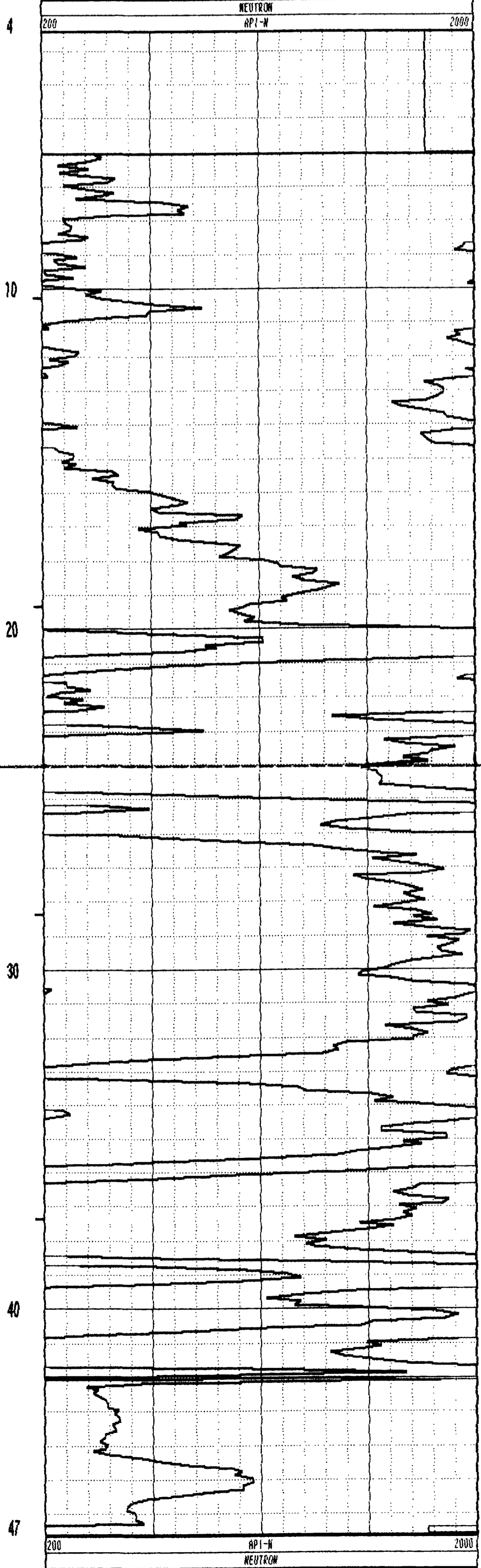
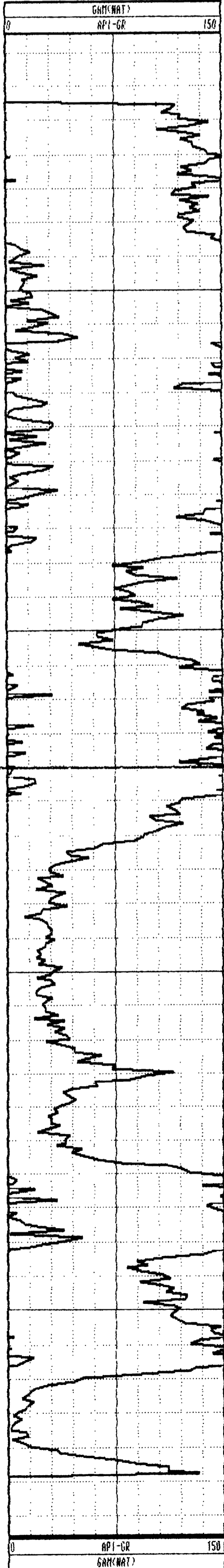


Century GEOPHYSICAL CORP.

GAMMA-NEUTRON

| | | | |
|-------------------|---------------------------|--------------------|---------------------------|
| COMPANY | : PINE VALLEY COAL LTD. | OTHER SERVICES: | |
| WELL | : WRH-96-021 | 9055 | |
| LOCATION/FIELD | : WILLOW CREEK PROJECT | 9030 | |
| COUNTY | : PINE PASS | | |
| STATE | : BRITISH COLUMBIA | | |
| SECTION | : TOWNSHIP | RANGE | : |
| DATE | : 03/12/96 | PERMANENT DATUM | : GROUND ELEVATIONS |
| DEPTH DRILLER | : 47 | ELEV. PERM. DATUM: | GROUND KB : |
| LOG BOTTOM | : 46.70 | LOG MEASURED FROM: | GL DF : |
| LOG TOP | : 4.60 | DRL MEASURED FROM: | GL GL : |
| CASING DRILLER | : 4.1 | LOGGING UNIT | : 8909 |
| CASING TYPE | : STEEL | FIELD OFFICE | : CALGARY, A.B |
| CASING THICKNESS: | 0.65 | RECORDED BY | : B. BOONE |
| BIT SIZE | : 14 | BOREHOLE FLUID | : H2O/AIR FILE : ORIGINAL |
| MAGNETIC DECL. | : 23 | RM | : TYPE : 9055A |
| MATRIX DENSITY | : 2.65 | RM TEMPERATURE | : LOG : 3 |
| FLUID DENSITY | : 1.1 | MATRIX DELTA T | : PLOT : SMOKY 7 |
| NEUTRON MATRIX | : SANDSTONE FLUID DELTA T | | : THRESH: 10000 |
| REMARKS | : | | |
| OPEN HOLE | | | |
| VERTICAL | | | |

ALL SERVICES PROVIDED SUBJECT TO STANDARD TERMS AND CONDITIONS

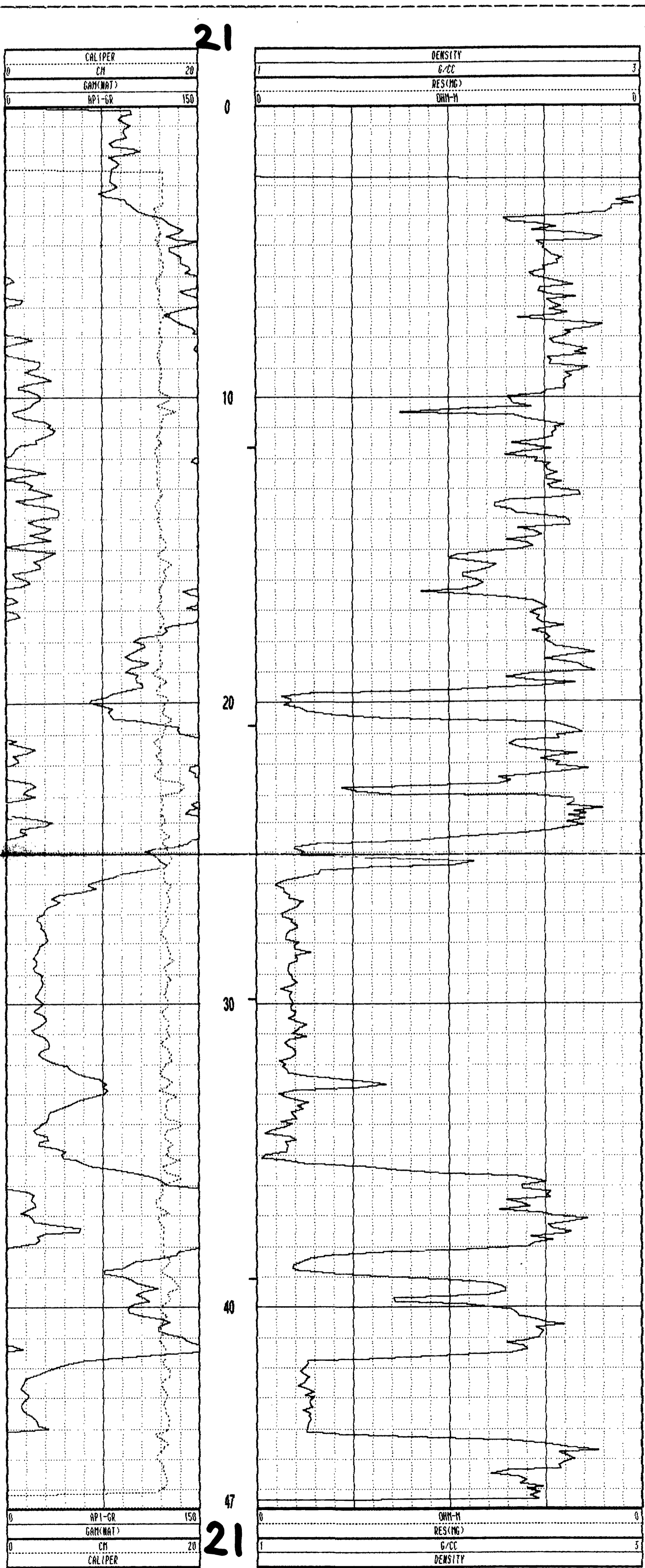


GAMMA-RES-DENSITY

| | | | |
|-------------------|-------------------------|--------------------|---------------------|
| COMPANY | : PINE VALLEY COAL LTD. | OTHER SERVICES: | |
| WELL | : WRH-96-021 | 9055 | |
| LOCATION/FIELD | : WILLOW CREEK PROJECT | 9030 | |
| COUNTY | : PINE PASS | | |
| STATE | : BRITISH COLUMBIA | | |
| SECTION | : TOWNSHIP | : RANGE | : |
| DATE | : 03/12/96 | PERMANENT DATUM | : GROUND ELEVATIONS |
| DEPTH DRILLER | : 47 | ELEV. PERM. DATUM: | : GROUND KB : |
| LOG BOTTOM | : 46.70 | LOG MEASURED FROM: | : GL DF : |
| LOG TOP | : 0.50 | DRL MEASURED FROM: | : GL GL : |
| CASING DRILLER | : 4.1 | LOGGING UNIT | : 8909 |
| CASING TYPE | : STEEL | FIELD OFFICE | : CALGARY, A.B |
| CASING THICKNESS: | : 0.65 | RECORDED BY | : B. BUONE |

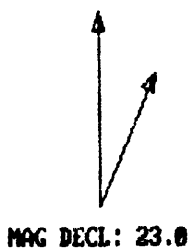
| | | | | | |
|----------------|-------------|----------------|-----------|--------|------------|
| BIT SIZE | : 14 | BOREHOLE FLUID | : H2O/AIR | FILE | : ORIGINAL |
| MAGNETIC DECL. | : 23 | RM | : | TYPE | : 9030AA |
| MATRIX DENSITY | : 2.65 | RM TEMPERATURE | : | LOG | : 4 |
| FLUID DENSITY | : 1.1 | MATRIX DELTA T | : | PLOT | : SMOKY 3 |
| NEUTRON MATRIX | : SANDSTONE | FLUID DELTA T | : | THRESH | : 10000 |
| REMARKS | : | | | | |
| OPEN HOLE | | | | | |
| VERTICAL | | | | | |

ALL SERVICES PROVIDED SUBJECT TO STANDARD TERMS AND CONDITIONS

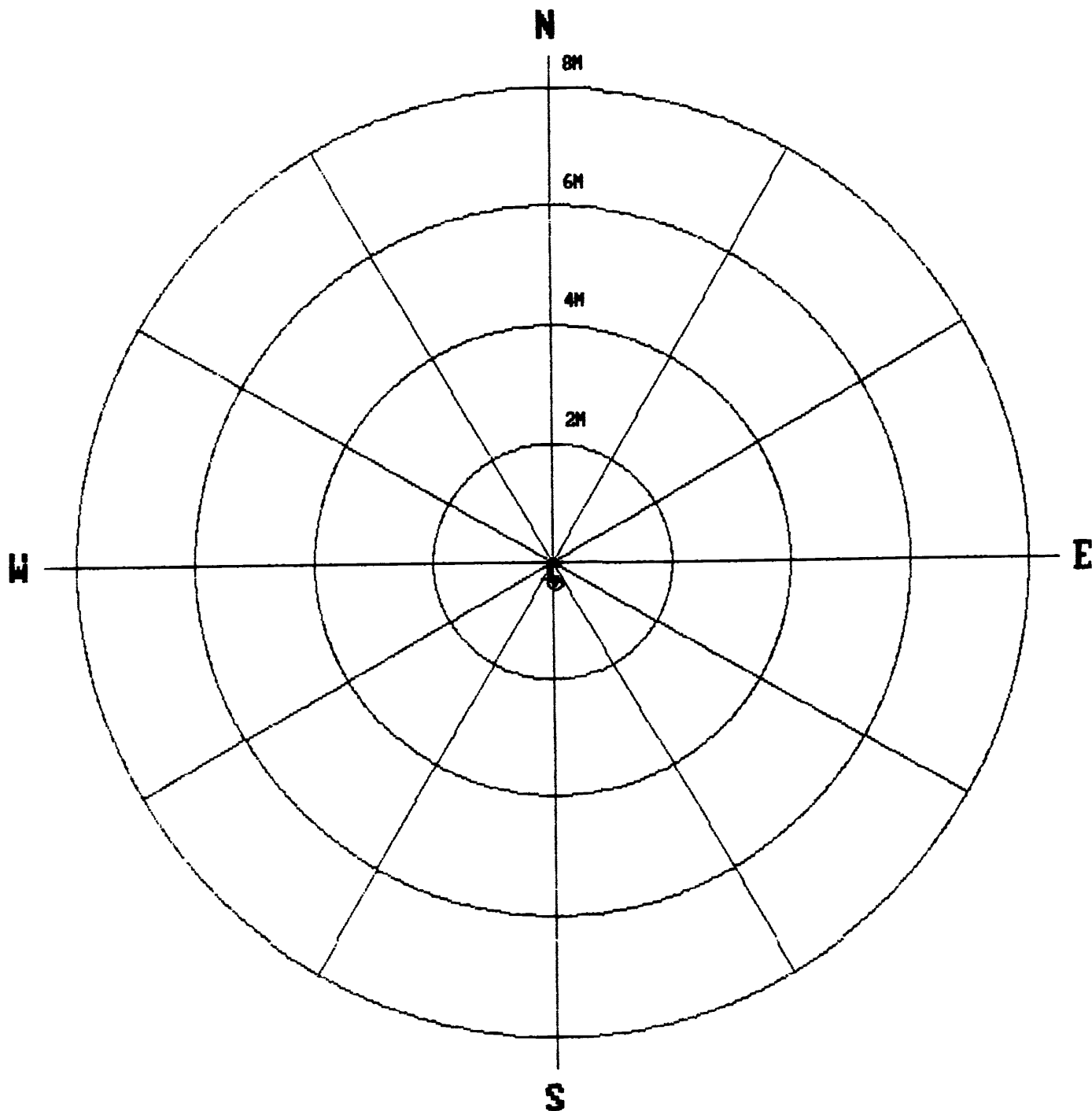


PLAN VIEW COMPU-LOG DEVIATION

CLIENT: PINE VALLEY COAL LTD.
 LOCATION: WILLOW CREEK PROJECT
 HOLE ID: WRH-96-022
 DATE OF LOG: 03/13/96
 PROBE: 9055A 58



SCALE: 1 M/CM
 TRUE DEPTH: 23.10 M
 AZIMUTH: 170.2
 DISTANCE: 0.3 M
 + = 20 M INCR
 O = BOTTOM OF HOLE



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

| | |
|------------------------------|----------------------------|
| CLIENT : PINE VALLEY COAL LT | HOLE ID. : WRH-96-022 |
| FIELD OFFICE : CALGARY, A.B | DATE OF LOG : 03/13/96 |
| DATA FROM : | PROBE : 9055A , 58 |
| MAG. DECL. : 23.000 | DEPTH UNITS : METERS LUG 1 |

| CABLE DEPTH | TRUE DEPTH | NORTH DEV. | EAST DEV. | DISTANCE | AZIMUTH | SANG | SANGB |
|-------------|------------|------------|-----------|----------|---------|------|-------|
| 2.9 | 2.90 | -0.00 | -0.00 | 0.0 | 241.0 | 1.7 | 241.0 |
| 3.3 | 3.30 | -0.01 | -0.01 | 0.0 | 224.6 | 0.9 | 207.1 |
| 5.3 | 5.30 | -0.03 | -0.03 | 0.0 | 219.0 | 1.1 | 196.3 |
| 7.3 | 7.30 | -0.08 | -0.05 | 0.1 | 210.5 | 1.4 | 196.7 |
| 9.3 | 9.30 | -0.12 | -0.06 | 0.1 | 205.2 | 1.1 | 198.3 |
| 11.3 | 11.30 | -0.16 | -0.06 | 0.2 | 200.1 | 1.2 | 176.2 |
| 13.3 | 13.30 | -0.20 | -0.06 | 0.2 | 195.3 | 1.2 | 167.1 |
| 15.3 | 15.30 | -0.24 | -0.04 | 0.2 | 189.6 | 1.1 | 161.2 |
| 17.3 | 17.30 | -0.28 | -0.02 | 0.3 | 184.5 | 0.8 | 122.3 |
| 19.3 | 19.30 | -0.30 | 0.01 | 0.3 | 179.0 | 1.0 | 123.0 |
| 21.3 | 21.30 | -0.32 | 0.03 | 0.3 | 174.5 | 1.2 | 133.6 |
| 23.3 | 23.30 | -0.34 | 0.06 | 0.3 | 170.2 | 0.0 | 0.0 |
| 23.1 | 23.10 | -0.34 | 0.06 | 0.3 | 170.2 | 1.1 | 129.8 |

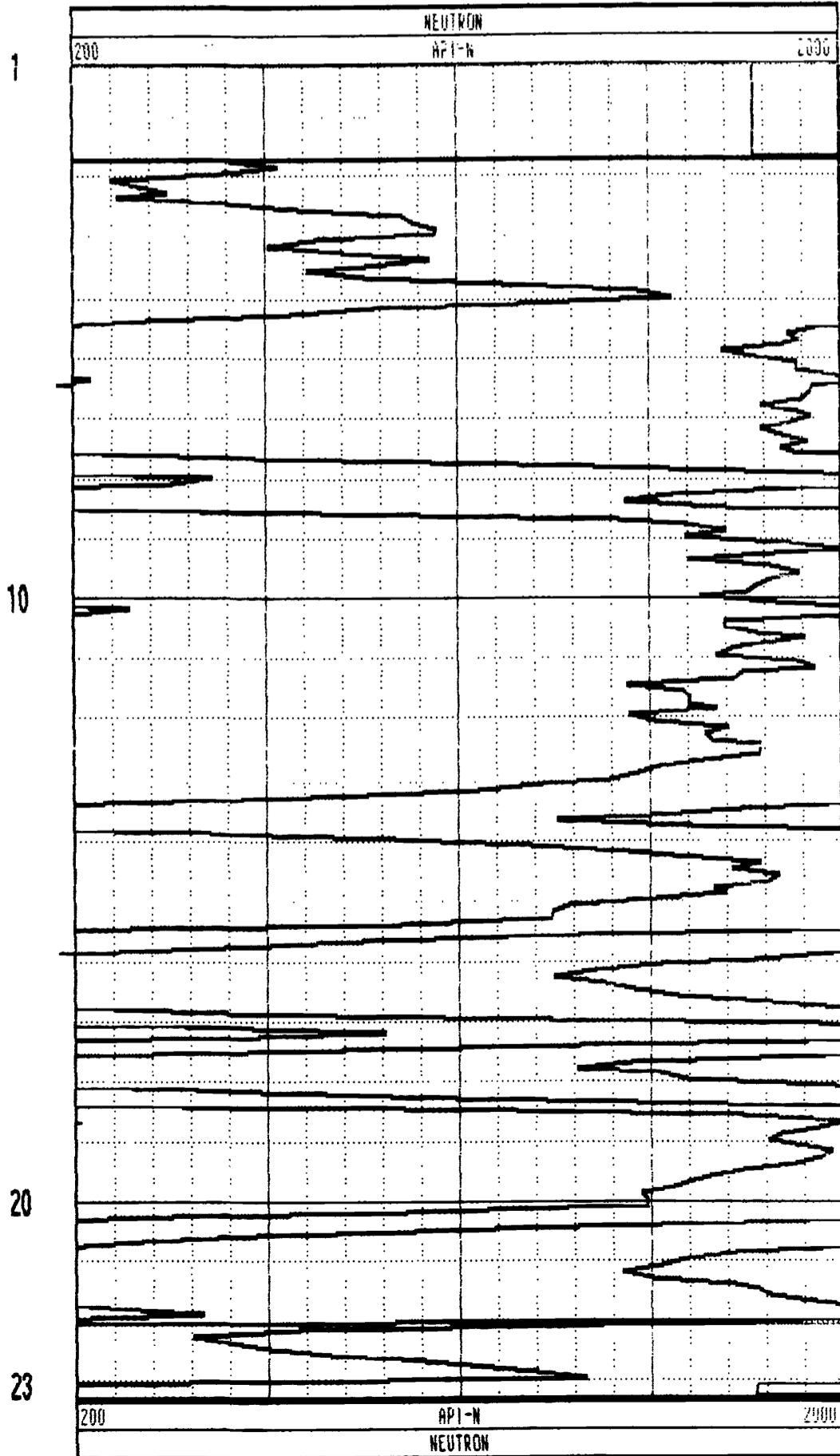
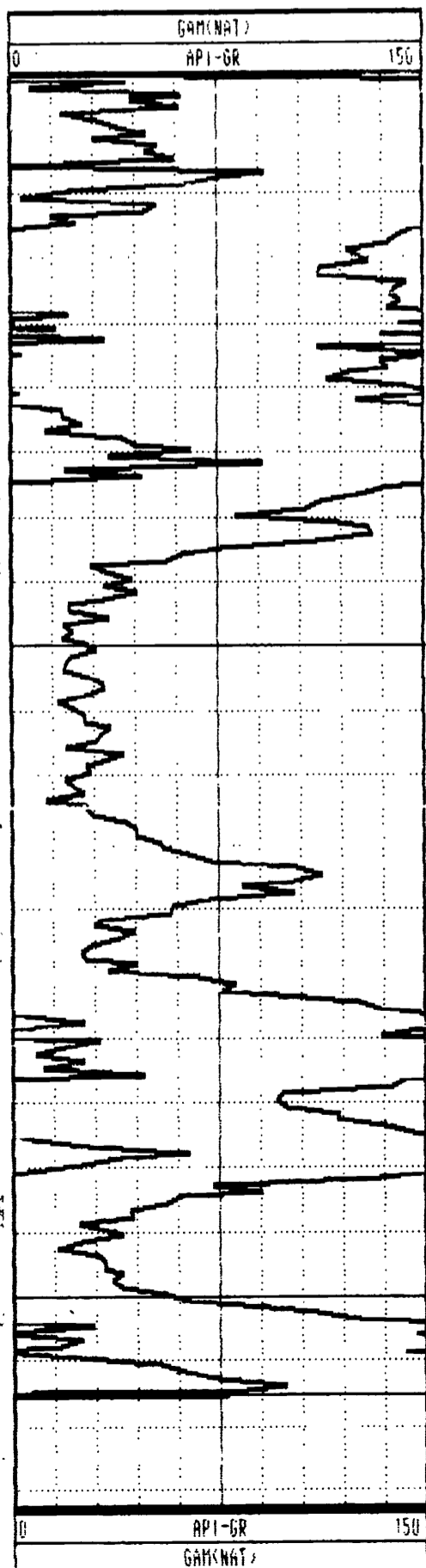


Century GEOPHYSICAL CORP.

GAMMA-NEUTRON

| | | | |
|------------------|---------------------------|------------------------|---------------------------|
| COMPANY | : PINE VALLEY COAL LTD. | OTHER SERVICES: | |
| WELL | : WRH-96-022 | 9055 | |
| LOCATION/FIELD | : WILLOW CREEK PROJECT | 9030 | |
| COUNTY | : PINE PASS | | |
| STATE | : BRITISH COLUMBIA | | |
| SECTION | : TOWNSHIP | : RANGE | : |
| DATE | : 03/13/96 | PERMANENT DATUM | : GROUND ELEVATIONS |
| DEPTH DRILLER | : 24 | ELEV. PERM. DATUM | : GROUND KB |
| LOG BOTTOM | : 23.40 | LOG MEASURED FROM | : GL DF |
| LOG TOP | : 1.30 | DRL MEASURED FROM | : GL GL |
| CASING DRILLER | : - | LOGGING UNIT | : 9603 |
| CASING TYPE | : | FIELD OFFICE | : CALGARY, A.B |
| CASING THICKNESS | : | RECORDED BY | : B. BOONE |
| BIT SIZE | : 14 | BOREHOLE FLUID | : H2O/AIR FILE : ORIGINAL |
| MAGNETIC DECL. | : 23 | RM | : TYPE : 9055A |
| MATRIX DENSITY | : 2.65 | RM TEMPERATURE | : LOG : 0 |
| FLUID DENSITY | : 1.1 | MATRIX DELTA T | : PLOT : SMOKY 7 |
| NEUTRON MATRIX | : SANDSTONE FLUID DELTA T | : | : THRESH: 10000 |
| REMARKS | : | | |
| OPEN HOLE | : | | |
| VERTICAL | : | | |

ALL SERVICES PROVIDED SUBJECT TO STANDARD TERMS AND CONDITIONS



GAMMA-RES-DENSITY

COMPANY : PINE VALLEY COAL LTD.
 WELL : WRH-96-022
 LOCATION/FIELD : WILLOW CREEK PROJECT
 COUNTY : PINE PASS
 STATE : BRITISH COLUMBIA
 SECTION : TOWNSHIP : RANGE :

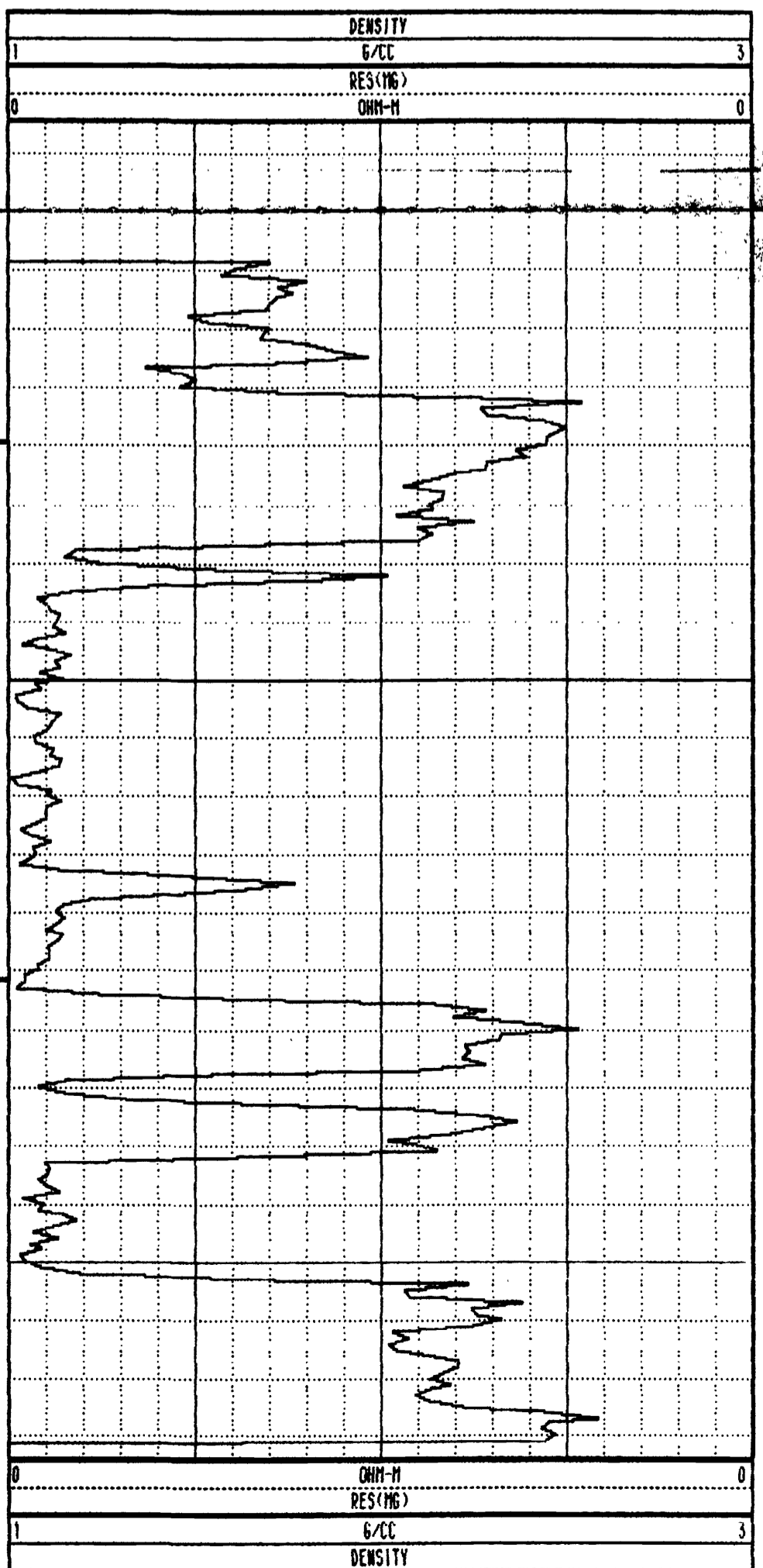
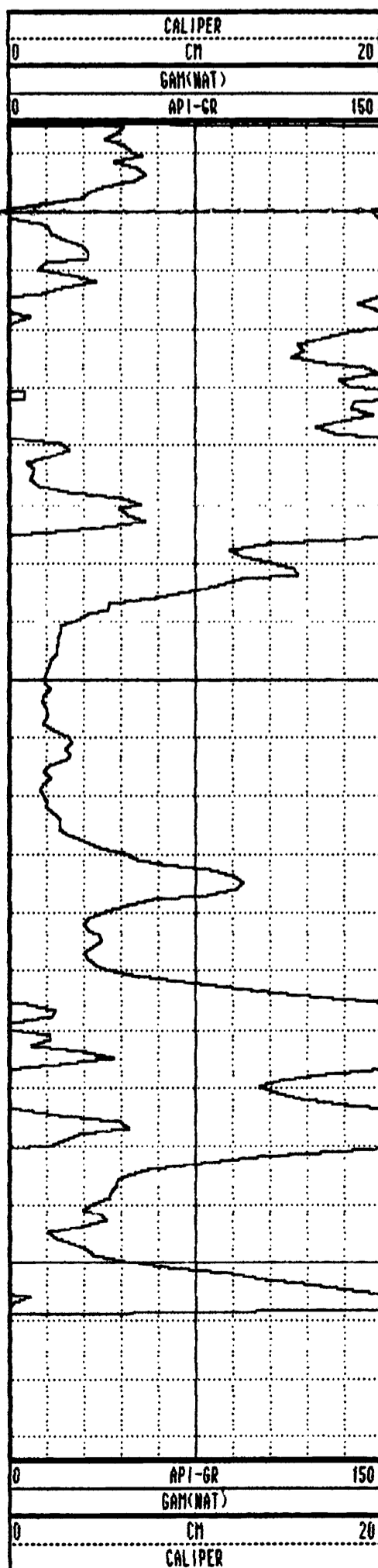
OTHER SERVICES:
 9055
 9030

DATE : 03/13/96 PERMANENT DATUM : GROUND ELEVATIONS
 DEPTH DRILLER : 24 ELEV. PERM. DATUM: GROUND KB :
 LOG BOTTOM : 23.50 LOG MEASURED FROM: GL DF :
 LOG TOP : 0.60 DRL MEASURED FROM: CL CL :
 CASING DRILLER : - LOGGING UNIT : 9603
 CASING TYPE : FIELD OFFICE : CALGARY, A.B
 CASING THICKNESS: - RECORDED BY : B. BOONE

BIT SIZE : 14 BOREHOLE FLUID : H2O/AIR FILE : ORIGINAL
 MAGNETIC DECL. : 23 RM : TYPE : 9033AA
 MATRIX DENSITY : 2.65 RM TEMPERATURE : LOG : 2
 FLUID DENSITY : 1.1 MATRIX DELTA T : PLOT : SMOKY 3
 NEUTRON MATRIX : SANDSTONE FLUID DELTA T : THRESH: 10000
 REMARKS :
 OPEN HOLE
 VERTICAL

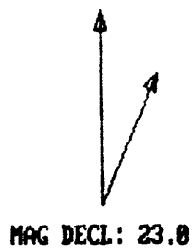
ALL SERVICES PROVIDED SUBJECT TO STANDARD TERMS AND CONDITIONS

22

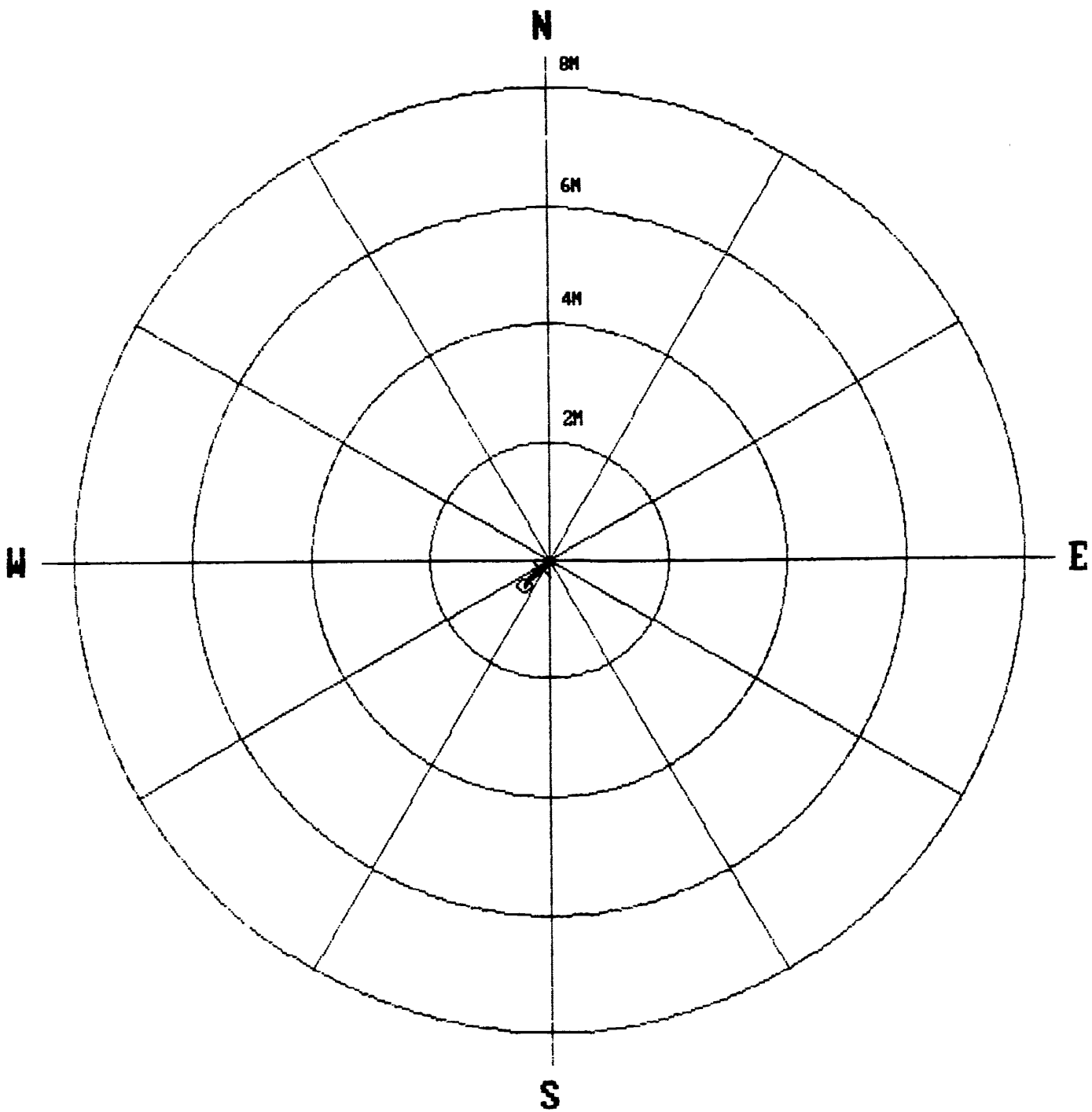


PLAN VIEW COMPU-LOG DEVIATION

CLIENT: PINE VALLEY COAL LTD.
 LOCATION: WILLOW CREEK PROJECT
 HOLE ID: WRH-96-023
 DATE OF LOG: 03/13/96
 PROBE: 9055A 58



SCALE: 1 M/CM
 TRUE DEPTH: 38.59 M
 AZIMUTH: 224.4
 DISTANCE: 0.6 M
 + = 20 M INCR
 O = BOTTOM OF HOLE



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

| | | | |
|--------------|-----------------------|-------------|----------------|
| CLIENT | : PINE VALLEY COAL LI | HOLE ID. | : WRH-96-023 |
| FIELD OFFICE | : CALGARY, A.B | DATE OF LOG | : 03/13/96 |
| DATA FROM | : | PROBE | : 9055A , 58 |
| MAG. DECL. | : 23.000 | DEPTH UNITS | : METERS LOG 5 |

| CABLE DEPTH | TRUE DEPTH | NORTH DEV. | EAST DEV. | DISTANCE | AZIMUTH | SANG | SANGB |
|-------------|------------|------------|-----------|----------|---------|------|-------|
| 8.3 | 8.30 | -0.00 | -0.00 | 0.0 | 201.9 | 0.7 | 201.9 |
| 8.7 | 8.70 | -0.01 | -0.00 | 0.0 | 199.3 | 0.9 | 197.6 |
| 10.7 | 10.70 | -0.04 | -0.01 | 0.0 | 196.9 | 1.0 | 201.5 |
| 12.7 | 12.70 | -0.06 | -0.03 | 0.1 | 201.6 | 0.7 | 222.2 |
| 14.7 | 14.70 | -0.09 | -0.04 | 0.1 | 206.1 | 1.1 | 215.2 |
| 16.7 | 16.70 | -0.11 | -0.07 | 0.1 | 210.4 | 0.9 | 233.9 |
| 18.7 | 18.70 | -0.14 | -0.09 | 0.2 | 214.2 | 1.1 | 229.1 |
| 20.7 | 20.70 | -0.16 | -0.12 | 0.2 | 217.1 | 1.1 | 231.2 |
| 22.7 | 22.70 | -0.18 | -0.15 | 0.2 | 219.8 | 1.0 | 229.7 |
| 24.7 | 24.70 | -0.20 | -0.18 | 0.3 | 222.1 | 1.2 | 238.5 |
| 26.7 | 26.70 | -0.22 | -0.21 | 0.3 | 223.6 | 1.0 | 228.7 |
| 28.7 | 28.70 | -0.24 | -0.24 | 0.3 | 225.1 | 1.2 | 231.1 |
| 30.7 | 30.70 | -0.27 | -0.27 | 0.4 | 226.0 | 1.3 | 236.1 |
| 32.7 | 32.70 | -0.30 | -0.31 | 0.4 | 226.1 | 1.4 | 240.3 |
| 34.7 | 34.70 | -0.33 | -0.34 | 0.5 | 225.4 | 1.7 | 221.8 |
| 36.7 | 36.69 | -0.37 | -0.37 | 0.5 | 224.5 | 1.4 | 223.7 |
| 38.7 | 38.69 | -0.41 | -0.41 | 0.6 | 224.4 | 0.0 | 0.0 |
| 38.6 | 38.59 | -0.41 | -0.41 | 0.6 | 224.4 | 1.9 | 228.8 |



Century GEOPHYSICAL CORP.

GAMMA-NEUTRON

COMPANY : PINE VALLEY COAL LTD.
 WELL : WRH-96-023
 LOCATION/FIELD : WILLOW CREEK PROJECT
 COUNTY : PINE PASS
 STATE : BRITISH COLUMBIA
 SECTION : TOWNSHIP : RANGE :

OTHER SERVICES:
 9055
 9030

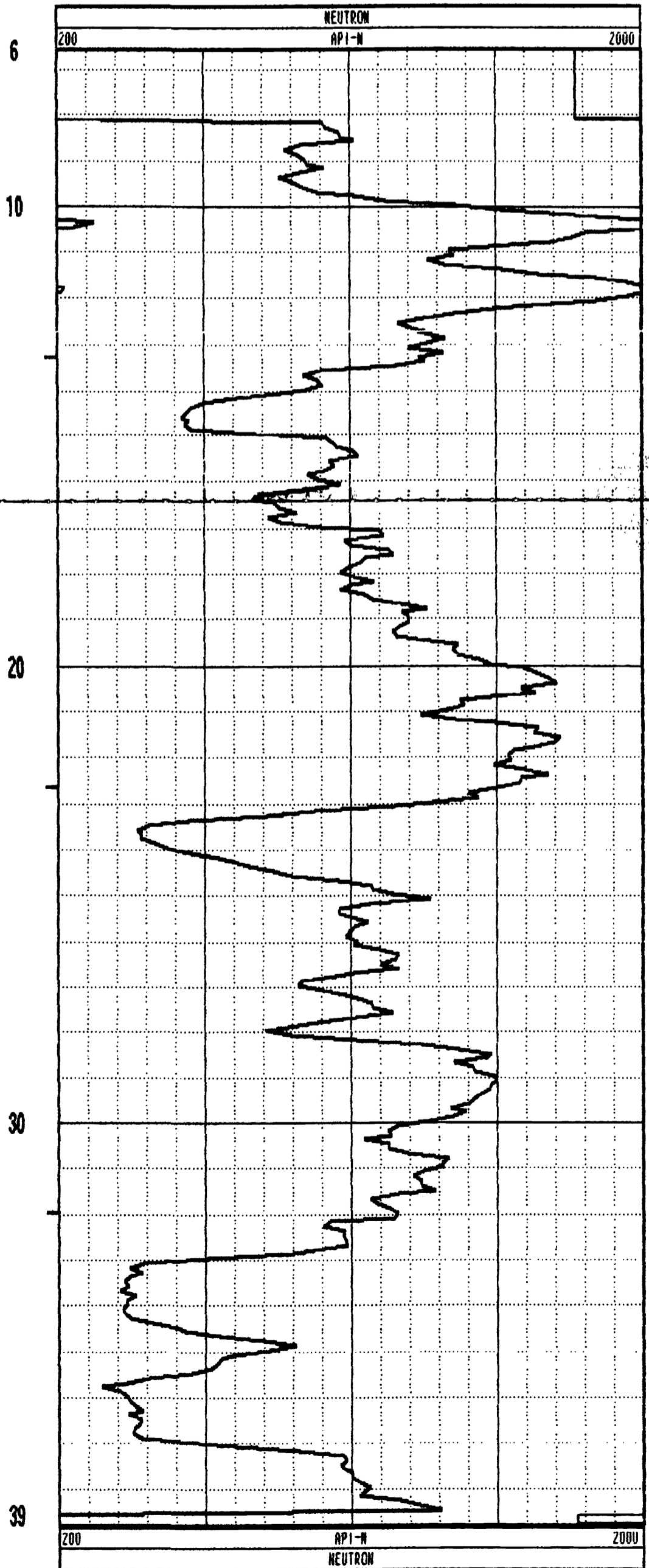
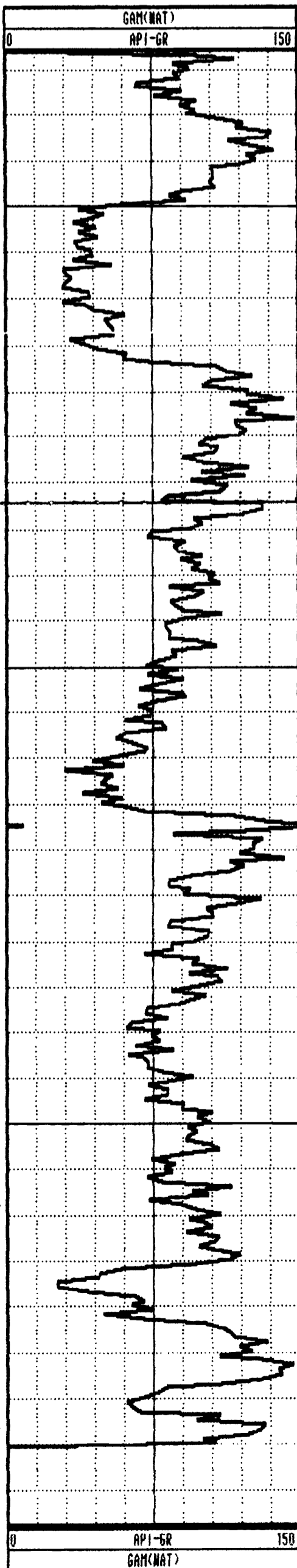
DATE : 03/13/96 PERMANENT DATUM : GROUND ELEVATIONS
 DEPTH DRILLER : 42 ELEV. PERM. DATUM: GROUND KB :
 LOG BOTTOM : 38.90 LOG MEASURED FROM: GL DF :
 LOG TOP : 6.70 DRL MEASURED FROM: GL GL :

CASING DRILLER : 4 LOGGING UNIT : 9603
 CASING TYPE : STEEL FIELD OFFICE : CALGARY, A.B
 CASING THICKNESS: - RECORDED BY : B. BOONE

BIT SIZE : 14 BOREHOLE FLUID : H2O/AIR FILE : ORIGINAL
 MAGNETIC DECL. : 23 RM : TYPE : 9055A
 MATRIX DENSITY : 2.65 RM TEMPERATURE : LOG : 3
 FLUID DENSITY : 1.1 MATRIX DELTA T : PLOT : SMOKY 7
 NEUTRON MATRIX : SANDSTONE FLUID DELTA T : THRESH: 10000

REMARKS :
 OPEN HOLE
 VERTICAL

ALL SERVICES PROVIDED SUBJECT TO STANDARD TERMS AND CONDITIONS



GAMMA-RES-DENSITY

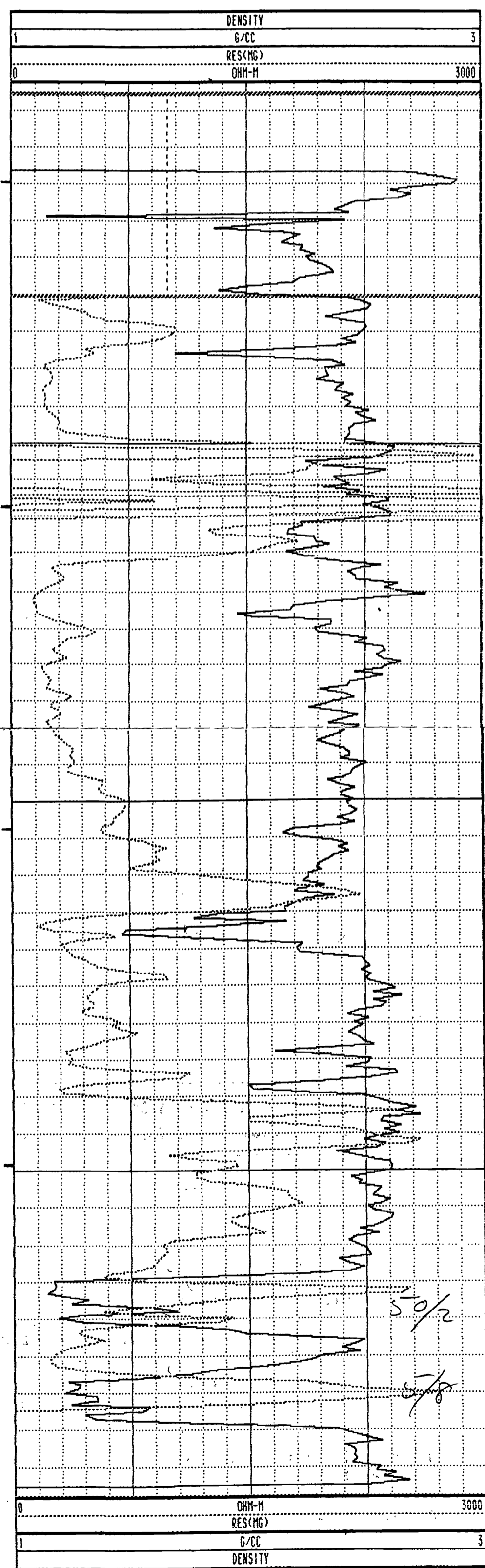
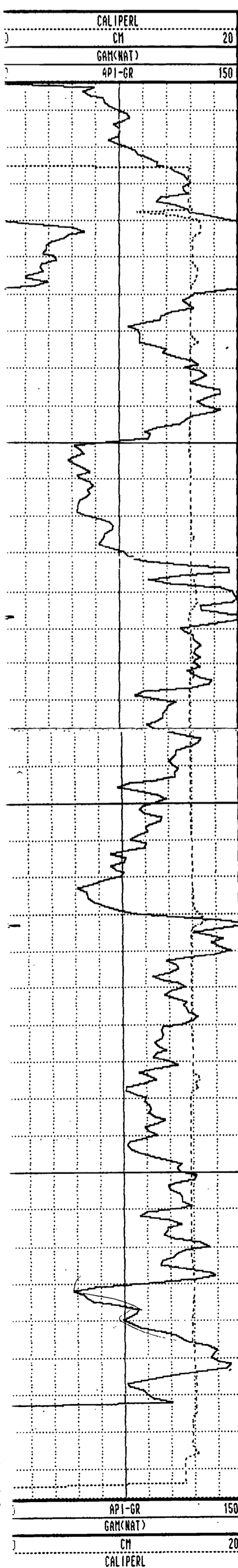
COMPANY : PINE VALLEY COAL LTD.
 WELL : WRH-96-023
 LOCATION/FIELD : WILLOW CREEK PROJECT
 COUNTY : PINE PASS
 STATE : BRITISH COLUMBIA
 SECTION : TOWNSHIP : RANGE :

OTHER SERVICES:
 9055
 9030

DATE : 03/13/96 PERMANENT DATUM : GROUND ELEVATIONS
 DEPTH DRILLER : 42 ELEV. PERM. DATUM: GROUND KB :
 LOG BOTTOM : 38.90 LOG MEASURED FROM: GL DF :
 LOG TOP : 0.40 DRL MEASURED FROM: GL GL :
 CASING DRILLER : 4 LOGGING UNIT : 9603
 CASING TYPE : STEEL FIELD OFFICE : CALGARY, A.B
 CASING THICKNESS: - RECORDED BY : B. BOONE

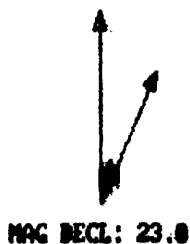
BIT SIZE : 14 BOREHOLE FLUID : H2O/AIR FILE : ORIGINAL
 MAGNETIC DECL. : 23 RM : TYPE : 9033AA
 MATRIX DENSITY : 2.65 RM TEMPERATURE : LOG : 4
 FLUID DENSITY : 1.1 MATRIX DELTA T : PLOT : SMOXY 3
 NEUTRON MATRIX : SANDSTONE FLUID DELTA T : THRESH: 10000
 REMARKS :
 OPEN HOLE
 VERTICAL

ALL SERVICES PROVIDED SUBJECT TO STANDARD TERMS AND CONDITIONS

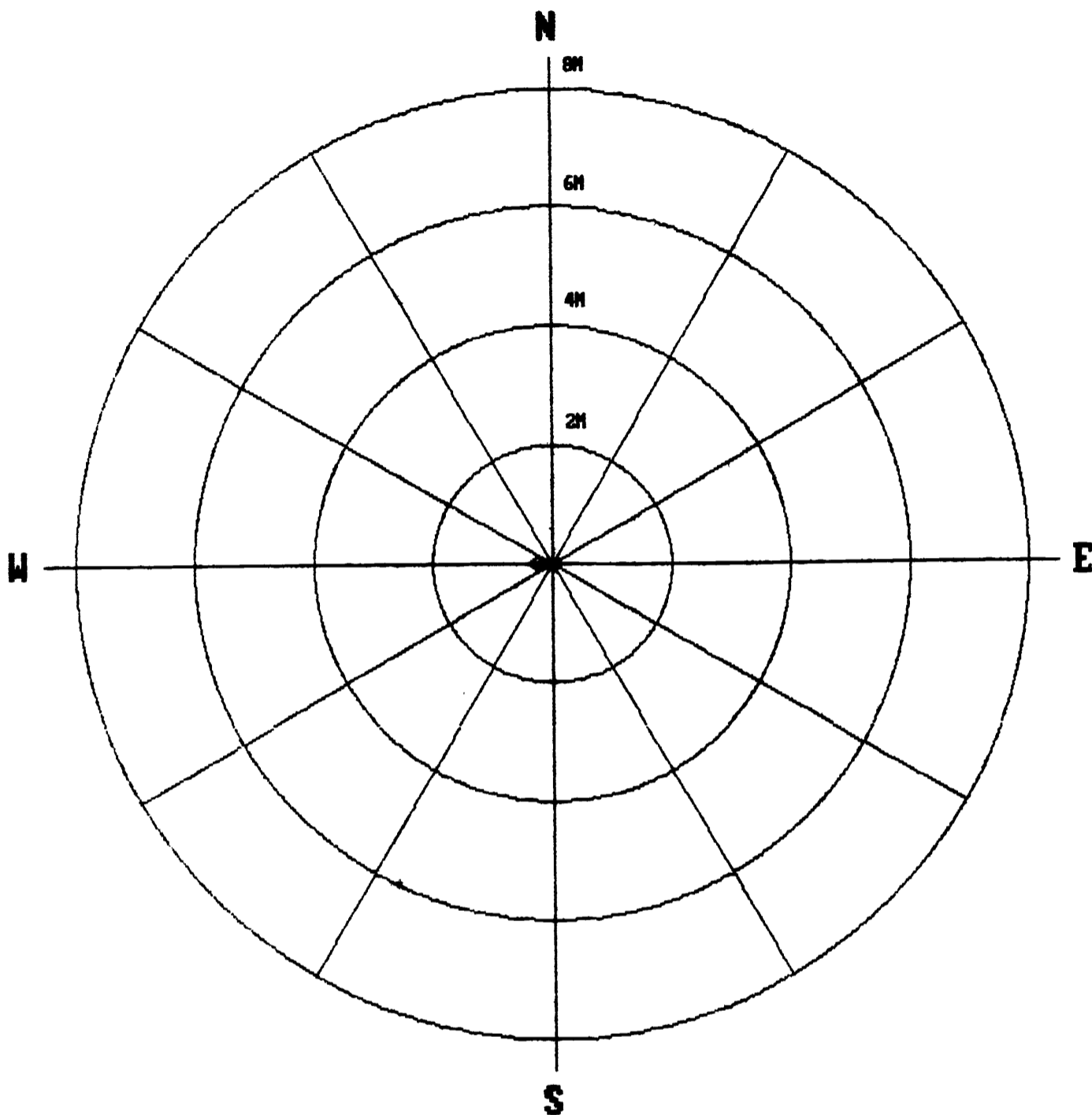


PLAN VIEW
COMPU - LOG DEVIATION

CLIENT PINE VALLEY COAL LTD
LOCATION WILLOW CREEK PROJECT
HOLE ID WRH 96-024C
DATE OF LOG 03/14/96
PROBE: 9055A 58



SCALE: 1 M/CM
TRUE DEPTH 30.90 M
AZIMUTH: 273.5
DISTANCE 0.2 M
+ - 50 M INCR
O BOTTOM OF HOLE



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

CLIENT : PINE VALLEY COAL LT HOLE ID. : WRH-96-024C
FIELD OFFICE : CALGARY, A.B. DATE OF LOG : 03/14/96
DATA FROM : PROBE : 9055A , 58
MAG. DECL. : 23.000 DEPTH UNITS : METERS LOG 5

| CABLE DEPTH | TRUE DEPTH | NORTH DEV. | EAST DEV. | DISTANCE | AZIMUTH | SANG | SANGB |
|-------------|------------|------------|-----------|----------|---------|------|-------|
| 2.9 | 2.90 | -0.00 | 0.00 | 0.0 | 172.8 | 0.4 | 172.8 |
| 3.3 | 3.30 | -0.00 | 0.00 | 0.0 | 178.4 | 0.3 | 181.6 |
| 5.3 | 5.30 | -0.02 | 0.01 | 0.0 | 153.7 | 0.5 | 160.8 |
| 7.3 | 7.30 | -0.03 | 0.01 | 0.0 | 169.4 | 0.4 | 213.8 |
| 9.3 | 9.30 | -0.04 | -0.00 | 0.0 | 182.2 | 0.4 | 227.5 |
| 11.3 | 11.30 | -0.05 | -0.01 | 0.0 | 197.3 | 0.4 | 241.0 |
| 13.3 | 13.30 | -0.05 | -0.03 | 0.1 | 209.5 | 0.4 | 262.3 |
| 15.3 | 15.30 | -0.05 | -0.04 | 0.1 | 220.6 | 0.4 | 277.5 |
| 17.3 | 17.30 | -0.05 | -0.06 | 0.1 | 230.9 | 0.4 | 286.4 |
| 19.3 | 19.30 | -0.04 | -0.07 | 0.1 | 239.7 | 0.5 | 295.5 |
| 21.3 | 21.30 | -0.04 | -0.09 | 0.1 | 247.9 | 0.6 | 291.5 |
| 23.3 | 23.30 | -0.03 | -0.11 | 0.1 | 255.7 | 0.7 | 308.9 |
| 25.3 | 25.30 | -0.02 | -0.13 | 0.1 | 262.7 | 0.8 | 280.9 |
| 27.3 | 27.30 | -0.01 | -0.16 | 0.2 | 267.9 | 0.9 | 285.9 |
| 29.3 | 29.30 | 0.01 | -0.19 | 0.2 | 271.5 | 0.9 | 280.1 |
| 30.9 | 30.90 | 0.01 | -0.22 | 0.2 | 273.5 | 0.7 | 298.1 |



Century GEOPHYSICAL CORP.

GAMMA-NEUTRON

COMPANY : PINE VALLEY COAL LTD. OTHER SERVICES:
9055
9030
 WELL : WRH-96-024C
 LOCATION/FIELD : WILLOW CREEK PROJECT
 COUNTY : PINE PASS
 STATE : BRITISH COLUMBIA
 SECTION : TOWNSHIP : RANGE :

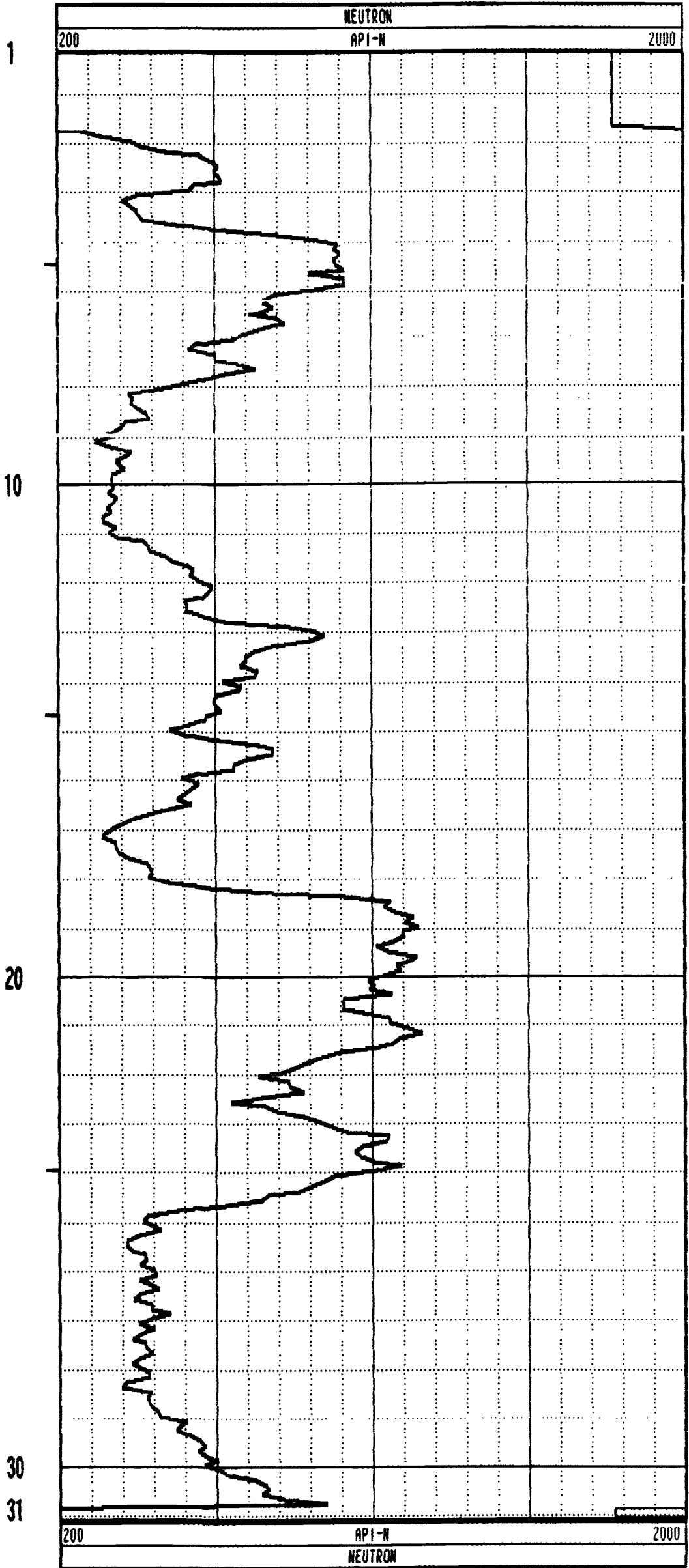
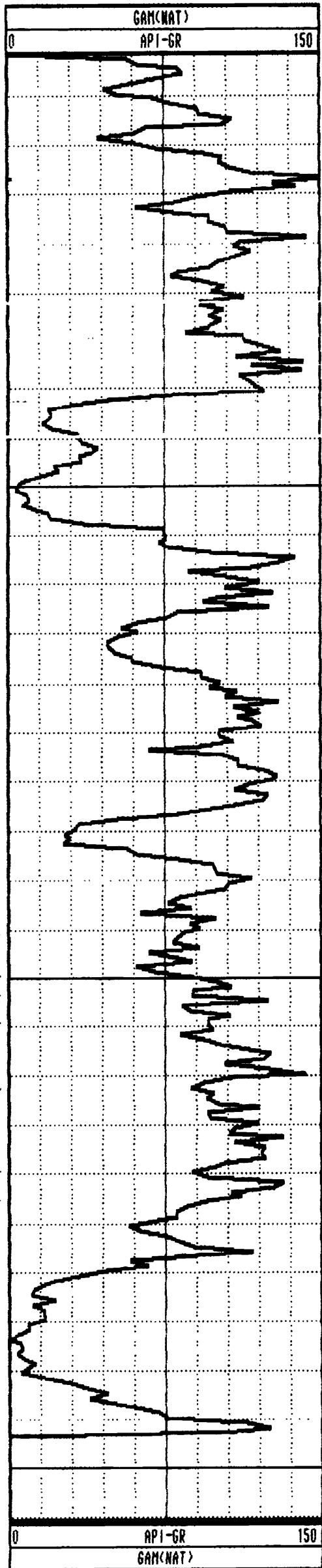
DATE : 03/14/96 PERMANENT DATUM : GROUND ELEVATIONS
 DEPTH DRILLER : 35 ELEV. PERM. DATUM: GROUND KB :
 LOG BOTTOM : 31.20 LOG MEASURED FROM: GL DF :
 LOG TOP : 1.30 DRL MEASURED FROM: GL GL :

CASING DRILLER : - LOGGING UNIT : 9603
 CASING TYPE : FIELD OFFICE : CALGARY, A.B
 CASING THICKNESS: - RECORDED BY : B. BOONE

BIT SIZE : 14 BOREHOLE FLUID : H2O/AIR FILE : ORIGINAL
 MAGNETIC DECL. : 23 RM : TYPE : 9055A
 MATRIX DENSITY : 2.65 RM TEMPERATURE : LOG : 4
 FLUID DENSITY : 1.1 MATRIX DELTA T : PLOT : SMOKY 7
 NEUTRON MATRIX : SANDSTONE FLUID DELTA T : THRESH: 10000

REMARKS :
 OPEN HOLE
 VERTICAL

ALL SERVICES PROVIDED SUBJECT TO STANDARD TERMS AND CONDITIONS



GAMMA-RES-DENSITY

COMPANY : PINE VALLEY COAL LTD.
 WFLI. : WRH-96-0240
 LOCATION/FIELD : WILLOW CREEK PROJECT
 COUNTY : PINE PASS
 STATE : BRITISH COLUMBIA
 SECTION : TOWNSHIP : RANGE :

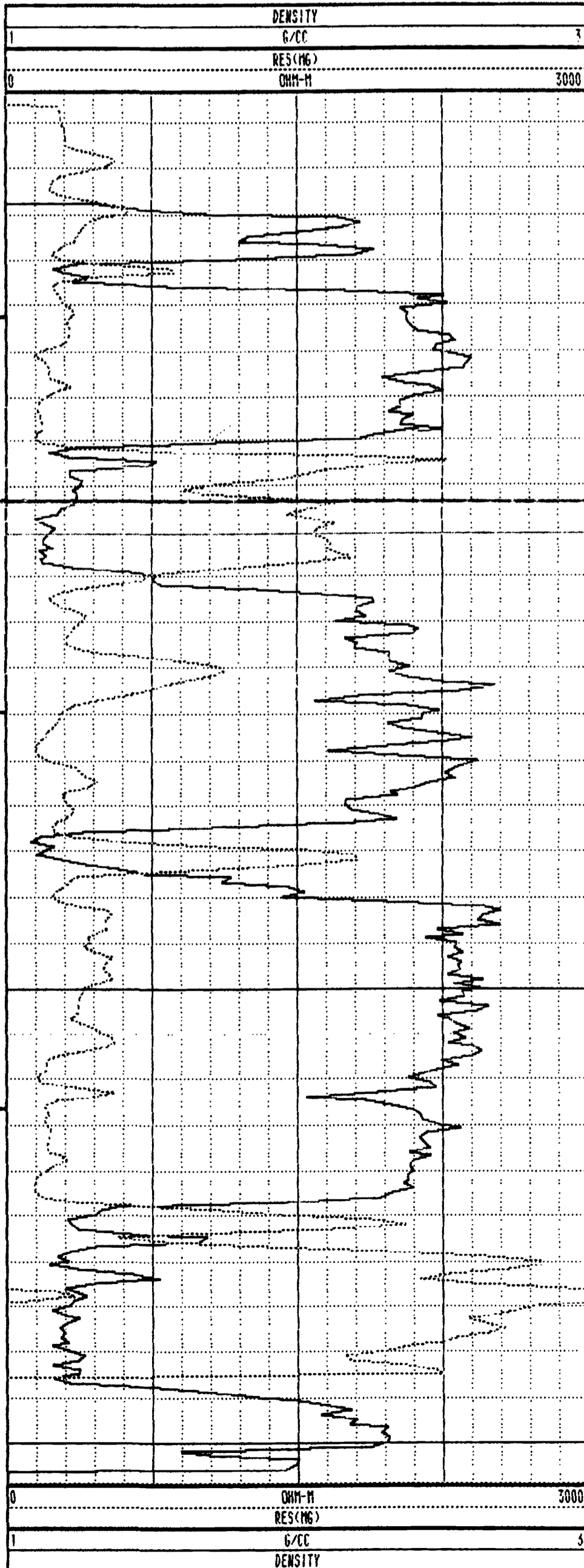
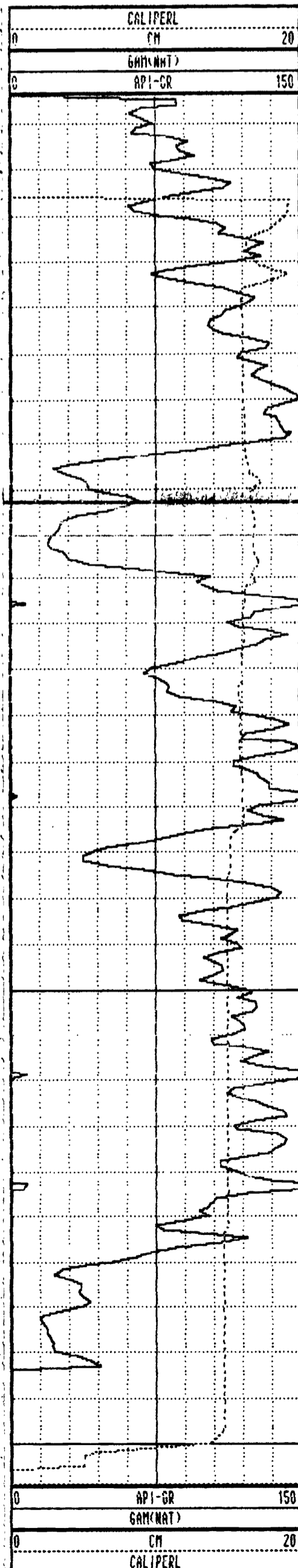
OTHER SERVICES:
 9055
 9030

DATE : 03/14/96 PERMANENT DATUM : GROUND ELEVATIONS
 DEPTH DRILLER : 35 ELEV. PERM. DATUM: GROUND KB :
 LOG BOTTOM : 31.00 LOG MEASURED FROM: GL DF :
 LOG TOP : 0.50 DRL MEASURED FROM: GL GL :
 CASING DRILLER : - LOGGING UNIT : 9603
 CASING TYPE : FIELD OFFICE : CALGARY, A.B
 CASING THICKNESS: - RECORDED BY : B. BOONE

BIT SIZE : 14 BOREHOLE FLUID : H2O/AIR FILE : ORIGINAL
 MAGNETIC DECL. : 23 RM : TYPE : 9033AA
 MATRIX DENSITY : 2.65 RM TEMPERATURE : LOG : 6
 FLUID DENSITY : 1.1 MATRIX DELTA T : PLOT : SMOKY 3
 NEUTRON MATRIX : SANDSTONE FLUID DELTA T : THRESH: 10000

REMARKS :
 OPEN HOLE
 VERTICAL

ALL SERVICES PROVIDED SUBJECT TO STANDARD TERMS AND CONDITIONS

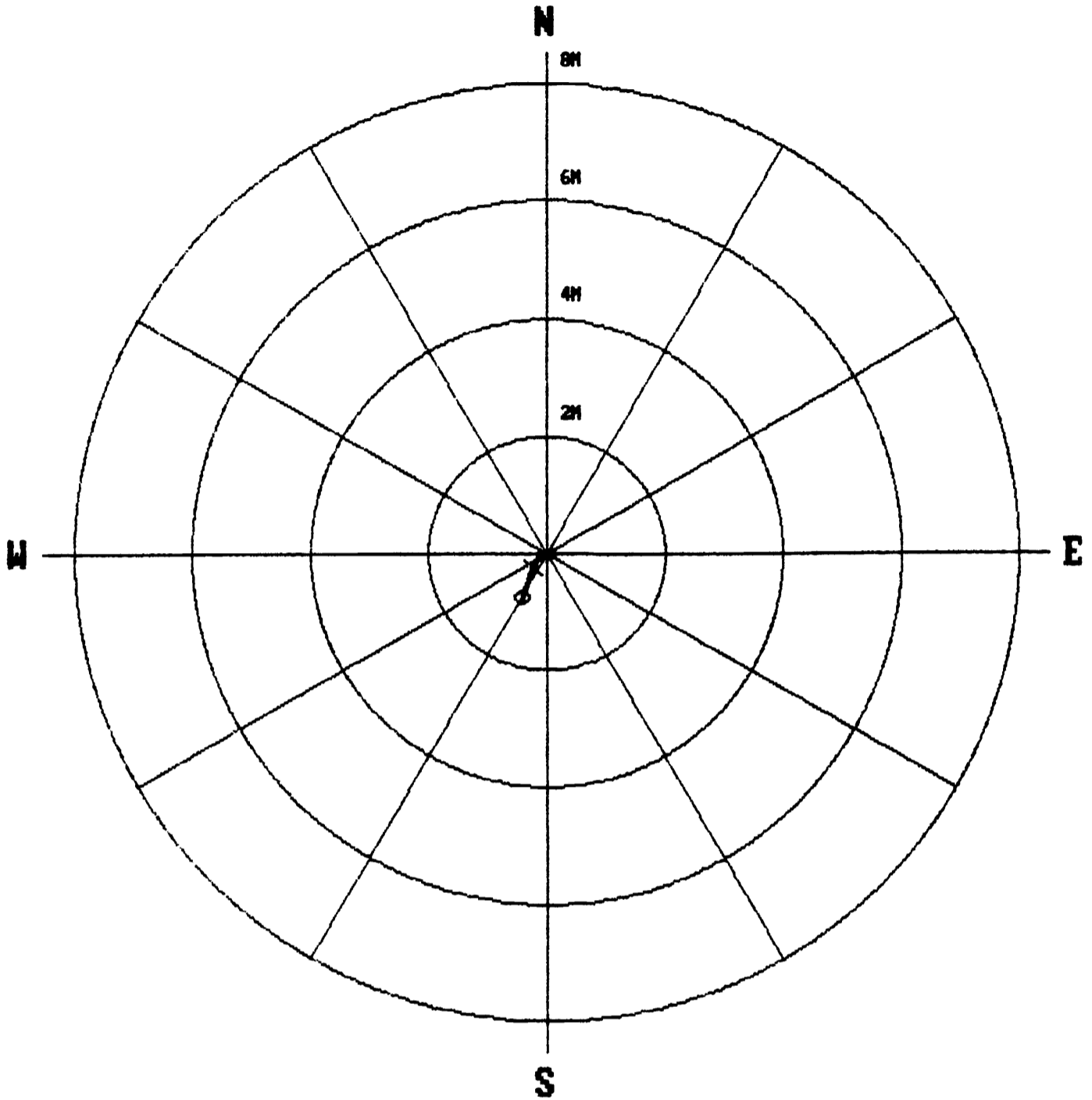


PLAN VIEW COMPU-LOG DEVIATION

CLIENT: PINE VALLEY COAL LTD.
 LOCATION: MILLON CREEK PROJECT
 HOLE ID: WRH-96-25C
 DATE OF LOG: 03/14/96
 PROBE: 9055A 58



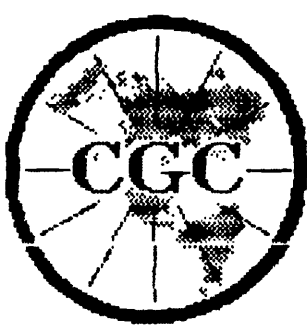
SCALE: 1 M/CM
 TRUE DEPTH: 33.28 M
 AZIMUTH: 208.7
 DISTANCE: 0.9 M
 + = 20 M INCR
 O = BOTTOM OF HOLE



* * * * * CUMPU-LOG - VERTICAL DEVIATION * * * * *

| | | | |
|--------------|-----------------------|-------------|----------------|
| CLIENT | : PINE VALLEY COAL LT | HOLE ID. | : WRH-96-25C |
| FIELD OFFICE | : CALGARY, A.B | DATE OF LOG | : 03/14/96 |
| DATA FROM | : | PROBE | : 9055A , 58 |
| MAG. DECL. | : 23.000 | DEPTH UNITS | : METERS LOG 1 |

| CABLE DEPTH | TRUE DEPTH | NORTH DEV. | EAST DEV. | DISTANCE | AZIMUTH | SANG | SANGB |
|-------------|------------|------------|-----------|----------|---------|------|-------|
| 2.9 | 2.90 | 0.00 | -0.00 | 0.0 | 316.2 | 0.6 | 316.2 |
| 3.3 | 3.30 | 0.00 | -0.01 | 0.0 | 304.2 | 1.2 | 293.9 |
| 5.3 | 5.30 | 0.01 | -0.02 | 0.0 | 292.3 | 0.3 | 282.7 |
| 7.3 | 7.30 | 0.00 | -0.05 | 0.0 | 274.6 | 0.9 | 254.4 |
| 9.3 | 9.30 | -0.01 | -0.07 | 0.1 | 261.0 | 1.1 | 234.9 |
| 11.3 | 11.30 | -0.04 | -0.10 | 0.1 | 251.1 | 0.9 | 234.7 |
| 13.3 | 13.30 | -0.06 | -0.13 | 0.1 | 244.6 | 1.1 | 220.7 |
| 15.3 | 15.30 | -0.10 | -0.15 | 0.2 | 237.4 | 1.4 | 208.5 |
| 17.3 | 17.30 | -0.14 | -0.18 | 0.2 | 231.6 | 1.6 | 207.3 |
| 19.3 | 19.30 | -0.20 | -0.21 | 0.3 | 226.2 | 1.6 | 204.5 |
| 21.3 | 21.30 | -0.26 | -0.23 | 0.4 | 221.7 | 2.6 | 210.5 |
| 23.3 | 23.29 | -0.33 | -0.26 | 0.4 | 218.2 | 2.4 | 205.2 |
| 25.3 | 25.29 | -0.41 | -0.29 | 0.5 | 215.1 | 2.4 | 194.8 |
| 27.3 | 27.29 | -0.48 | -0.31 | 0.6 | 213.0 | 2.6 | 194.2 |
| 29.3 | 29.29 | -0.57 | -0.34 | 0.7 | 211.1 | 2.6 | 197.3 |
| 31.3 | 31.29 | -0.66 | -0.38 | 0.8 | 209.8 | 2.8 | 203.2 |
| 33.3 | 33.28 | -0.75 | -0.41 | 0.9 | 208.7 | 2.7 | 202.9 |
| 33.3 | 33.28 | -0.75 | -0.41 | 0.9 | 208.7 | 2.7 | 202.9 |



Century GEOPHYSICAL CORP.

GAMMA-NEUTRON

COMPANY : PINE VALLEY COAL LTD.
 WELL : WRH-96-25C
 LOCATION/FIELD : WILLOW CREEK PROJECT
 COUNTY : PINE PASS
 STATE : BRITISH COLUMBIA
 SECTION : TOWNSHIP : RANGE :

OTHER SERVICES:
 9055
 9030

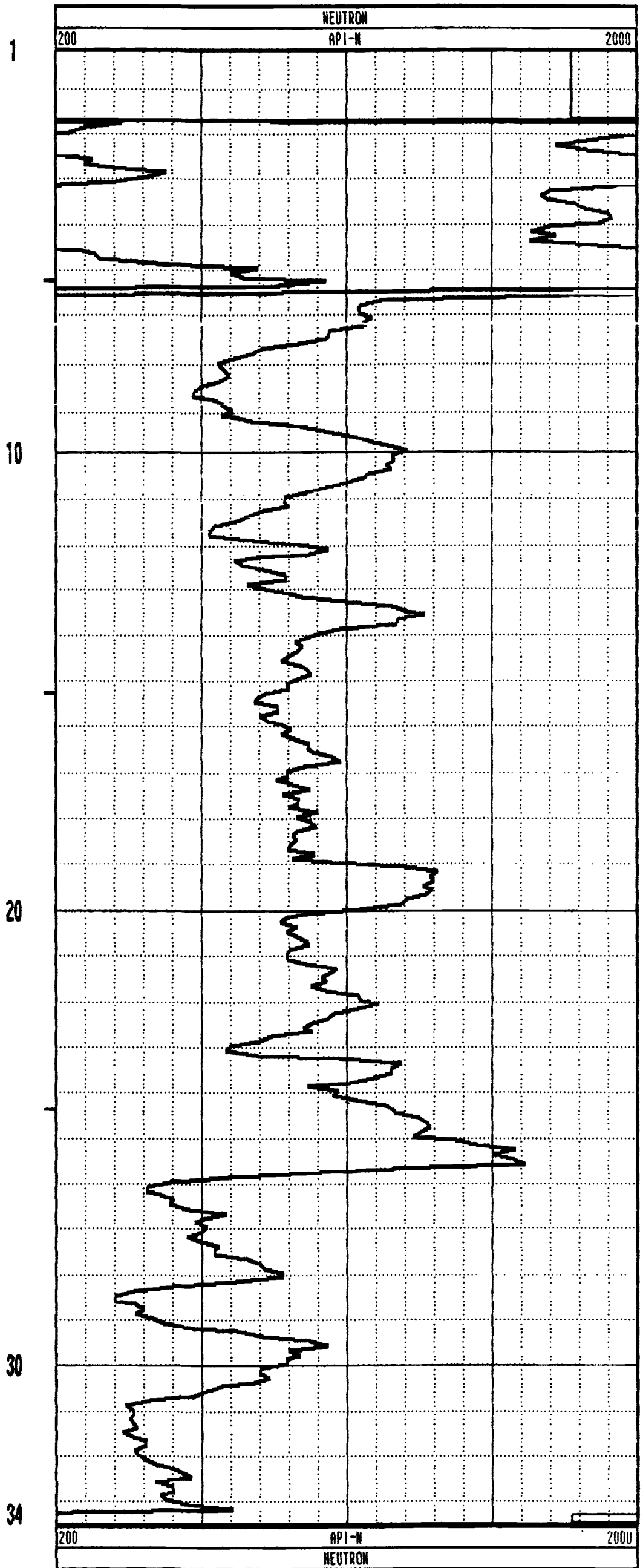
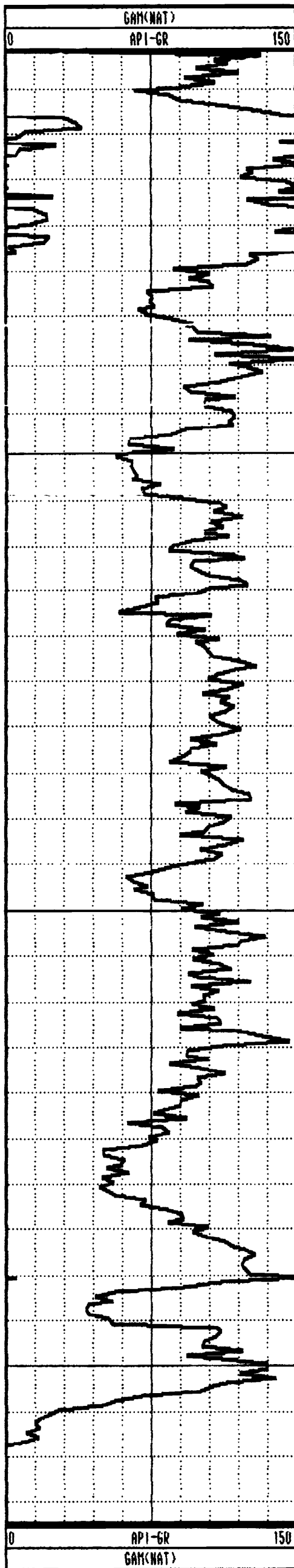
DATE : 03/14/96 PERMANENT DATUM : GROUND ELEVATIONS
 DEPTH DRILLER : 34 ELEV. PERM. DATUM: GROUND KB :
 LOG BOTTOM : 33.60 LOG MEASURED FROM: GL DF :
 LOG TOP : 1.30 DRL MEASURED FROM: GL GL :

CASING DRILLER : - LOGGING UNIT : 9603
 CASING TYPE : - FIELD OFFICE : CALGARY, A.B
 CASING THICKNESS: - RECORDED BY : B. BOONE

BIT SIZE : 14 BOREHOLE FLUID : H2O/AIR FILE : ORIGINAL.
 MAGNETIC DECL. : 23 RM : TYPE : 9055A
 MATRIX DENSITY : 2.65 RM TEMPERATURE : LOG : 0
 FLUID DENSITY : 1.1 MATRIX DELTA T : PLOT : SMOKY 7
 NEUTRON MATRIX : SANDSTONE FLUID DELTA T : THRESH: 10000

REMARKS :
 OPEN HOLE
 VERTICAL

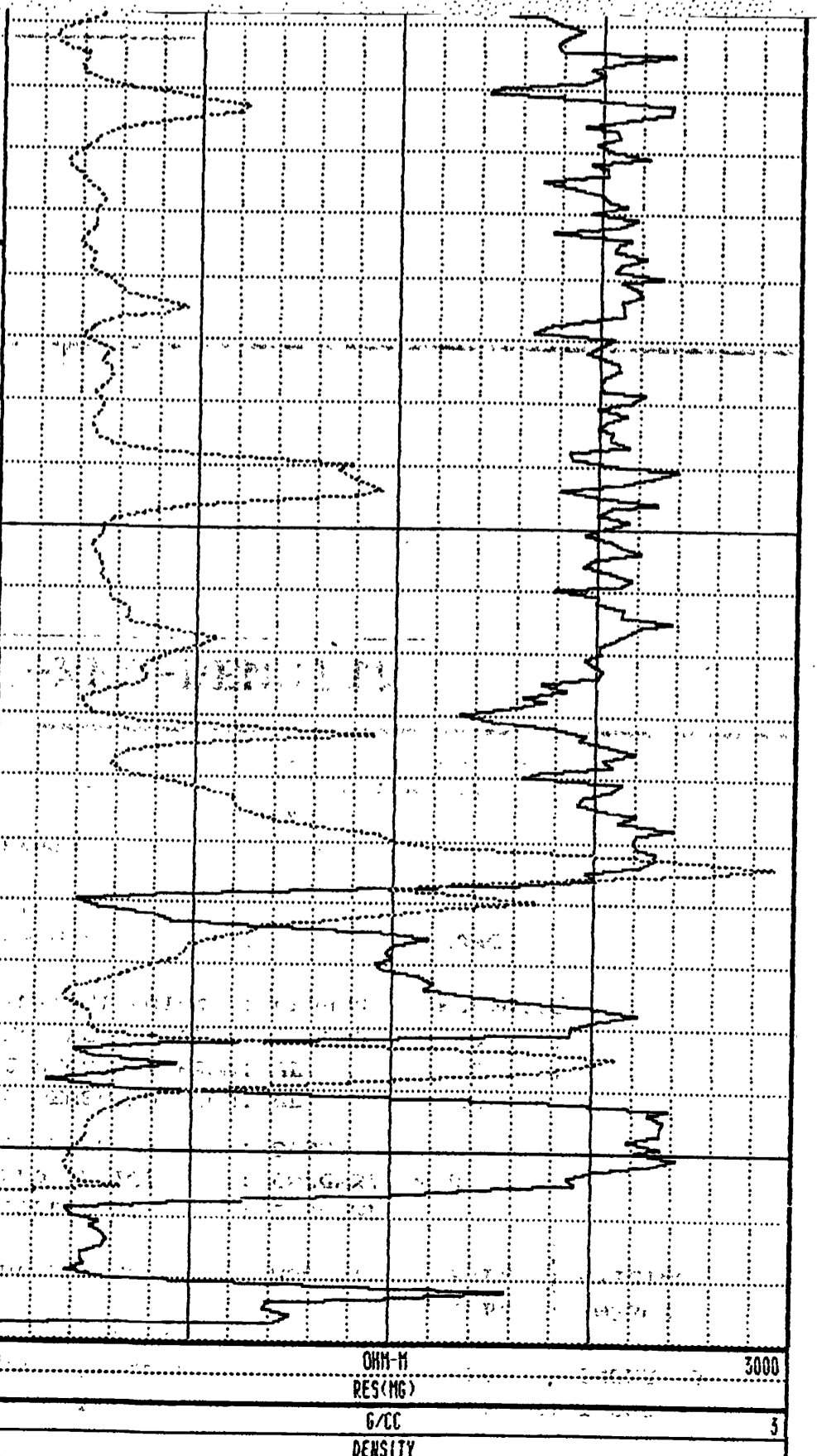
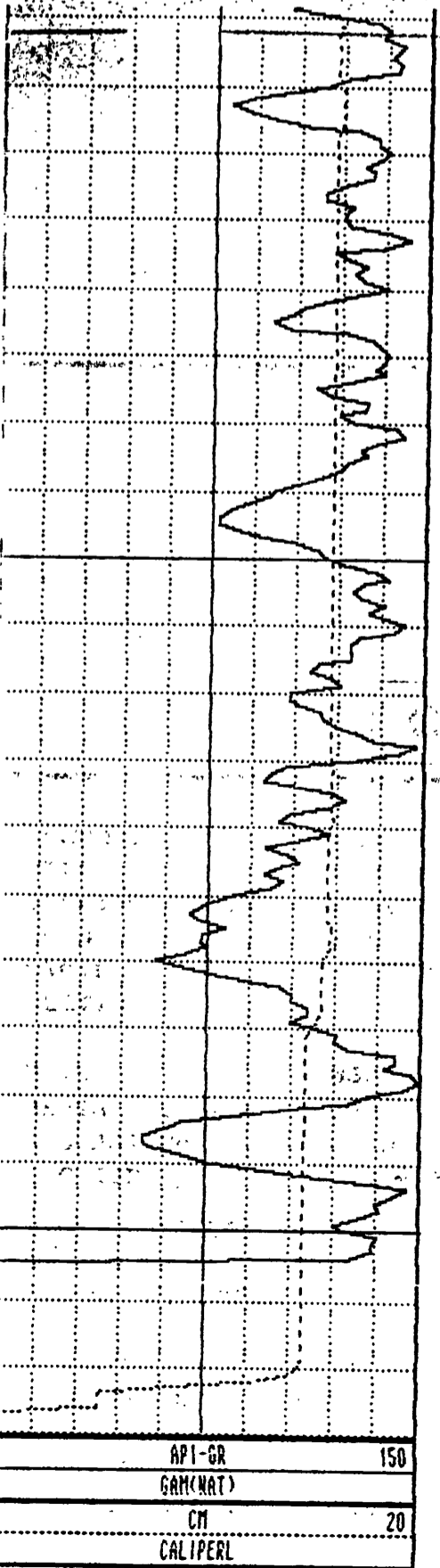
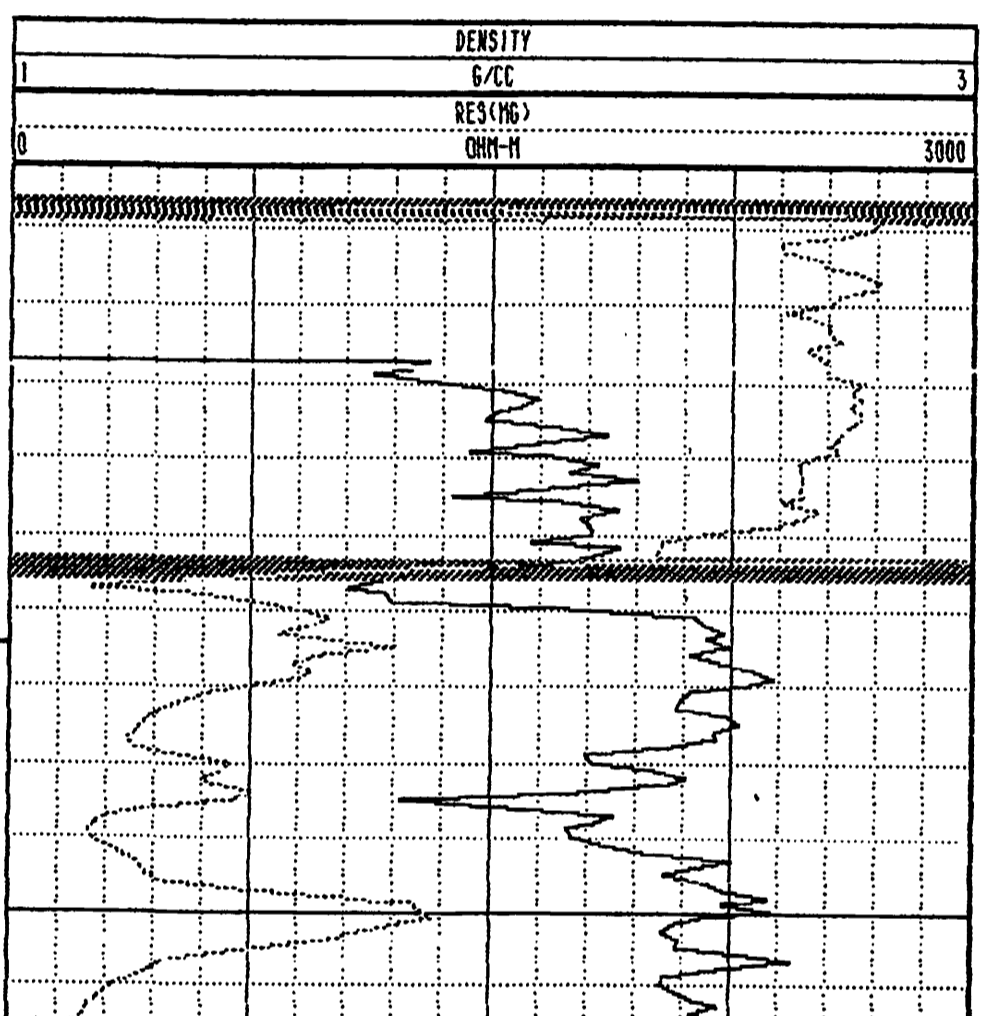
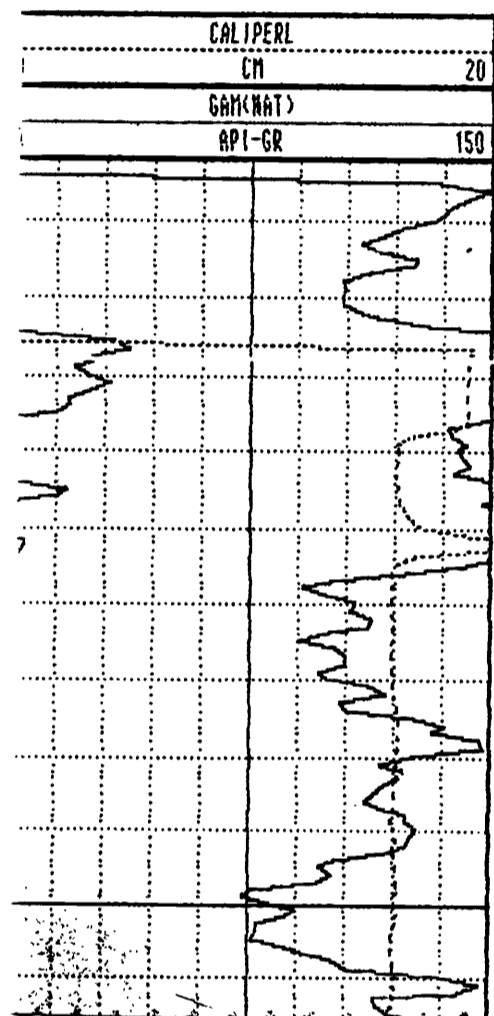
ALL SERVICES PROVIDED SUBJECT TO STANDARD TERMS AND CONDITIONS



GAMMA-RES-DENSITY

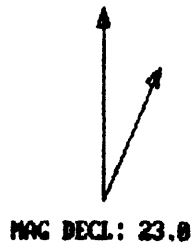
| | | | |
|-------------------|-------------------------|--------------------|---------------------------|
| COMPANY | : PINE VALLEY COAL LTD. | OTHER SERVICES: | |
| WELL | : WRH-96-25C | 9055 | |
| LOCATION/FIELD | : WILLOW CREEK PROJECT | 9030 | |
| COUNTY | : PINE PASS | | |
| STATE | : BRITISH COLUMBIA | | |
| SECTION | : TOWNSHIP | | RANGE : |
| DATE | : 03/14/96 | PERMANENT DATUM | : GROUND ELEVATIONS |
| DEPTH DRILLER | : 34 | ELEV. PERM. DATUM: | : GROUND KB : |
| LOG BOTTOM | : 33.10 | LOG MEASURED FROM: | : GL DF : |
| LOG TOP | : 0.50 | DRL MEASURED FROM: | : GL GL : |
| CASING DRILLER | : - | LOGGING UNIT | : 9603 |
| CASING TYPE | : - | FIELD OFFICE | : CALGARY, A.B |
| CASING THICKNESS: | - | RECORDED BY | : B. BOONE |
| BIT SIZE | : 14 | BOREHOLE FLUID | : H2O/AIR FILE : ORIGINAL |
| MAGNETIC DECL. | : 23 | RM | : TYPE : 9033AA |
| MATRIX DENSITY | : 2.65 | RM TEMPERATURE | : LOG : 2 |
| FLUID DENSITY | : 1.1 | MATRIX DELTA T | : PLOT : SMOKY 3 |
| NEUTRON MATRIX | : SANDSTONE | FLUID DELTA T | : THRESH: 10000 |
| REMARKS | : | | |
| OPEN HOLE | | | |
| VERTICAL | | | |

ALL SERVICES PROVIDED SUBJECT TO STANDARD TERMS AND CONDITIONS

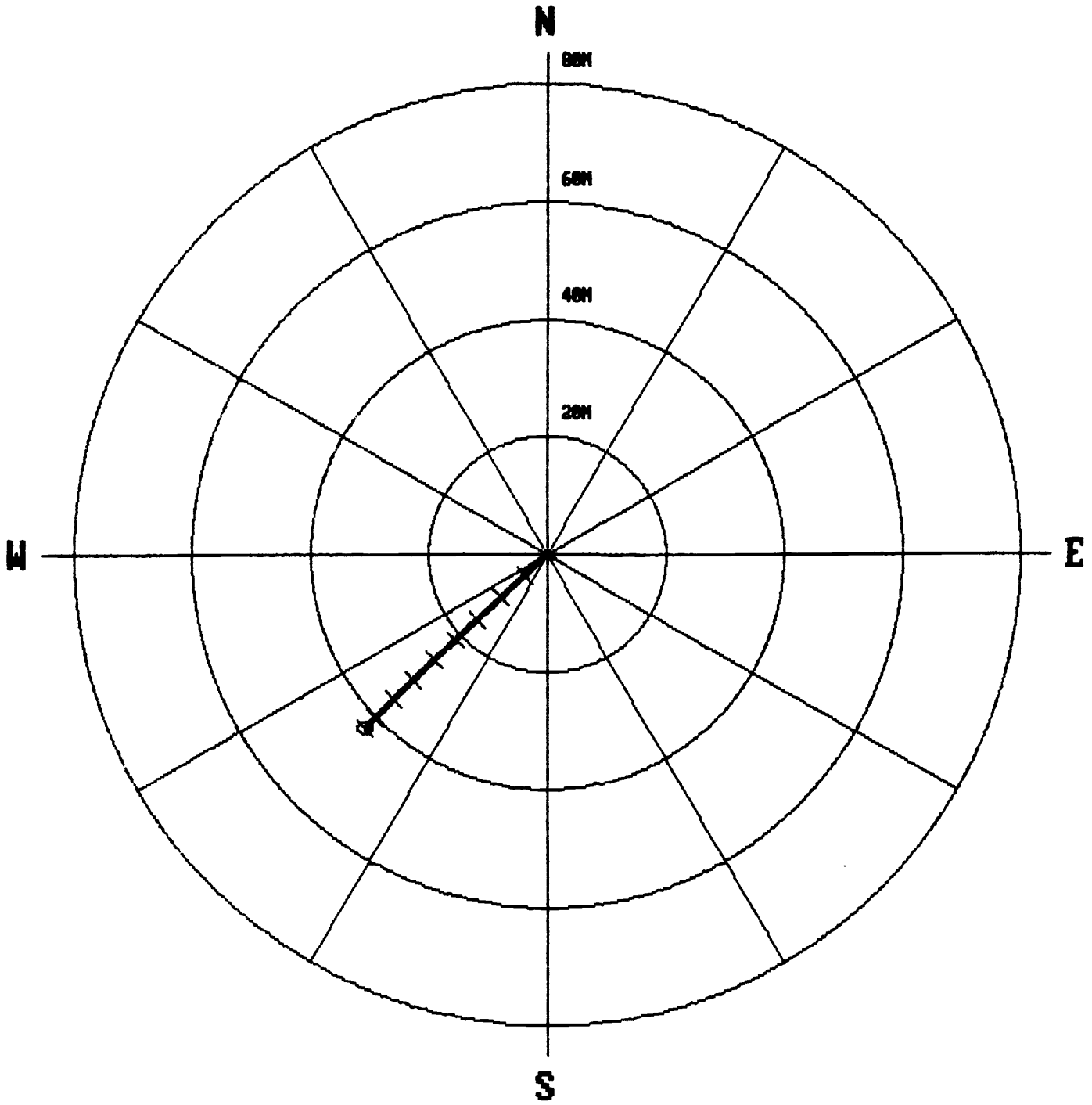


PLAN VIEW COMPU-LOG DEVIATION

CLIENT: PINE VALLEY COAL LTD.
 LOCATION: WILLOW CREEK PROJECT
 HOLE ID: WRH-96-027
 DATE OF LOG: 03/15/96
 PROBE: 9055A 58



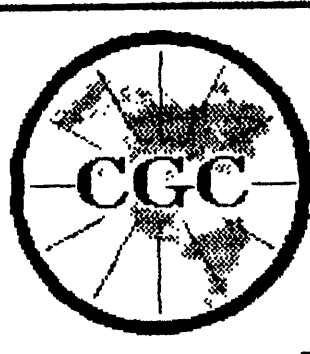
SCALE: 10 M/CM
 TRUE DEPTH: 95.49 M
 AZIMUTH: 226.4
 DISTANCE: 42.6 M
 + = 10 M INCR
 O = BOTTOM OF HOLE



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

| | | | |
|--------------|-----------------------|-------------|----------------|
| CLIENT | : PINE VALLEY COAL LT | HOLE ID. | : WRH-96-027 |
| FIELD OFFICE | : CALGARY, A.B | DATE OF LOG | : 03/15/96 |
| DATA FROM | : | PROBE | : 9055A , 58 |
| MAG. DECL. | : 23.000 | DEPTH UNITS | : METERS LOG 9 |

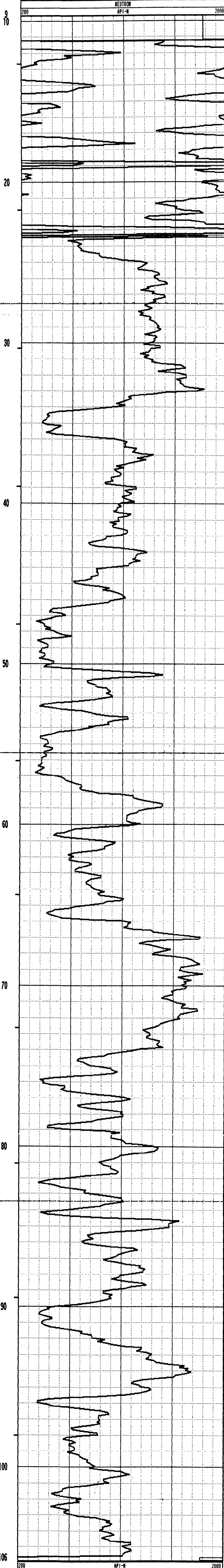
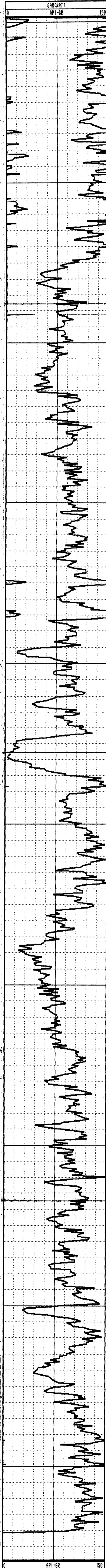
| CABLE DEPTH | TRUE DEPTH | NORTH DEV. | EAST DEV. | DISTANCE | AZIMUTH | SANG | SANGB |
|-------------|------------|------------|-----------|----------|---------|------|-------|
| 11.4 | 11.39 | -0.03 | -0.04 | 0.1 | 228.4 | 30.5 | 228.4 |
| 14.8 | 14.32 | -1.19 | -1.31 | 1.8 | 227.8 | 30.1 | 227.5 |
| 19.8 | 18.65 | -2.87 | -3.15 | 4.3 | 227.6 | 29.7 | 225.9 |
| 24.8 | 23.00 | -4.55 | -4.96 | 6.7 | 227.5 | 29.4 | 227.8 |
| 29.8 | 27.37 | -6.21 | -6.74 | 9.2 | 227.4 | 29.0 | 226.8 |
| 34.8 | 31.75 | -7.84 | -8.50 | 11.6 | 227.3 | 28.3 | 225.9 |
| 39.8 | 36.16 | -9.45 | -10.23 | 13.9 | 227.3 | 28.0 | 227.4 |
| 44.8 | 40.59 | -11.04 | -11.93 | 16.3 | 227.2 | 27.6 | 225.8 |
| 49.8 | 45.03 | -12.61 | -13.60 | 18.5 | 227.2 | 27.0 | 227.0 |
| 54.8 | 49.49 | -14.14 | -15.26 | 20.8 | 227.2 | 26.7 | 227.9 |
| 59.8 | 53.97 | -15.66 | -16.88 | 23.0 | 227.2 | 26.5 | 225.6 |
| 64.8 | 58.45 | -17.18 | -18.50 | 25.2 | 227.1 | 26.3 | 226.0 |
| 69.8 | 62.94 | -18.70 | -20.09 | 27.4 | 227.1 | 26.1 | 227.2 |
| 74.8 | 67.43 | -20.21 | -21.68 | 29.6 | 227.0 | 25.7 | 226.3 |
| 79.8 | 71.94 | -21.72 | -23.23 | 31.8 | 226.9 | 25.4 | 223.5 |
| 84.8 | 76.46 | -23.22 | -24.75 | 33.9 | 226.8 | 25.1 | 224.4 |
| 89.8 | 80.99 | -24.71 | -26.25 | 36.0 | 226.7 | 24.8 | 224.7 |
| 94.8 | 85.54 | -26.19 | -27.71 | 38.1 | 226.6 | 24.4 | 224.9 |
| 99.8 | 90.10 | -27.64 | -29.16 | 40.2 | 226.5 | 24.1 | 224.7 |
| 104.8 | 94.66 | -29.11 | -30.57 | 42.2 | 226.4 | 23.8 | 223.5 |
| 105.7 | 95.49 | -29.38 | -30.81 | 42.6 | 226.4 | 23.8 | 223.7 |



Century GEOPHYSICAL CORP.

GAMMA-NEUTRON

| | | | |
|--|---------------------------|--------------------|---------------------------|
| COMPANY | : PINE VALLEY COAL LTD. | OTHER SERVICES: | |
| WELL | : WPH-96-027 | 9055 | |
| LOCATION/FIELD | : WILLOW CREEK PROJECT | 9030 | |
| COUNTY | : PINE PASS | | |
| STATE | : BRITISH COLUMBIA | | |
| SECTION | : TOWNSHIP | RANGE | : |
| DATE | : 03/15/96 | PERMANENT DATUM | : GROUND ELEVATIONS |
| DEPTH DRILLER | : 110 | ELEV. PERM. DATUM: | GROUND KB : |
| LOG BOTTOM | : 106.00 | LOG MEASURED FROM: | GL DF : |
| LOG TOP | : 9.80 | DRL MEASURED FROM: | GL GL : |
| CASING DRILLER | : 3.7 | LOGGING UNIT | : 9603 |
| CASING TYPE | : STEEL | FIELD OFFICE | : CALGARY, A.B |
| CASING THICKNESS: | - | RECORDED BY | : B. BOONE |
| BIT SIZE | : 14 | BOREHOLE FLUID | : H2O/AIR FILE : ORIGINAL |
| MAGNETIC DECL. | : 23 | RM | : TYPE : 9055A |
| MATRIX DENSITY | : 2.65 | RM TEMPERATURE | : LOG : 7 |
| FLUID DENSITY | : 1.1 | MATRIX DELTA I | : PLOT : SMOKY 7 |
| NEUTRON MATRIX | : SANDSTONE FLUID DELTA I | | : THRESH: 10000 |
| REMARKS | : | | |
| OPEN HOLE | | | |
| HOLE DEVIATED TO 60 DEG. | | | |
| ALL SERVICES PROVIDED SUBJECT TO STANDARD TERMS AND CONDITIONS | | | |



GAMMA-RES-DENSITY

COMPANY : PINE VALLEY COAL LTD.
 WELL : WRH-96-027
 LOCATION/FIELD : WILLOW CREEK PROJECT
 COUNTY : PINE PASS
 STATE : BRITISH COLUMBIA
 SECTION : TOWNSHIP : RANGE :

OTHER SERVICES:
 9855
 9838

DATE : 03/15/96
 DEPTH DRILLER : 110
 LOG BOTTOM : 185.50
 LOG TOP : 5.60

PERMANENT DATUM : GROUND
 ELEV. PERM. DATUM: GROUND
 LOG MEASURED FROM: GL
 DRL MEASURED FROM: GL

ELEVATIONS
 KB :
 DF :
 GL :

CASING DRILLER : 3.7
 CASING TYPE : STEEL
 CASING THICKNESS: -

LOGGING UNIT : 9603
 FIELD OFFICE : CALGARY, A.B
 RECORDED BY : B. BOONE

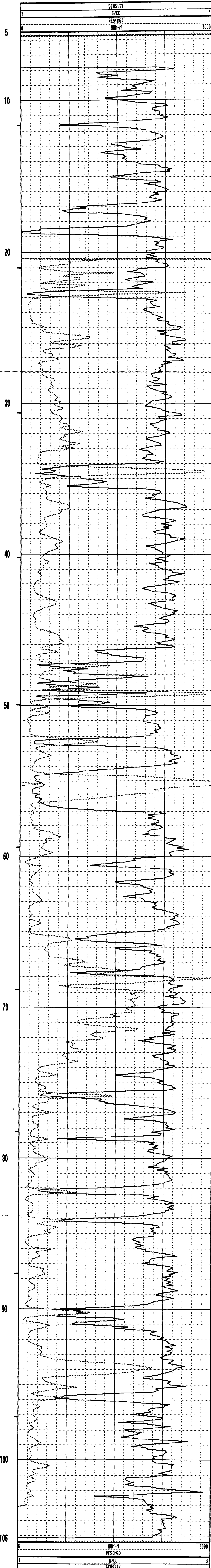
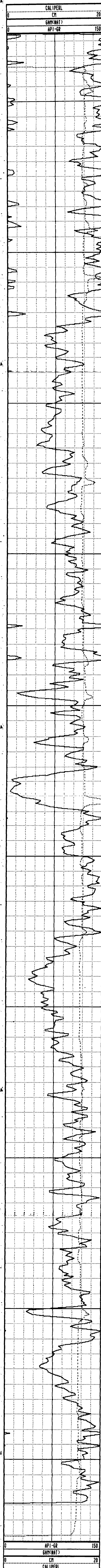
BIT SIZE : 14
 MAGNETIC DECL. : 23
 MATRIX DENSITY : 2.65
 FLUID DENSITY : 1.1
 NEUTRON MATRIX : SANDSTONE

BOREHOLE FLUID : H2O/AIR
 RM :
 RM TEMPERATURE :
 MATRIX DELTA T :
 FLUID DELTA T :

FILE : ORIGINAL
 TYPE : 9833AA
 LOG : 8
 PLOT : SMOKY 3
 THRESH: 10000

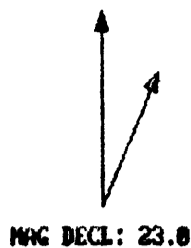
REMARKS :
 OPEN HOLE
 HOLE DEVIATED TO 60 DEG.

ALL SERVICES PROVIDED SUBJECT TO STANDARD TERMS AND CONDITIONS

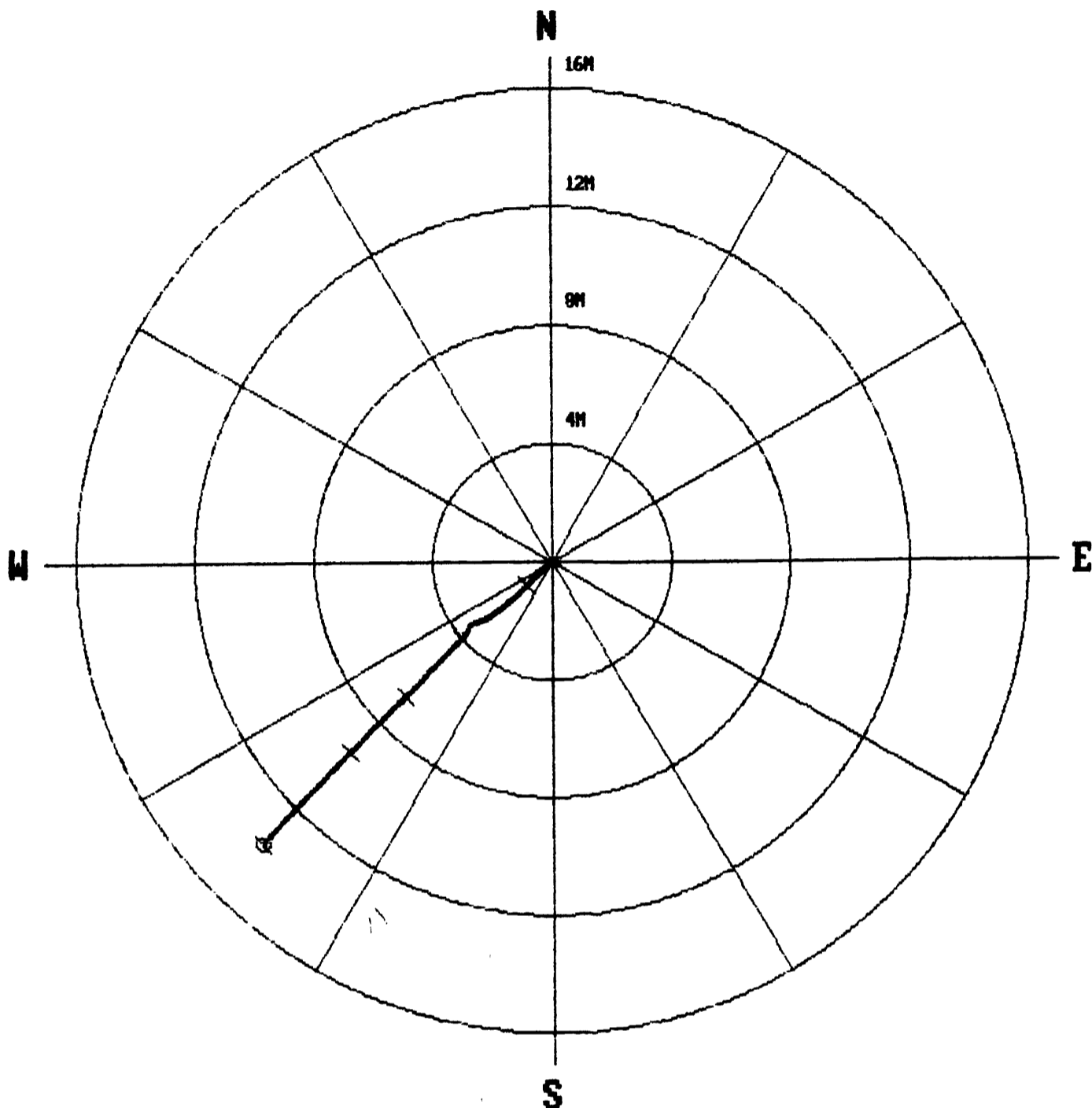


PLAN VIEW COMPU-LOG DEVIATION

CLIENT: PINE VALLEY COAL LTD.
 LOCATION: WILLOW CREEK PROJECT
 HOLE ID: WRH-96-028
 DATE OF LOG: 03/16/96
 PROBE: 9055A 58



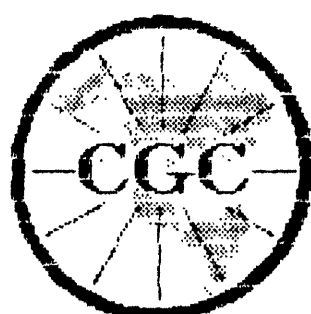
SCALE: 2 M/CM
 TRUE DEPTH: 33.07 M
 AZIMUTH: 225.7
 DISTANCE: 13.6 M
 + = 5 M INCR
 O = BOTTOM OF HOLE



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

| | | | |
|--------------|-----------------------|-------------|----------------|
| CLIENT | : PINE VALLEY COAL LT | HOLE ID. | : WRH-96-028 |
| FIELD OFFICE | : CALGARY, A.B | DATE OF LOG | : 03/16/96 |
| DATA FROM | : | PROBE | : 9055A , 58 |
| MAG. DECL. | : 23.000 | DEPTH UNITS | : METERS LOG 2 |

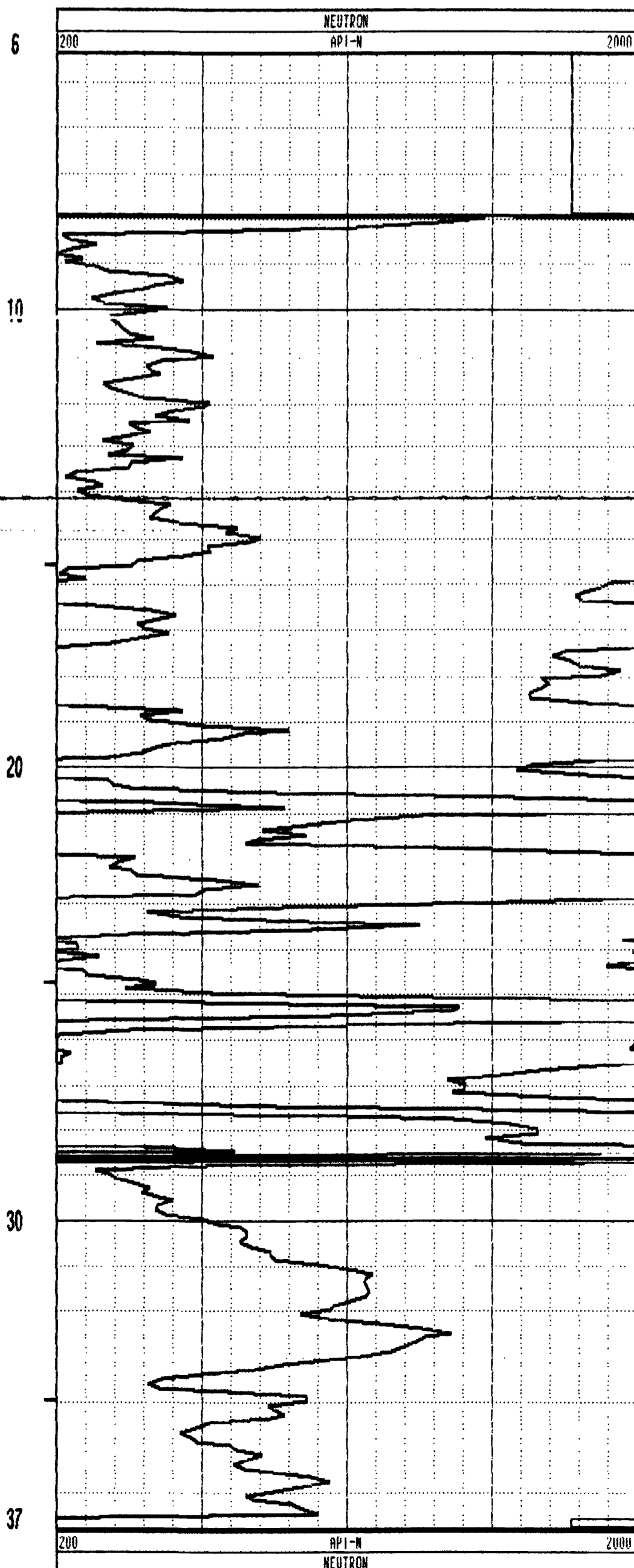
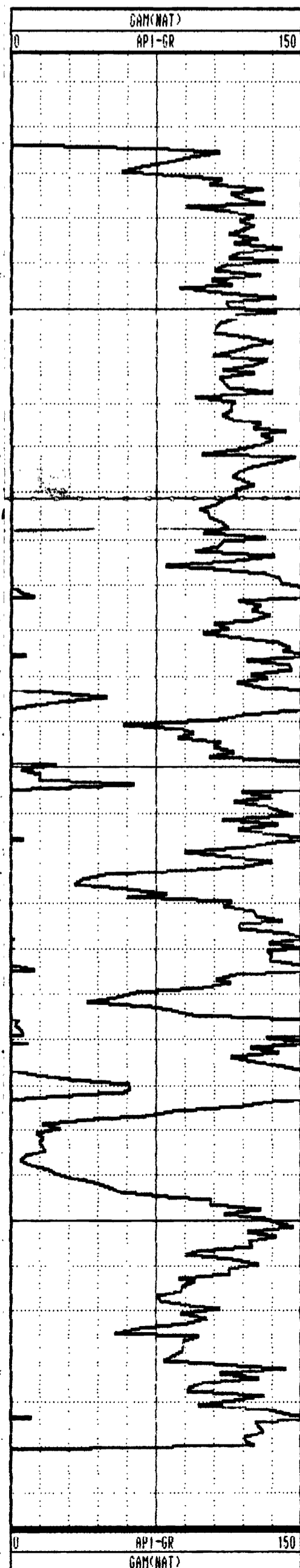
| CABLE DEPTH | TRUE DEPTH | NORTH DEV. | EAST DEV. | DISTANCE | AZIMUTH | SANG | SANGB |
|-------------|------------|------------|-----------|----------|---------|------|-------|
| 8.1 | 8.09 | -0.03 | -0.04 | 0.1 | 231.2 | 30.2 | 231.2 |
| 8.5 | 8.43 | -0.17 | -0.18 | 0.3 | 227.1 | 30.2 | 227.0 |
| 10.5 | 10.16 | -0.86 | -0.91 | 1.3 | 226.6 | 30.2 | 226.7 |
| 12.5 | 11.88 | -1.53 | -1.68 | 2.3 | 227.5 | 30.4 | 230.3 |
| 14.5 | 13.59 | -2.06 | -2.57 | 3.3 | 231.3 | 32.3 | 252.1 |
| 16.5 | 15.34 | -2.72 | -3.16 | 4.2 | 229.3 | 27.7 | 227.7 |
| 18.5 | 17.10 | -3.39 | -3.82 | 5.1 | 228.4 | 28.5 | 225.4 |
| 20.5 | 18.86 | -4.08 | -4.49 | 6.1 | 227.8 | 28.7 | 224.6 |
| 22.5 | 20.61 | -4.76 | -5.17 | 7.0 | 227.4 | 29.0 | 225.2 |
| 24.5 | 22.37 | -5.43 | -5.85 | 8.0 | 227.1 | 28.4 | 226.9 |
| 26.5 | 24.13 | -6.12 | -6.50 | 8.9 | 226.8 | 28.2 | 223.3 |
| 28.5 | 25.89 | -6.78 | -7.17 | 9.9 | 226.6 | 27.9 | 225.0 |
| 30.5 | 27.66 | -7.46 | -7.81 | 10.8 | 226.3 | 27.6 | 225.0 |
| 32.5 | 29.43 | -8.13 | -8.46 | 11.7 | 226.2 | 27.9 | 227.6 |
| 34.5 | 31.20 | -8.80 | -9.11 | 12.7 | 226.0 | 27.6 | 224.8 |
| 36.5 | 32.98 | -9.48 | -9.71 | 13.6 | 225.7 | 26.6 | 221.0 |
| 38.6 | 33.07 | -9.51 | -9.74 | 13.6 | 225.7 | 26.5 | 222.6 |



Century GEOPHYSICAL CORP.

GAMMA-NEUTRON

| | | | | |
|--|-------------------------|---------------------------|----------------|-----------------|
| COMPANY | : PINE VALLEY COAL LTD. | OTHER SERVICES: | | |
| WELL | : WRH-96-028 | 9055 | | |
| LOCATION/FIELD | : WILLOW CREEK PROJECT | 9030 | | |
| COUNTY | : PINE PASS | | | |
| STATE | : BRITISH COLUMBIA | | | |
| SECTION | : TOWNSHIP | RANGE : | | |
| DATE | : 03/16/96 | PERMANENT DATUM : GROUND | ELEVATIONS | |
| DEPTH DRILLER | : 38.5 | ELEV. PERM. DATUM: GROUND | KB : | |
| LOG BOTTOM | : 36.50 | LOG MEASURED FROM: GL | DF : | |
| LOG TOP | : 6.50 | DRL MEASURED FROM: CL | CL : | |
| CASING DRILLER | : 4 | LOGGING UNIT | : 9603 | |
| CASING TYPE | : STEEL | FIELD OFFICE | : CALGARY, A.B | |
| CASING THICKNESS: | | RECORDED BY | : B.DOONE | |
| RIT SIZE | : 14 | BOREHOLE FLUID | : H2O/AIR | FILE : ORIGINAL |
| MAGNETIC DECL. | : 23 | RM | : | TYPE : 9055A |
| MATRIX DENSITY | : 2.65 | RM TEMPERATURE | : | LOG : 0 |
| FLUID DENSITY | : 1.1 | MATRIX DELTA T | : | PLOT : SMOKY 7 |
| NEUTRON MATRIX | : SANDSTONE | FLUID DELTA T | : | THRESH: 10000 |
| REMARKS | : | | | |
| OPEN HOLE | | | | |
| HOLE DEVIATED TO 60 DEG. | | | | |
| ALL SERVICES PROVIDED SUBJECT TO STANDARD TERMS AND CONDITIONS | | | | |



GAMMA-RES-DENSITY

COMPANY : PINE VALLEY COAL LTD.
 WELL : WRH-96-028
 LOCATION/FIELD : WILLOW CREEK PROJECT
 COUNTY : PINE PASS
 STATE : BRITISH COLUMBIA
 SECTION : TOWNSHIP : RANGE :

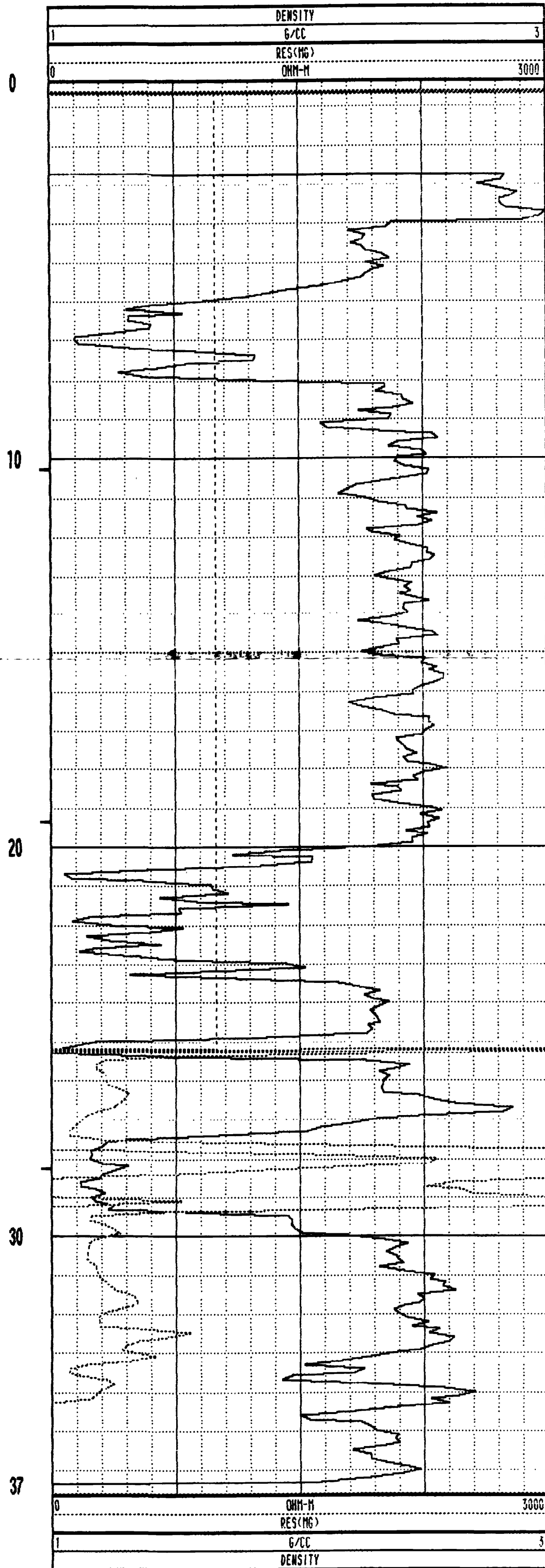
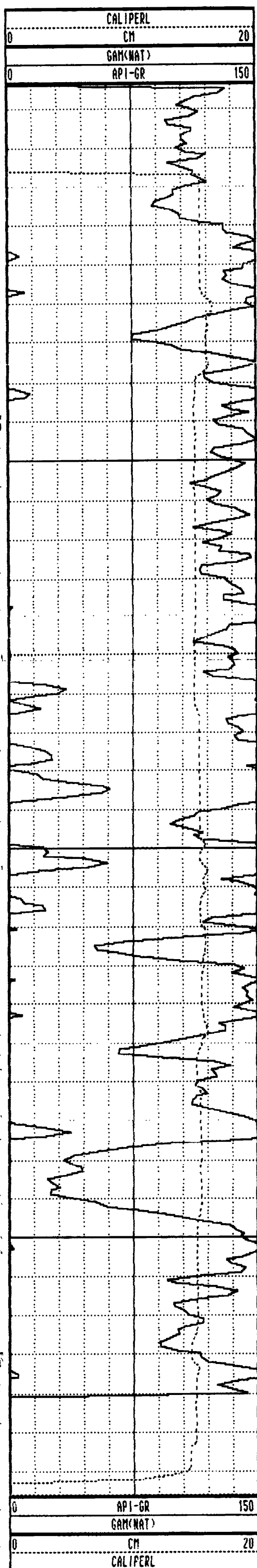
DATE : 03/16/96 PERMANENT DATUM : GROUND ELEVATIONS
 DEPTH DRILLER : 38.5 ELEV. PERM. DATUM: GROUND KB :
 LOG BOTTOM : 36.70 LOG MEASURED FROM: GL DF :
 LOG TOP : 0.50 DRL MEASURED FROM: GL GL :

CASING DRILLER : 4 LOGGING UNIT : 9603
 CASING TYPE : STEEL FIELD OFFICE : CALGARY, A.B
 CASING THICKNESS: - RECORDED BY : B. BOONE

OTHER SERVICES:
 9055
 9030

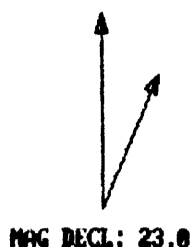
BIT SIZE : 14 BOREHOLE FLUID : H2O/AIR FILE : ORIGINAL
 MAGNETIC DECL. : 23 RM : TYPE : 9033AA
 MATRIX DENSITY : 2.65 RM TEMPERATURE : LOG : 1
 FLUID DENSITY : 1.1 MATRIX DELTA T : PLOT : SMOKY 3
 NEUTRON MATRIX : SANDSTONE FLUID DELTA T : THRESH: 10000
 REMARKS :
 OPEN HOLE
 HOLE DEVIATED TO 60 DEG.

ALL SERVICES PROVIDED SUBJECT TO STANDARD TERMS AND CONDITIONS

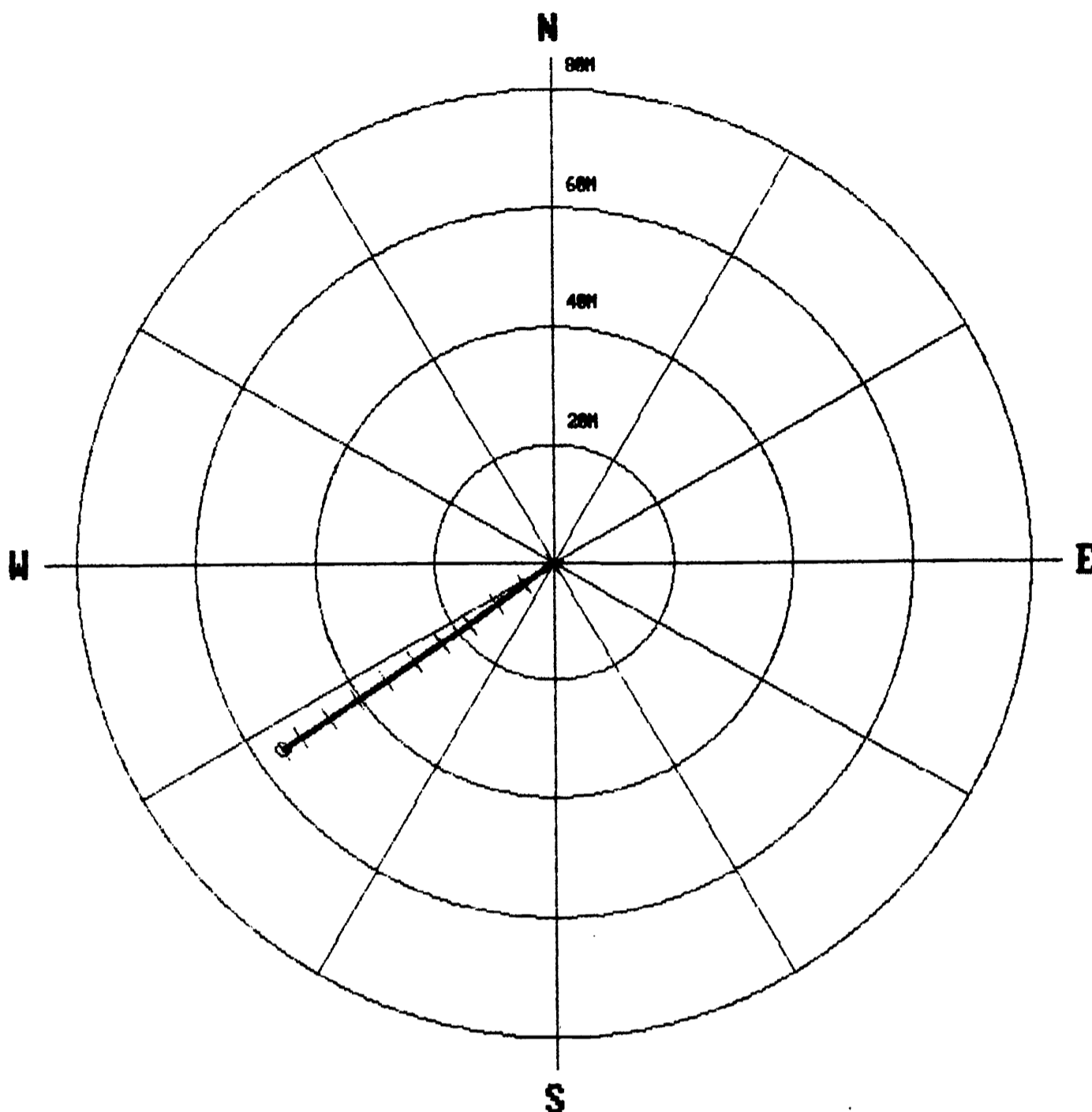


PLAN VIEW COMPU-LOG DEVIATION

CLIENT: PINE VALLEY COAL LTD.
 LOCATION: MILLUM CREEK PROJECT
 HOLE ID: WRH-96-029
 DATE OF LOG: 03/16/96
 PROBE: 9055A 58



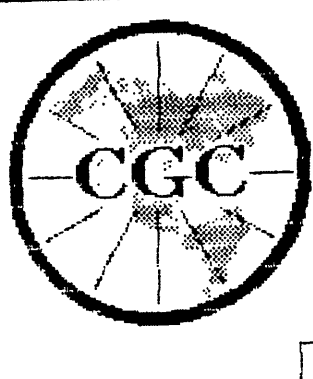
SCALE: 10 M/CM
 TRUE DEPTH: 106.08 M
 AZIMUTH: 235.4
 DISTANCE: 55.4 M
 + = 10 M INCR
 O = BOTTOM OF HOLE



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

CLIENT : PINE VALLEY COAL LT HOLE ID. : WRH-96-029
 FIELD OFFICE : CALGARY, A.B. DATE OF LOG : 03/16/96
 DATA FROM : PROBE : 9055A , 58
 MAG. DECL. : 23.000 DEPTH UNITS : METERS LOG B

| CABLE DEPTH | TRUE DEPTH | NORTH DEV. | EAST DEV. | DISTANCE | AZIMUTH | SANG | SANGB |
|-------------|------------|------------|-----------|----------|---------|------|-------|
| 9.9 | 9.89 | -0.03 | -0.04 | 0.1 | 238.5 | 31.2 | 238.5 |
| 13.3 | 12.80 | -1.01 | -1.50 | 1.8 | 236.0 | 31.0 | 235.0 |
| 18.3 | 17.09 | -2.51 | -3.57 | 4.4 | 234.9 | 30.5 | 232.5 |
| 23.3 | 21.40 | -4.02 | -5.60 | 6.9 | 234.3 | 30.1 | 233.7 |
| 28.3 | 25.73 | -5.52 | -7.62 | 9.4 | 234.1 | 29.9 | 233.9 |
| 33.3 | 30.07 | -6.99 | -9.60 | 11.9 | 233.9 | 29.4 | 234.1 |
| 38.3 | 34.43 | -8.44 | -11.58 | 14.3 | 233.9 | 29.5 | 232.1 |
| 43.3 | 38.78 | -9.88 | -13.58 | 16.8 | 234.0 | 29.5 | 233.3 |
| 48.3 | 43.13 | -11.31 | -15.58 | 19.3 | 234.0 | 30.0 | 235.0 |
| 53.3 | 47.47 | -12.73 | -17.62 | 21.7 | 234.2 | 30.0 | 235.4 |
| 58.3 | 51.81 | -14.15 | -19.66 | 24.2 | 234.2 | 29.7 | 234.2 |
| 63.3 | 56.16 | -15.55 | -21.69 | 26.7 | 234.4 | 29.4 | 235.9 |
| 68.3 | 60.51 | -16.97 | -23.69 | 29.1 | 234.4 | 30.0 | 235.5 |
| 73.3 | 64.85 | -18.35 | -25.75 | 31.6 | 234.5 | 30.0 | 231.0 |
| 78.3 | 69.16 | -19.76 | -27.84 | 34.1 | 234.6 | 30.3 | 236.1 |
| 83.3 | 73.49 | -21.15 | -29.94 | 36.7 | 234.8 | 30.1 | 235.9 |
| 88.3 | 77.82 | -22.53 | -32.01 | 39.1 | 234.9 | 29.8 | 235.8 |
| 93.3 | 82.16 | -23.90 | -34.09 | 41.6 | 235.0 | 30.0 | 235.9 |
| 98.3 | 86.49 | -25.29 | -36.15 | 44.1 | 235.0 | 30.4 | 235.1 |
| 103.3 | 90.82 | -26.67 | -38.24 | 46.6 | 235.1 | 29.9 | 236.5 |
| 108.3 | 95.16 | -28.06 | -40.30 | 49.1 | 235.2 | 29.9 | 237.8 |
| 113.3 | 99.50 | -29.43 | -42.37 | 51.6 | 235.2 | 29.7 | 240.0 |
| 118.3 | 103.84 | -30.78 | -44.46 | 54.1 | 235.3 | 30.1 | 235.8 |
| 120.9 | 106.08 | -31.47 | -45.59 | 55.4 | 235.4 | 30.8 | 237.4 |



GAMMA-NEUTRON

COMPANY : PINE VALLEY COAL LTD.
WELL : WRH-96-029
LOCATION/FIELD : WILLOW CREEK PROJECT
COUNTY : PINE PASS
STATE : BRITISH COLUMBIA
SECTION : TOWNSHIP :

OTHER SERVICES:
9955
9030

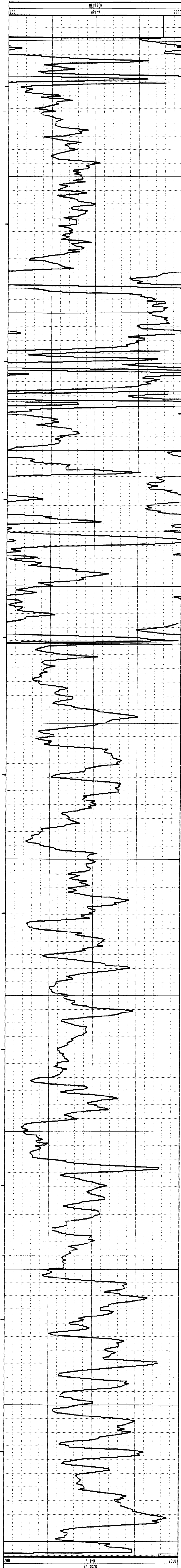
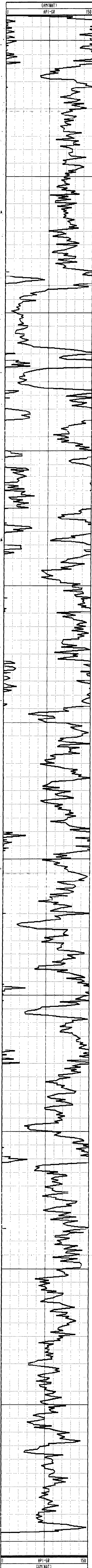
DATE : 03/16/96 PERMANENT DATUM : GROUND ELEVATIONS
DEPTH DRILLER : 120 ELEV. PERM. DATUM: GROUND KB :
LOG BOTTOM : 121.20 LOG MEASURED FROM: GL DF :
LOG TOP : 8.30 DEL MEASURED FROM: GL GL :

CASING DRILLER : 3 LOGGING UNIT : 9603
CASING TYPE : STEEL FIELD OFFICE : CALGARY, A.B
CASING THICKNESS: 0.65 RECORDED BY : B. BOONE

BIT SIZE : 14 BOREHOLE FLUID : H2O/ATR FILE : ORIGINAL
MAGNETIC DECL. : 23 RM : TYPE : 9055A
MATRIX DENSITY : 2.65 RM TEMPERATURE : LOG : 6
FLUID DENSITY : 1.1 MATRIX DELTA T : PLOT : SMOKY 7
NEUTRON MATRIX : SANDSTONE FLUID DELTA T : THRESH: 10900

REMARKS :
OPEN HOLE
HOLE DEVIATED TO 60 DEG.

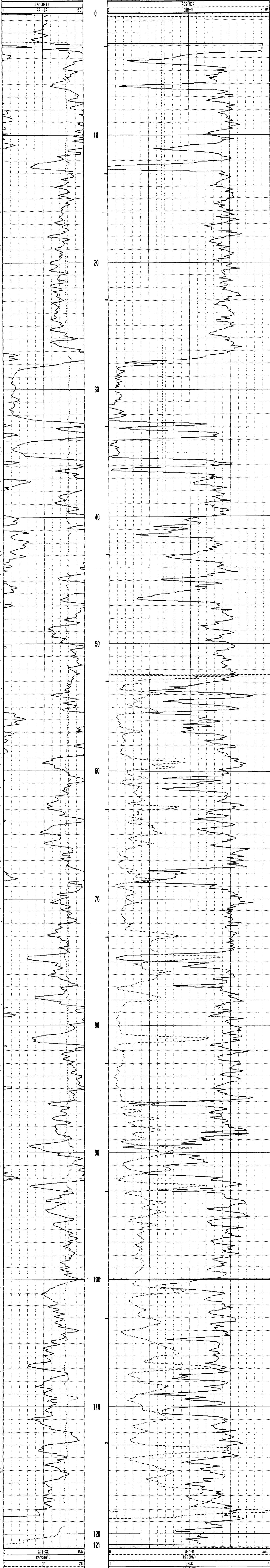
ALL SERVICES PROVIDED SUBJECT TO STANDARD TERMS AND CONDITIONS



GAMMA-RES-DENSITY

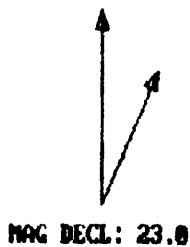
| | |
|--|--|
| <p>COMPANY : PINE VALLEY COAL LTD.
 WELL : WPH-96-029
 LOCATION/FIELD : WILLOW CREEK PROJECT
 COUNTY : PINE PASS
 STATE : BRITISH COLUMBIA
 SECTION : TOWNSHIP : RANGE :</p> <p>DATE : 03/16/96
 DEPTH DRILLER : 120
 LOG BOTTOM : 121.20
 LOG TOP : 0.60</p> <p>CASING DRILLER : 3
 CASING TYPE : STEEL
 CASING THICKNESS: 0.65</p> <p>BIT SIZE : 14
 MAGNETIC DECL. : 23
 MATRIX DENSITY : 2.65
 FLUID DENSITY : 1.1
 NEUTRON MATRIX : SANDSTONE
 REMARKS :
 OPEN HOLE
 HOLE DEVIATED TO 60 DEG.</p> | <p>OTHER SERVICES:
 9055
 9030</p> <p>PERMANENT DATUM : GROUND
 ELEV. PERM. DATUM: GROUND
 LOG MEASURED FROM: GL
 DRL MEASURED FROM: GL</p> <p>ELEVATIONS
 KB :
 DF :
 GL :</p> <p>LOGGING UNIT : 9603
 FIELD OFFICE : CALGARY, A.B
 RECORDED BY : B. BOONE</p> <p>BOREHOLE FLUID : H2O/AIR
 RM :
 RM TEMPERATURE :
 MATRIX DELTA T :
 FLUID DELTA T :</p> <p>FILE : ORIGINAL
 TYPE : 9033AA
 LOG : 7
 PLOT : SMOKY 3
 THRESH: 10000</p> |
|--|--|

ALL SERVICES PROVIDED SUBJECT TO STANDARD TERMS AND CONDITIONS

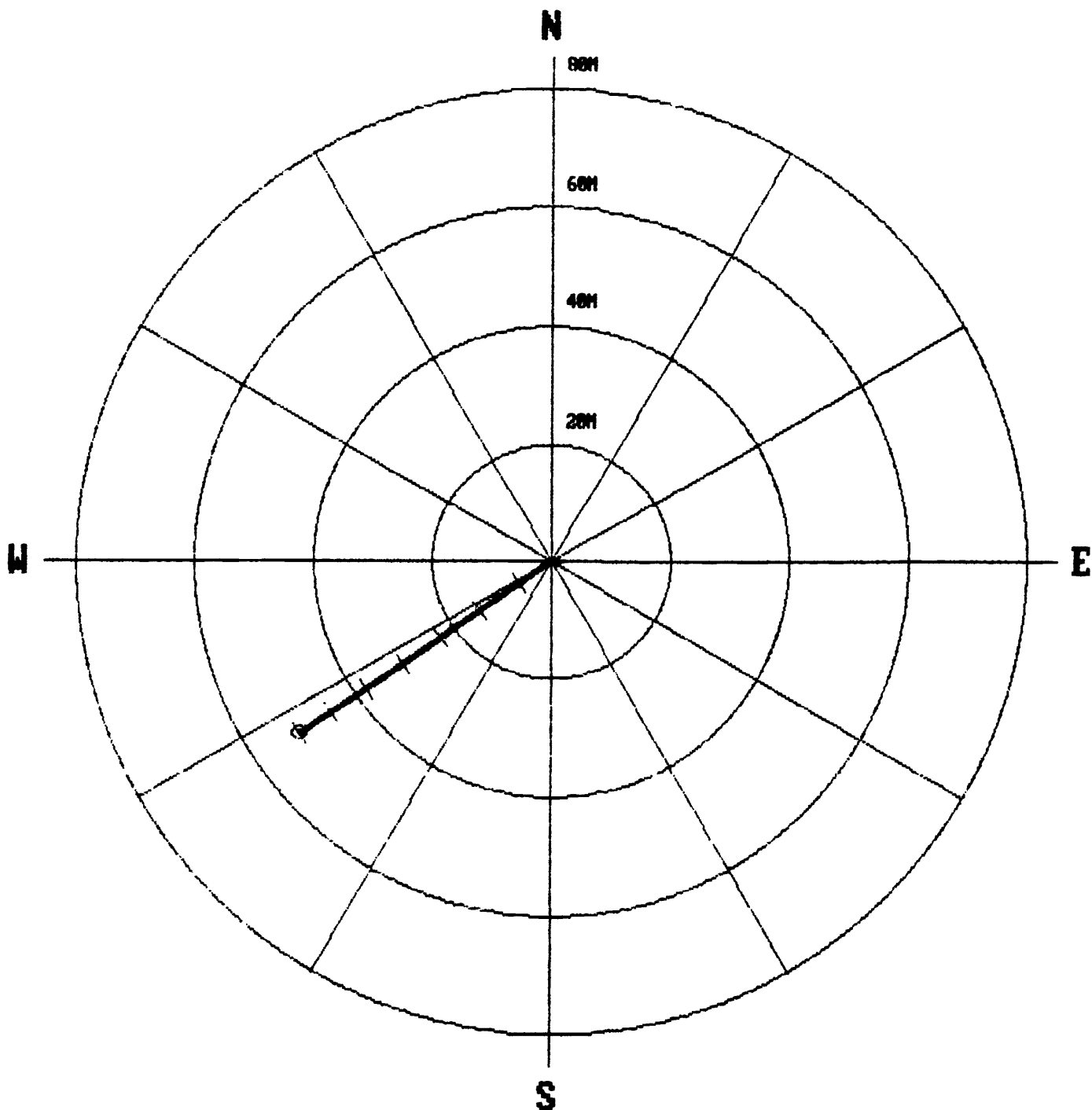


PLAN VIEW COMPU-LOG DEVIATION

CLIENT: PINE VALLEY COAL LTD.
 LOCATION: WILLOW CREEK PROJECT
 HOLE ID: WRH-96-030
 DATE OF LOG: 03/17/96
 PROBE: 9055A 58



SCALE: 10 M/CM
 TRUE DEPTH: 79.17 M
 AZIMUTH: 235.4
 DISTANCE: 51.3 M
 + = 10 M INCR
 O = BOTTOM OF HOLE



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

| | | | |
|--------------|-----------------------|-------------|----------------|
| CLIENT | : PINE VALLEY COAL LT | HOLE ID. | : WRH-96-030 |
| FIELD OFFICE | : CALGARY, A.B | DATE OF LOG | : 03/17/96 |
| DATA FROM | : | PROBE | : 9055A, 58 |
| MAG. DECL. | : 23.000 | DEPTH UNITS | : METERS LOG 1 |

| CABLE DEPTH | TRUE DEPTH | NORTH DEV. | EAST DEV. | DISTANCE | AZIMUTH | SANG | SANGB |
|-------------|------------|------------|-----------|----------|---------|------|-------|
| 12.2 | 12.18 | -0.04 | -0.05 | 0.1 | 235.3 | 39.9 | 235.3 |
| 15.6 | 14.79 | -1.27 | -1.84 | 2.2 | 235.3 | 39.7 | 235.9 |
| 20.6 | 18.64 | -3.12 | -4.44 | 5.4 | 234.9 | 39.6 | 237.2 |
| 25.6 | 22.50 | -4.95 | -7.04 | 8.6 | 234.9 | 39.2 | 234.5 |
| 30.6 | 26.38 | -6.79 | -9.59 | 11.8 | 234.7 | 38.8 | 237.6 |
| 35.6 | 30.27 | -8.61 | -12.16 | 14.9 | 234.7 | 38.7 | 234.5 |
| 40.6 | 34.18 | -10.40 | -14.71 | 18.0 | 234.7 | 38.2 | 234.6 |
| 45.6 | 38.11 | -12.18 | -17.24 | 21.1 | 234.8 | 38.1 | 234.4 |
| 50.6 | 42.03 | -13.99 | -19.74 | 24.2 | 234.7 | 38.2 | 234.6 |
| 55.6 | 45.97 | -15.70 | -22.29 | 27.3 | 234.8 | 37.8 | 234.0 |
| 60.6 | 49.94 | -17.46 | -24.78 | 30.3 | 234.8 | 37.2 | 233.6 |
| 65.6 | 53.93 | -19.16 | -27.26 | 33.3 | 234.9 | 36.9 | 234.7 |
| 70.6 | 57.95 | -20.81 | -29.73 | 36.3 | 235.0 | 36.3 | 236.3 |
| 75.6 | 61.99 | -22.44 | -32.19 | 39.2 | 235.1 | 35.9 | 236.9 |
| 80.6 | 66.05 | -24.06 | -34.60 | 42.1 | 235.2 | 35.5 | 238.4 |
| 85.6 | 70.13 | -25.66 | -37.01 | 45.0 | 235.3 | 35.1 | 234.4 |
| 90.6 | 74.23 | -27.21 | -39.40 | 47.9 | 235.4 | 34.6 | 242.0 |
| 95.6 | 78.35 | -28.80 | -41.73 | 50.7 | 235.4 | 34.7 | 237.8 |
| 96.6 | 79.17 | -29.10 | -42.22 | 51.3 | 235.4 | 34.8 | 243.4 |



GAMMA-NEUTRON

COMPANY : PINE VALLEY COAL LTD.
WELL : WPH-96-030
LOCATION/FIELD : WILLOW CREEK PROJECT
COUNTY : PINE PASS
STATE : BRITISH COLUMBIA
SECTION : TOWNSHIP

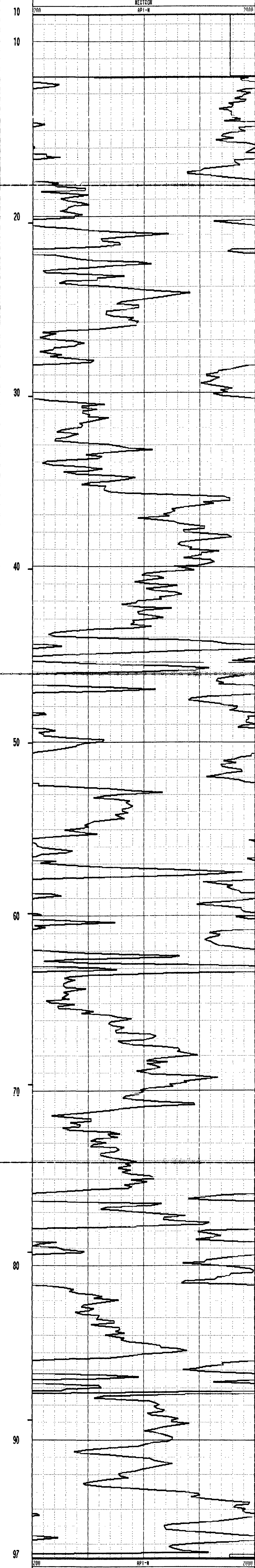
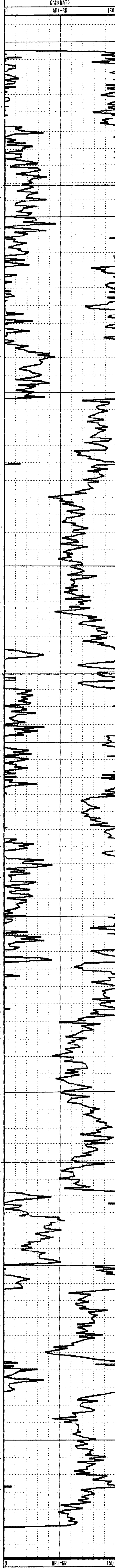
OTHER SERVICES:
9055
9030

DATE : 03/17/96 PERMANENT DATUM : GROUND ELEVATIONS
DEPTH DRILLER : 97 ELEV. PERM. DATUM: GROUND KB :
LOG BOTTOM : 96.90 LOG MEASURED FROM: GL DT :
LOG TOP : 10.60 DRL MEASURED FROM: CL CL :

CASING DRILLER : 4 LOGGING UNIT : 9603
CASING TYPE : STEEL FIELD OFFICE : CALGARY, A.B
CASING THICKNESS: 0.65 RECORDED BY : D.DOONE

BIT SIZE : 14 BOREHOLE FLUID : H2O/ATR FILF : ORIGINAL
MAGNETIC DECL. : 23 RM TYPE : 9055A
MATRIX DENSITY : 2.65 RM TEMPERATURE : LOG : 9
FLUID DENSITY : 1.1 MATRIX DELTA T : PLOT : SMOKY 7
NEUTRON MATRIX : SANDSTONE FLUID DELTA T : THRESH: 10000

REMARKS :
OPEN HOLE
HOLE DEVIATED TO 40 DEG.
ALL SERVICES PROVIDED SUBJECT TO STANDARD TERMS AND CONDITIONS



GAMMA-RES-DENSITY

COMPANY : PINE VALLEY COAL LTD.
 WELL : WRH-96-030
 LOCATION/FIELD : WILLOW CREEK PROJECT
 COUNTY : PINE PASS
 STATE : BRITISH COLUMBIA
 SECTION : TOWNSHIP : RANGE :

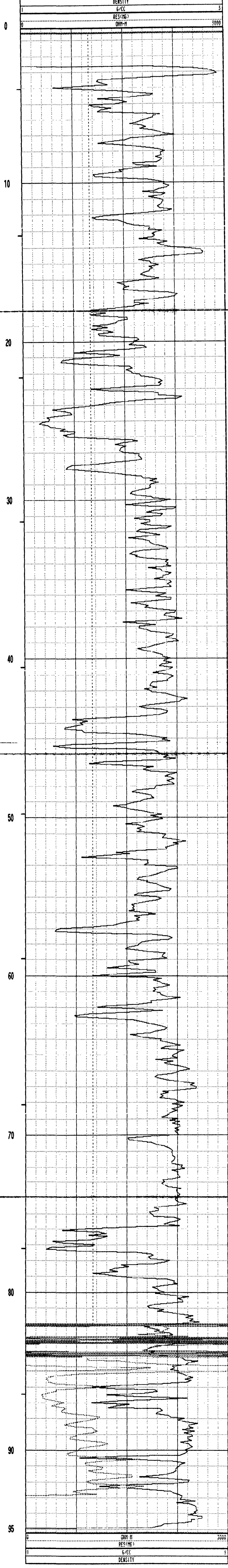
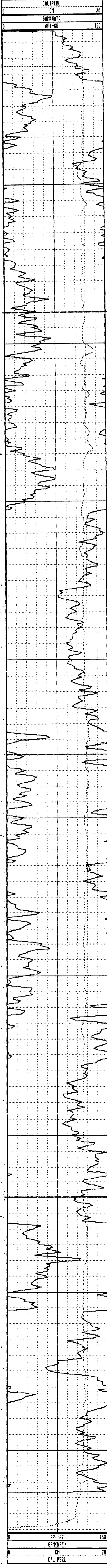
OTHER SERVICES:
 9055
 9030

DATE : 03/17/96 PERMANENT DATUM : GROUND ELEVATIONS
 DEPTH DRILLER : 97 ELEV. PERM. DATUM: GROUND KB :
 LOG BOTTOM : 95.30 LOG MEASURED FROM: GL DF :
 LOG TOP : 0.40 DRL MEASURED FROM: GL GL :

CASING DRILLER : 4 LOGGING UNIT : 9603
 CASING TYPE : STEEL FIELD OFFICE : CALGARY, A.B.
 CASING THICKNESS: 0.65 RECORDED BY : B. BOONE

BIT SIZE : 14 BOREHOLE FLUID : H2O/AIR FILE : ORIGINAL
 MAGNETIC DECL. : 23 RM : TYPE : 9033AA
 MATRIX DENSITY : 2.65 RM TEMPERATURE : LOG : 0
 FLUID DENSITY : 1.1 MATRIX DELTA T : PLOT : SMOKY 3
 NEUTRON MATRIX : SANDSTONE FLUID DELTA T : THRESH: 10000

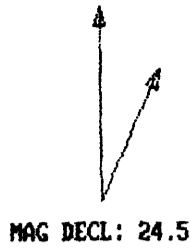
REMARKS :
 OPEN HOLE
 HOLE DEVIATED TO 40 DEG.
 ALL SERVICES PROVIDED SUBJECT TO STANDARD TERMS AND CONDITIONS



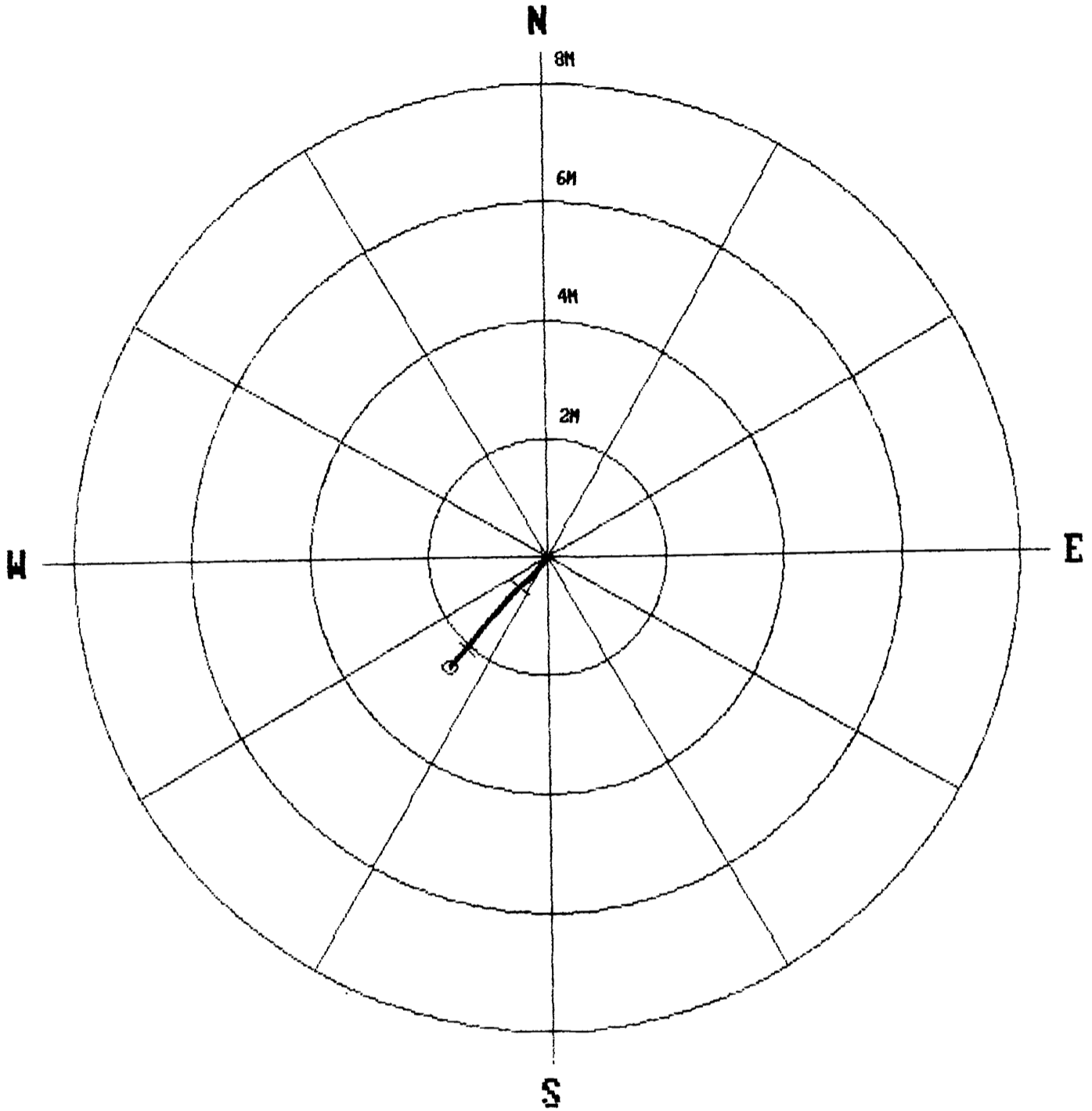
PLAN VIEW

COMPU-LOG DEVIATION

CLIENT: GLOBALTEX
 LOCATION: WILLOW CREEK
 HOLE ID: WRH-94031
 DATE OF LOG: 04/09/94
 PROBE: 9055A 255



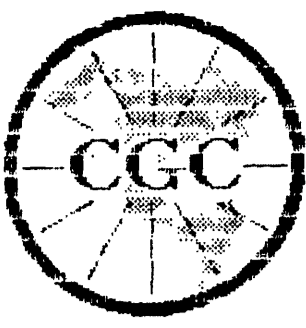
SCALE: 1 M/CM
 TRUE DEPTH: 64.17 M
 AZIMUTH: 222.0
 DISTANCE: 2.5 M
 + = 20 M INCR
 O = BOTTOM OF HOLE



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

| | |
|------------------------|----------------------------|
| CLIENT : GLOBALTEX | HOLE ID. : WRH-94031 |
| FIELD OFFICE : CALGARY | DATE OF LOG : 04/09/94 |
| DATA FROM : | PROBE : 9055A 255 |
| MAG. DECL. : 24.500 | DEPTH UNITS : METERS LOG 4 |

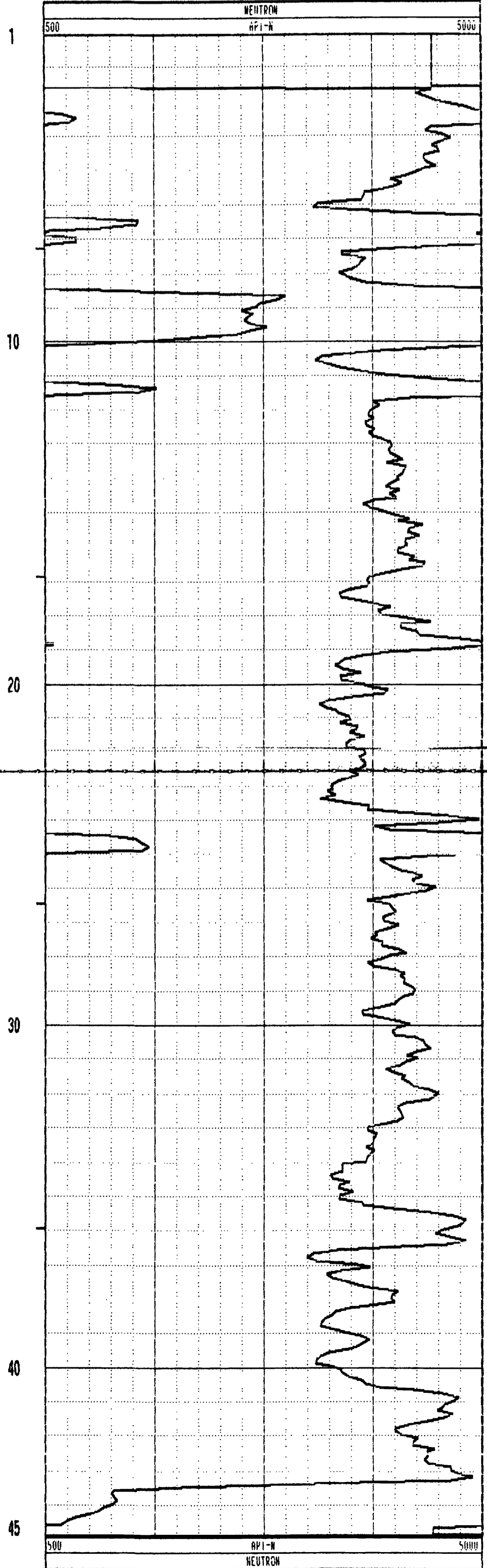
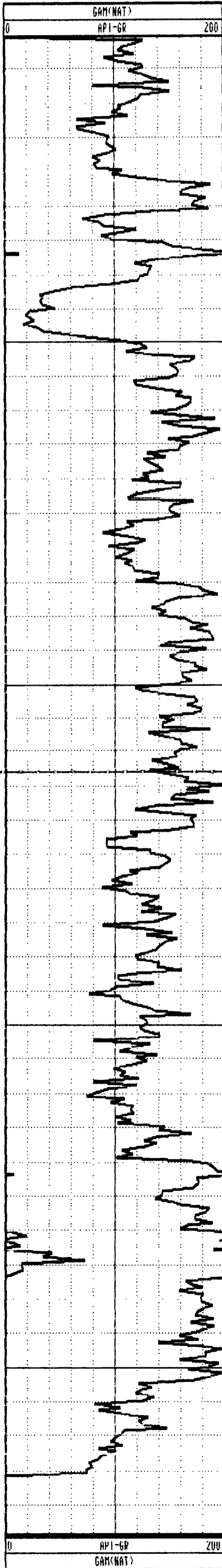
| CABLE DEPTH | TRUE DEPTH | NORTH DEV. | EAST DEV. | DISTANCE | AZIMUTH | SANG | SANGB |
|-------------|------------|------------|-----------|----------|---------|------|-------|
| 2.5 | 2.50 | 0.00 | 0.00 | 0.0 | 0.0 | 0.0 | 0.0 |
| 5.0 | 5.00 | -0.00 | 0.03 | 0.0 | 96.8 | 0.7 | 75.5 |
| 10.0 | 10.00 | 0.02 | 0.08 | 0.1 | 74.5 | 0.2 | 323.3 |
| 15.0 | 15.00 | 0.04 | 0.09 | 0.1 | 65.5 | 0.2 | 255.8 |
| 20.0 | 20.00 | 0.02 | 0.06 | 0.1 | 70.1 | 1.2 | 216.7 |
| 25.0 | 25.00 | -0.08 | -0.04 | 0.1 | 204.9 | 1.7 | 207.8 |
| 30.0 | 29.99 | -0.21 | -0.15 | 0.3 | 216.3 | 2.4 | 227.3 |
| 35.0 | 34.99 | -0.36 | -0.30 | 0.5 | 219.6 | 2.4 | 220.7 |
| 40.0 | 39.98 | -0.50 | -0.46 | 0.7 | 222.2 | 2.8 | 226.8 |
| 45.0 | 44.98 | -0.68 | -0.64 | 0.9 | 223.1 | 3.1 | 225.9 |
| 50.0 | 49.97 | -0.91 | -0.85 | 1.3 | 223.0 | 3.8 | 218.8 |
| 55.0 | 54.95 | -1.19 | -1.09 | 1.6 | 222.6 | 4.5 | 215.7 |
| 60.0 | 59.93 | -1.52 | -1.37 | 2.1 | 222.1 | 5.3 | 217.1 |
| 64.3 | 64.17 | -1.85 | -1.67 | 2.5 | 222.0 | 6.5 | 221.4 |
| 65.0 | 0.00 | 0.00 | 0.00 | 0.0 | 0.0 | 0.0 | 0.0 |



Century GEOPHYSICAL CORP.

GAMMA-NEUTRON

| | | | |
|--|---------------------------|--------------------|---------------------------|
| COMPANY | : PINE VALLEY COAL LTD. | OTHER SERVICES: | |
| WELL | : WPH-96-031 | 9055 | |
| LOCATION/FIELD | : WILLOW CREEK PROJECT | 9030 | |
| COUNTY | : PINE PASS | | |
| STATE | : BRITISH COLUMBIA | | |
| SECTION | : TOWNSHIP | RANGE | : |
| DATE | : 03/18/96 | PERMANENT DATUM | : GROUND ELEVATIONS |
| DEPTH DRILLER | : 45 | ELEV. PERM. DATUM: | GROUND KB |
| LOG BOTTOM | : 45.00 | LOG MEASURED FROM: | GL DT |
| LOG TOP | : 1.20 | DPL MEASURED FROM: | GL CL |
| CASING DRILLER | : - | LOGGING UNIT | : 9603 |
| CASING TYPE | : | FIELD OFFICE | : CALGARY, A.B |
| CASING THICKNESS: | 0.65 | RECORDED BY | : B. DOONE |
| BIT SIZE | : 14 | BOREHOLE FLUID | : H2O/AIR FILE : ORIGINAL |
| MAGNETIC DECL. | : 23 | RM | : TYPE : 9055A |
| MATRIX DENSITY | : 2.65 | RM TEMPERATURE | : LOG : 5 |
| FLUID DENSITY | : 1.1 | MATRIX DELTA T | : PLOT : SMOKY 7 |
| NEUTRON MATRIX | : SANDSTONE FLUID DELTA T | | : THRESH: 10000 |
| REMARKS | : | | |
| OPEN HOLE | | | |
| HOLE DEVIATED TO 60 DEG. | | | |
| ALL SERVICES PROVIDED SUBJECT TO STANDARD TERMS AND CONDITIONS | | | |



GAMMA-RES-DENSITY

COMPANY : PINE VALLEY COAL LTD.
 WELL : WRH-96-031
 LOCATION/FIELD : WILLOW CREEK PROJECT
 COUNTY : PINE PASS
 STATE : BRITISH COLUMBIA
 SECTION : TOWNSHIP : RANGE :

OTHER SERVICES:
 9055
 9030

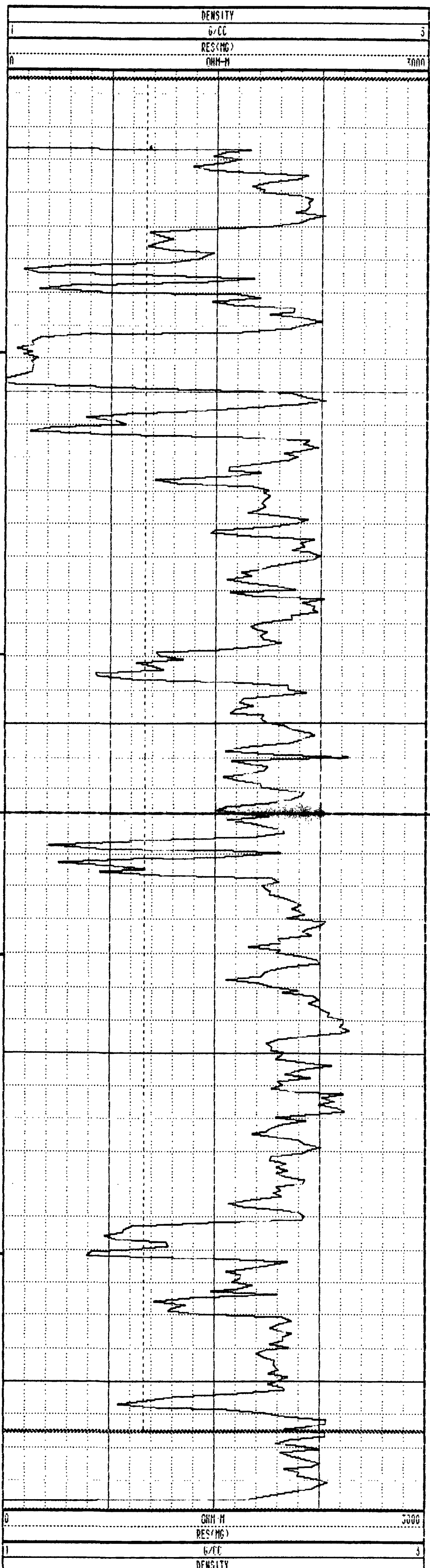
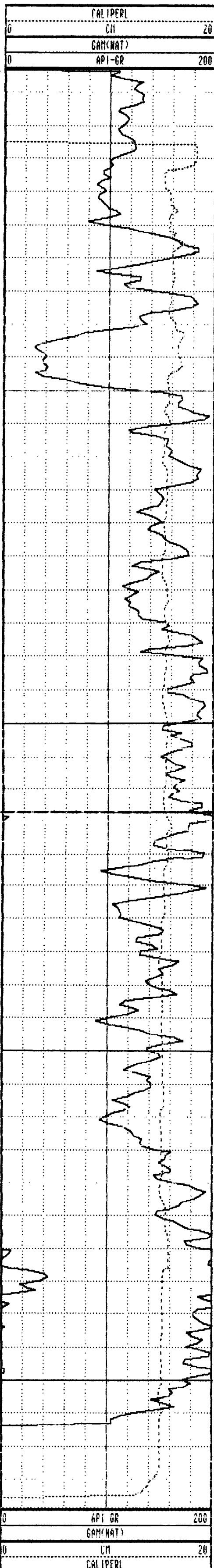
DATE : 03/18/96 PERMANENT DATUM : GROUND ELEVATIONS
 DEPTH DRILLER : 45 ELEV. PERM. DATUM: GROUND KB :
 LOG BOTTOM : 44.00 LOG MEASURED FROM: GL DF :
 LOG TOP : 0.40 DRL MEASURED FROM: GL GL :

CASING DRILLER : - LOGGING UNIT : 9603
 CASING TYPE : FIELD OFFICE : CALGARY, A.B
 CASING THICKNESS: 0.65 RECORDED BY : B. BOONE

BIT SIZE : 14 BOREHOLE FLUID : H2O/AIR FILE : ORIGINAL
 MAGNETIC DECL. : 23 RM : TYPE : 9033AA
 MATRIX DENSITY : 2.65 RM TEMPERATURE : LOG : 7
 FLUID DENSITY : 1.1 MATRIX DELTA T : PLOT : SMOKY 3
 NEUTRON MATRIX : SANDSTONE FLUID DELTA T : THRESH: 10000

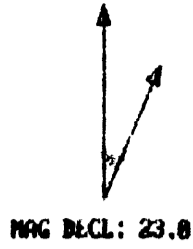
REMARKS :
 OPEN HOLE
 HOLE DEVIATED TO 60 DEG.

ALL SERVICES PROVIDED SUBJECT TO STANDARD TERMS AND CONDITIONS

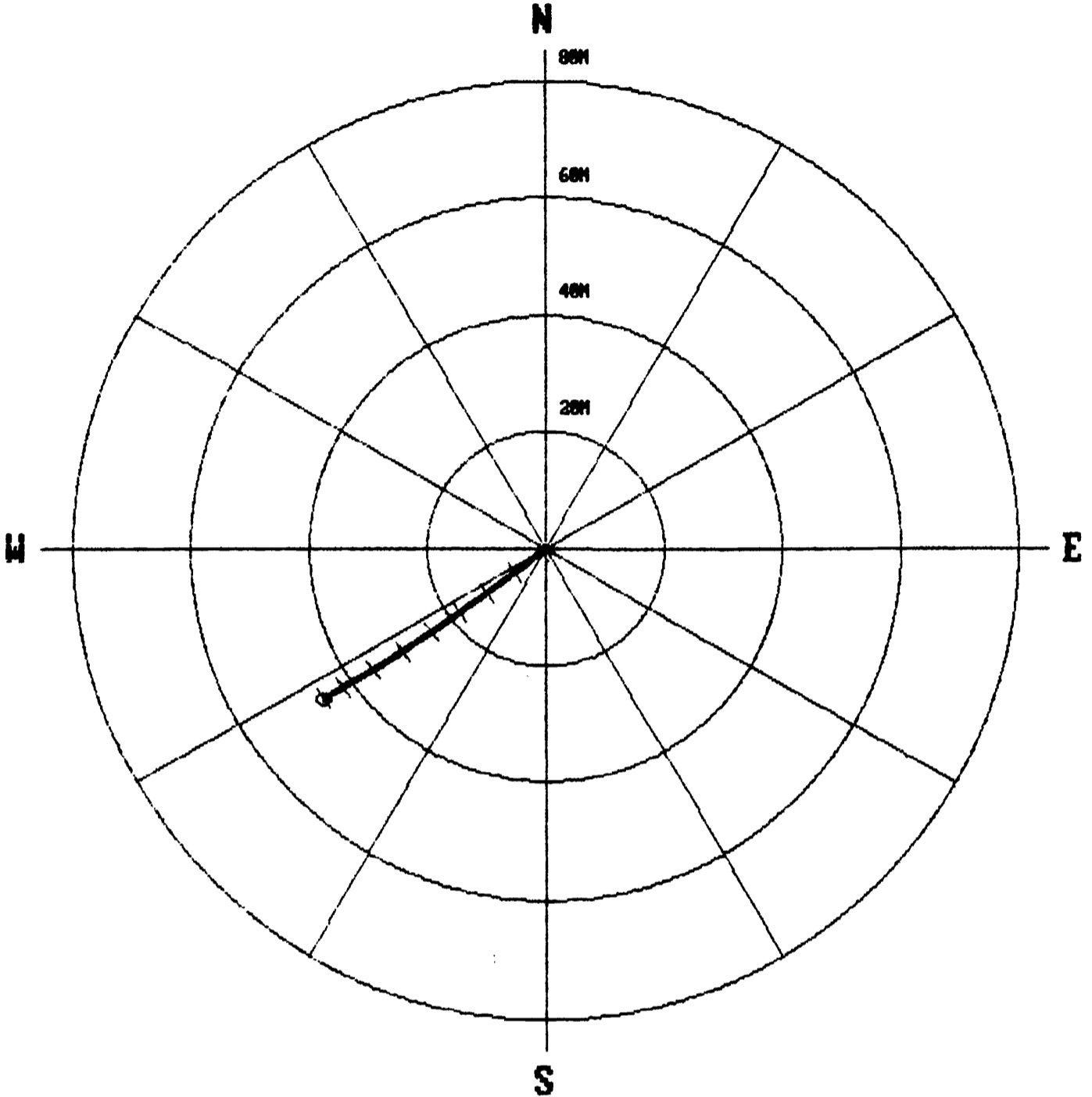


PLAN VIEW COMPU-LOG DEVIATION

CLIENT: PINE VALLEY COAL LTD.
 LOCATION: WILLOW CREEK PROJECT
 HOLE ID: WRH-96-032
 DATE OF LOG: 03/18/96
 PROBE: 9055A 58



SCALE: 10 M/CM
 TRUE DEPTH: 86.32 M
 AZIMUTH: 235.9
 DISTANCE: 45.2 M
 + = 10 M INCR
 O = BOTTOM OF HOLE



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

| | |
|------------------------------|----------------------------|
| CLIENT : PINE VALLEY COAL LT | HOLE ID. : WRH-96-032 |
| FIELD OFFICE : CALGARY, A.B | DATE OF LOG : 03/18/96 |
| DATA FROM : | PROBE : 9055A , 58 |
| MAG. DECL. : 23.000 | DEPTH UNITS : METERS LOG 2 |

| CABLE DEPTH | TRUE DEPTH | NORTH DEV. | EAST DEV. | DISTANCE | AZIMUTH | SANG | SANGB |
|-------------|------------|------------|-----------|----------|---------|------|-------|
| 8.9 | 8.89 | -0.03 | -0.04 | 0.1 | 234.0 | 31.1 | 234.0 |
| 13.0 | 12.40 | -1.31 | -1.71 | 2.2 | 232.6 | 30.8 | 231.7 |
| 18.0 | 16.71 | -2.84 | -3.60 | 4.6 | 231.7 | 26.7 | 223.8 |
| 23.0 | 21.01 | -4.37 | -5.63 | 7.1 | 232.2 | 30.4 | 232.9 |
| 28.0 | 25.33 | -5.89 | -7.63 | 9.6 | 232.3 | 30.4 | 235.5 |
| 33.0 | 29.64 | -7.39 | -9.66 | 12.2 | 232.6 | 30.1 | 226.3 |
| 38.0 | 33.96 | -8.85 | -11.71 | 14.7 | 232.9 | 30.3 | 234.4 |
| 43.0 | 38.29 | -10.32 | -13.75 | 17.2 | 233.1 | 29.7 | 233.5 |
| 48.0 | 42.62 | -11.75 | -15.79 | 19.7 | 233.4 | 29.9 | 236.6 |
| 53.0 | 46.96 | -13.16 | -17.83 | 22.2 | 233.6 | 29.9 | 235.6 |
| 58.0 | 51.29 | -14.56 | -19.90 | 24.7 | 233.8 | 30.0 | 236.0 |
| 63.0 | 55.61 | -15.94 | -22.01 | 27.2 | 234.1 | 30.2 | 237.6 |
| 68.0 | 59.92 | -17.34 | -24.11 | 29.7 | 234.3 | 30.6 | 237.2 |
| 73.0 | 64.23 | -18.70 | -26.26 | 32.2 | 234.5 | 30.5 | 237.6 |
| 78.0 | 68.53 | -20.03 | -28.43 | 34.8 | 234.8 | 30.8 | 237.7 |
| 83.0 | 72.84 | -21.36 | -30.60 | 37.3 | 235.1 | 30.4 | 238.7 |
| 88.0 | 77.14 | -22.61 | -32.80 | 39.8 | 235.4 | 31.0 | 244.0 |
| 93.0 | 81.43 | -23.91 | -35.00 | 42.4 | 235.7 | 31.1 | 242.0 |
| 98.0 | 85.72 | -25.14 | -37.19 | 44.9 | 235.9 | 31.2 | 230.2 |
| 98.7 | 86.32 | -25.34 | -37.48 | 45.2 | 235.9 | 31.3 | 237.1 |



Century GEOPHYSICAL CORP.

GAMMA-NEUTRON

COMPANY : PINE VALLEY COAL LTD.
 WELL : WRH-96-032
 LOCATION/FIELD : WILLOW CREEK PROJECT
 COUNTY : PINE PASS
 STATE : BRITISH COLUMBIA
 SECTION : TOWNSHIP : RANGE :

OTHER SERVICES:
 9055
 9030

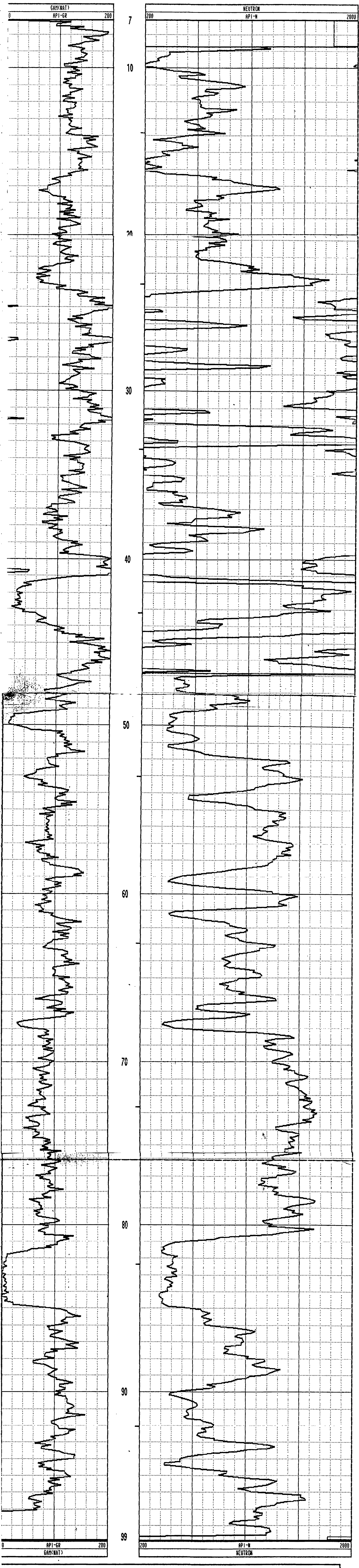
DATE : 03/18/96 PERMANENT DATUM : GROUND ELEVATIONS
 DEPTH DRILLER : 99 ELEV. PERM. DATUM: GROUND KB :
 LOG BOTTOM : 99.00 LOG MEASURED FROM: GL DF :
 LOG TOP : 7.30 DRL MEASURED FROM: GL GL :

ASING DRILLER : 4 LOGGING UNIT : 9603
 ASING TYPE : STEEL FIELD OFFICE : CALGARY, A.B
 ASING THICKNESS: 0.65 RECORDED BY : B. BOONE

BIT SIZE : 14 BOREHOLE FLUID : H2O/AIR FILE : ORIGINAL
 MAGNETIC DECL. : 23 RM TYPE : 9055A
 MATRIX DENSITY : 2.65 RM TEMPERATURE : LOG : 0
 FLUID DENSITY : 1.1 MATRIX DELTA T : PLOT : SMOKY 7
 NEUTRON MATRIX : SANDSTONE FLUID DELTA T : THRESH: 10000

REMARKS :
 OPEN HOLE
 HOLE DEVIATED TO 60 DEG.

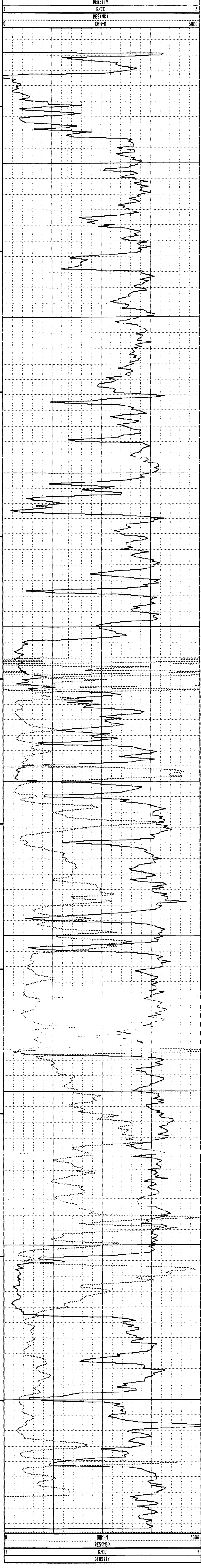
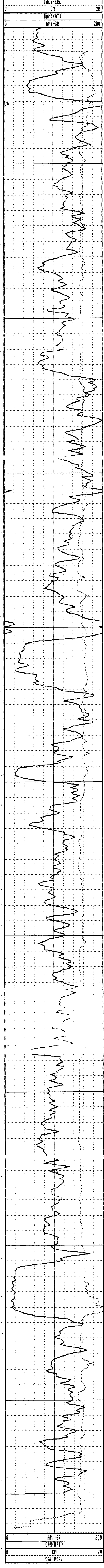
ALL SERVICES PROVIDED SUBJECT TO STANDARD TERMS AND CONDITIONS



GAMMA-RES-DENSITY

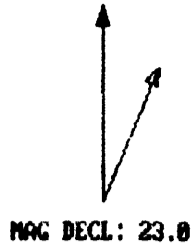
| | | |
|------------------|-------------------------|---------------------------------|
| COMPANY | : PINE VALLEY COAL LTD. | OTHER SERVICES:
9055
9030 |
| WELL | : WRH-96-032 | |
| LOCATION/FIELD | : WILLOW CREEK PROJECT | |
| COUNTY | : PINE PASS | |
| STATE | : BRITISH COLUMBIA | |
| SECTION | : TOWNSHIP | : RANGE |
| DATE | : 03/18/96 | PERMANENT DATUM : GROUND |
| DEPTH DRILLER | : 99 | ELEV. PERM. DATUM: GROUND |
| LOG BOTTOM | : 98.70 | LOG MEASURED FROM: GL |
| LOG TOP | : 1.40 | DRL MEASURED FROM: GL |
| CASING DRILLER | : 4 | LOGGING UNIT : 9603 |
| CASING TYPE | : STEEL | FIELD OFFICE : CALGARY, A.B |
| CASING THICKNESS | : 0.65 | RECORDED BY : B. BOONE |
| BIT SIZE | : 14 | BOREHOLE FLUID : H2O/AIR |
| MAGNETIC DECL. | : 23 | RM : |
| MATRIX DENSITY | : 2.65 | RM TEMPERATURE : |
| FLUID DENSITY | : 1.1 | MATRIX DELTA T : |
| NEUTRON MATRIX | : SANDSTONE | FLUID DELTA T : |
| REMARKS | : | FILE : ORIGINAL |
| OPEN HOLE | : | TYPE : 9033AA |
| | : | LOG : 1 |
| | : | PLOT : SMOKE 3 |
| | : | THRESH: 10000 |

HOLE DEVIATED TO 60 DEG.
ALL SERVICES PROVIDED SUBJECT TO STANDARD TERMS AND CONDITIONS

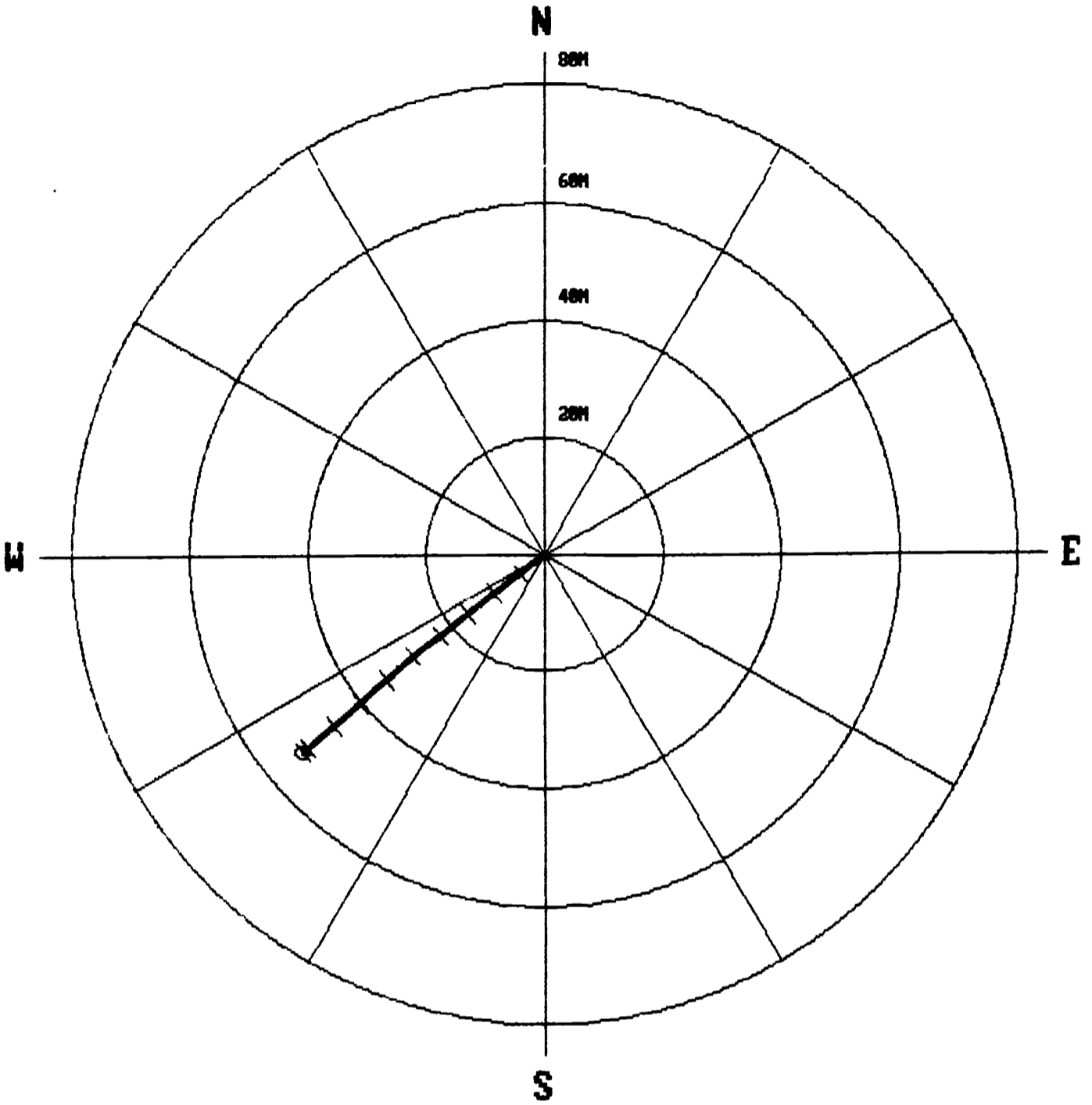


PLAN VIEW COMPU-LOG DEVIATION

CLIENT: PINE VALLEY COAL LTD.
 LOCATION: WILLOW CREEK PROJECT
 HOLE ID: WRH-96-033
 DATE OF LOG: 03/19/96
 PROBE: 9055A 58



SCALE: 10 M/CM
 TRUE DEPTH: 102.10 M
 AZIMUTH: 230.6
 DISTANCE: 52.9 M
 + = 10 M INCR
 O = BOTTOM OF HOLE



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

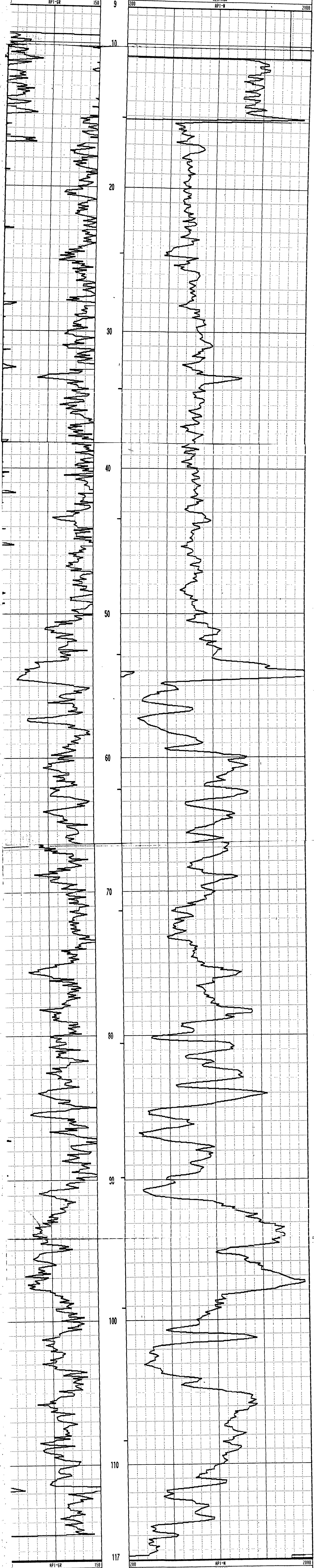
| | | | |
|--------------|-----------------------|-------------|----------------|
| CLIENT | : PINE VALLEY COAL LT | HOLE ID. | : WRH-96-033 |
| FIELD OFFICE | : CALGARY, A.B | DATE OF LOG | : 03/19/96 |
| DATA FROM | : | PROBE | : 9055A , 58 |
| MAG. DECL. | : 23.000 | DEPTH UNITS | : METERS LOG 6 |

| CABLE DEPTH | TRUE DEPTH | NORTH DEV. | EAST DEV. | DISTANCE | AZIMUTH | SANG | SANGB |
|-------------|------------|------------|-----------|----------|---------|------|-------|
| 11.1 | 11.09 | -0.03 | -0.04 | 0.1 | 233.9 | 30.1 | 233.9 |
| 15.0 | 14.46 | -1.20 | -1.60 | 2.0 | 233.3 | 29.9 | 232.7 |
| 20.0 | 18.81 | -2.72 | -3.56 | 4.5 | 232.7 | 29.5 | 233.1 |
| 25.0 | 23.16 | -4.22 | -5.49 | 6.9 | 232.5 | 28.5 | 230.1 |
| 30.0 | 27.52 | -5.71 | -7.44 | 9.4 | 232.5 | 29.5 | 232.1 |
| 35.0 | 31.87 | -7.22 | -9.38 | 11.8 | 232.4 | 29.5 | 231.7 |
| 40.0 | 36.22 | -8.75 | -11.32 | 14.3 | 232.3 | 29.8 | 231.0 |
| 45.0 | 40.56 | -10.32 | -13.24 | 16.8 | 232.1 | 29.6 | 231.9 |
| 50.0 | 44.85 | -11.91 | -15.23 | 19.3 | 232.0 | 31.2 | 231.7 |
| 55.0 | 49.15 | -13.54 | -17.21 | 21.9 | 231.8 | 30.3 | 226.6 |
| 60.0 | 53.45 | -14.92 | -19.15 | 24.3 | 232.1 | 31.0 | 233.3 |
| 65.0 | 57.72 | -16.45 | -21.14 | 26.8 | 232.1 | 31.2 | 226.8 |
| 70.0 | 61.99 | -18.15 | -23.09 | 29.4 | 231.8 | 31.3 | 229.5 |
| 75.0 | 66.27 | -19.85 | -25.05 | 32.0 | 231.6 | 31.3 | 230.3 |
| 80.0 | 70.56 | -21.54 | -26.99 | 34.5 | 231.4 | 30.9 | 229.2 |
| 85.0 | 74.85 | -23.22 | -28.92 | 37.1 | 231.2 | 30.7 | 233.1 |
| 90.0 | 79.15 | -24.92 | -30.82 | 39.6 | 231.0 | 30.4 | 225.2 |
| 95.0 | 83.47 | -26.60 | -32.69 | 42.1 | 230.9 | 30.0 | 231.9 |
| 100.0 | 87.79 | -28.25 | -34.58 | 44.7 | 230.8 | 30.2 | 227.2 |
| 105.0 | 92.13 | -29.84 | -36.49 | 47.1 | 230.7 | 30.2 | 230.6 |
| 110.0 | 96.46 | -31.45 | -38.39 | 49.6 | 230.7 | 30.7 | 228.5 |
| 115.0 | 100.80 | -33.09 | -40.26 | 52.1 | 230.6 | 29.8 | 227.3 |
| 116.5 | 102.10 | -33.55 | -40.85 | 52.9 | 230.6 | 29.9 | 230.7 |



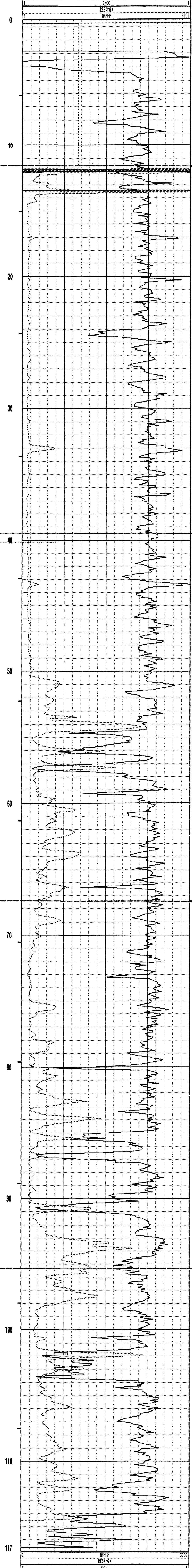
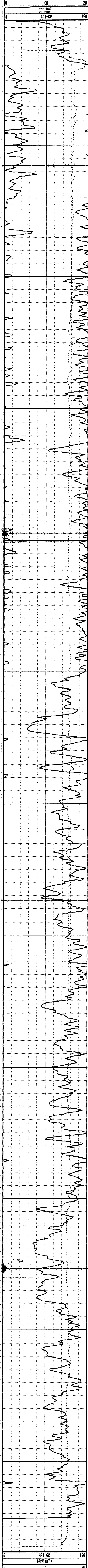
GAMMA-NEUTRON

COMPANY : PINE VALLEY COAL LTD. OTHER SERVICES: 9055 9030
 WELL : WRH-96-033
 LOCATION/FIELD : WILLOW CREEK PROJECT
 COUNTY : PINE PASS
 STATE : BRITISH COLUMBIA
 SECTION : TOWNSHIP : RANGE :
 DATE : 03/19/96 PERMANENT DATUM : GROUND ELEVATIONS
 DEPTH DRILLER : 120 ELEV. PERM. DATUM: GROUND KB :
 LOG BOTTOM : 116.80 LOG MEASURED FROM: GL DF :
 LOG TOP : 9.50 DRL MEASURED FROM: GL GL :
 CASING DRILLER : 4 LOGGING UNIT : 9603
 CASING TYPE : STEEL FIELD OFFICE : CALGARY, A.B
 CASING THICKNESS: 0.65 RECORDED BY : B. BOONE
 BIT SIZE : 14 BOREHOLE FLUID : H2O/AIR FILE : ORIGINAL
 MAGNETIC DECL. : 23 RM TYPE : 9055A
 MATRIX DENSITY : 2.65 RM TEMPERATURE : LOG : 3
 FLUID DENSITY : 1.1 MATRIX DELTA T : PLOT : SMOKY 7
 NEUTRON MATRIX : SANDSTONE FLUID DELTA T : THRESH: 10000
 REMARKS :
 OPEN HOLE
 HOLE DEVIATED TO 60 DEG.
 ALL SERVICES PROVIDED SUBJECT TO STANDARD TERMS AND CONDITIONS



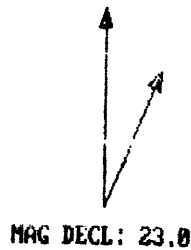
GAMMA-RES-DENSITY

| | |
|--|---|
| <p> COMPANY : PINE VALLEY COAL LTD.
 WELL : WRH-96-033
 LOCATION/FIELD : WILLOW CREEK PROJECT
 COUNTY : PINE PASS
 STATE : BRITISH COLUMBIA
 SECTION : TOWNSHIP : RANGE : </p> <p> DATE : 03/19/96
 DEPTH DRILLER : 120
 LOG BOTTOM : 117.00
 LOG TOP : 0.60 </p> <p> CASING DRILLER : 4
 CASING TYPE : STEEL
 CASING THICKNESS : 0.65 </p> <p> BIT SIZE : 14
 MAGNETIC DECL. : 23
 MATRIX DENSITY : 2.65
 FLUID DENSITY : 1.1
 NEUTRON MATRIX : SANDSTONE
 REMARKS :
 OPEN HOLE
 HOLE DEVIATED TO 60 DEG.
 ALL SERVICES PROVIDED SUBJECT TO STANDARD TERMS AND CONDITIONS </p> | <p> OTHER SERVICES:
 9055
 9030 </p> <p> PERMANENT DATUM : GROUND
 ELEVATIONS
 ELEV. PERM. DATUM : GROUND
 KB :
 LOG MEASURED FROM : GL
 DF :
 DRL MEASURED FROM : GL
 CL : </p> <p> LOGGING UNIT : 9603
 FIELD OFFICE : CALGARY, A.B.
 RECORDED BY : B. BOONE </p> <p> BOREHOLE FLUID : H2O/AIR
 FILE : ORIGINAL
 RM :
 TYPE : 9033AA
 RM TEMPERATURE :
 LOG : 5
 MATRIX DELTA T :
 PLOT : SHOKY 3
 FLUID DELTA T :
 THRESH : 10000 </p> |
|--|---|

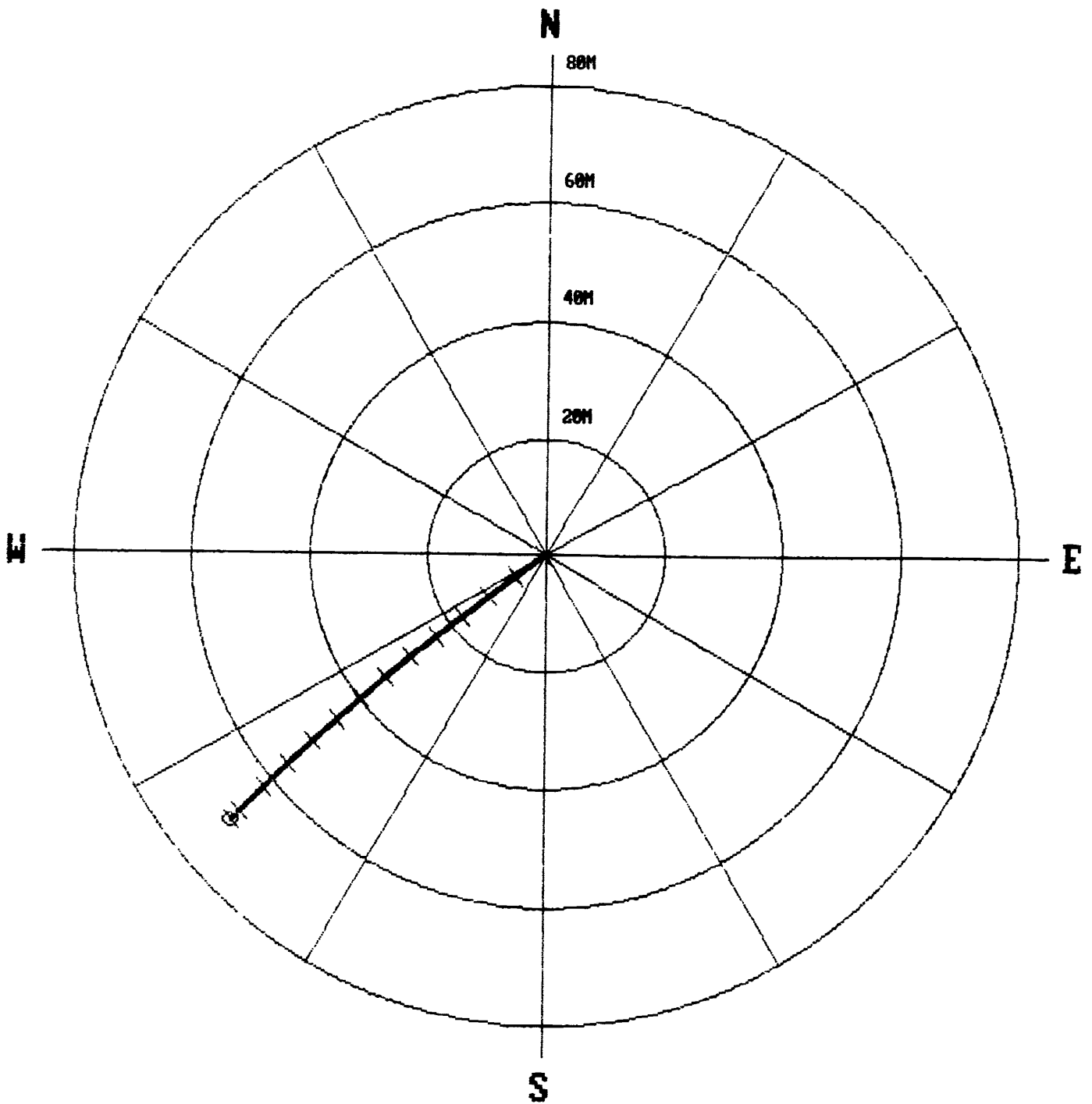


PLAN VIEW COMPU-LOG DEVIATION

CLIENT: PINE VALLEY COAL LTD.
 LOCATION: WILLOW CREEK PROJECT
 HOLE ID: WRH-96-034
 DATE OF LOG: 03/24/96
 PROBE: 9055A 58



SCALE: 10 M/CM
 TRUE DEPTH: 133.44 M
 AZIMUTH: 229.5
 DISTANCE: 69.6 M
 + = 10 M INCR
 O = BOTTOM OF HOLE



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

CLIENT : PINE VALLEY COAL LT HOLE ID. : WRH-96-034
 FIELD OFFICE : CALGARY, A.B DATE OF LOG : 03/24/96
 DATA FROM : PROBE : 9055A , 58
 MAG. DECL. : 23.000 DEPTH UNITS : METERS LOG 2

| LOGGED DEPTH | TRUE DEPTH | NORTH DEV. | EAST DEV. | DISTANCE | AZIMUTH | SANG | SANGB |
|--------------|------------|------------|-----------|----------|---------|------|-------|
| 7.4 | 7.39 | -0.03 | -0.04 | 0.1 | 237.9 | 30.9 | 237.9 |
| 13.0 | 12.48 | -1.07 | -1.55 | 1.9 | 235.3 | 30.6 | 234.4 |
| 18.0 | 16.60 | -2.58 | -3.58 | 4.4 | 234.3 | 30.0 | 234.1 |
| 23.0 | 21.13 | -4.09 | -5.57 | 6.9 | 233.7 | 29.8 | 232.6 |
| 28.0 | 25.47 | -5.60 | -7.54 | 9.4 | 233.4 | 29.7 | 233.7 |
| 33.0 | 29.81 | -7.09 | -9.52 | 11.9 | 233.3 | 29.6 | 232.6 |
| 38.0 | 34.17 | -8.59 | -11.45 | 14.3 | 233.1 | 29.7 | 233.7 |
| 43.0 | 38.53 | -10.07 | -13.40 | 16.8 | 233.1 | 29.2 | 232.5 |
| 48.0 | 42.89 | -11.55 | -15.34 | 19.2 | 233.0 | 29.3 | 233.6 |
| 53.0 | 47.27 | -13.02 | -17.26 | 21.6 | 233.0 | 28.8 | 234.1 |
| 58.0 | 51.65 | -14.49 | -19.16 | 24.0 | 232.9 | 28.8 | 230.9 |
| 63.0 | 56.04 | -15.98 | -21.04 | 26.4 | 232.8 | 28.7 | 229.7 |
| 68.0 | 60.42 | -17.48 | -22.93 | 28.8 | 232.7 | 28.5 | 232.8 |
| 73.0 | 64.80 | -19.02 | -24.78 | 31.2 | 232.5 | 28.9 | 229.2 |
| 78.0 | 69.18 | -20.58 | -26.61 | 33.6 | 232.3 | 29.3 | 231.2 |
| 83.0 | 73.56 | -22.15 | -28.45 | 36.1 | 232.1 | 28.8 | 229.3 |
| 88.0 | 77.95 | -23.71 | -30.26 | 38.4 | 231.9 | 28.6 | 229.0 |
| 93.0 | 82.33 | -25.30 | -32.06 | 40.8 | 231.7 | 28.7 | 227.2 |
| 98.0 | 86.72 | -26.91 | -33.84 | 43.2 | 231.5 | 28.6 | 227.2 |
| 103.0 | 91.11 | -28.52 | -35.60 | 45.6 | 231.3 | 28.7 | 225.6 |
| 108.0 | 95.49 | -30.14 | -37.39 | 48.0 | 231.1 | 29.3 | 219.8 |
| 113.0 | 99.88 | -31.79 | -39.20 | 50.5 | 231.0 | 29.5 | 232.6 |
| 118.0 | 104.21 | -33.45 | -40.98 | 52.9 | 230.8 | 29.0 | 226.9 |
| 123.0 | 108.57 | -35.12 | -42.77 | 55.3 | 230.6 | 29.3 | 226.6 |
| 128.0 | 112.93 | -36.82 | -44.52 | 57.8 | 230.4 | 29.3 | 227.7 |
| 133.0 | 117.27 | -38.57 | -46.28 | 60.2 | 230.2 | 29.5 | 230.0 |
| 138.0 | 121.61 | -40.32 | -48.05 | 62.7 | 230.0 | 29.9 | 226.8 |
| 143.0 | 125.93 | -42.09 | -49.84 | 65.2 | 229.8 | 30.5 | 227.2 |
| 148.0 | 130.25 | -43.89 | -51.60 | 67.7 | 229.6 | 30.2 | 223.3 |
| 151.7 | 133.44 | -45.20 | -52.91 | 69.6 | 229.5 | 30.7 | 224.0 |



GAMMA-NEUTRON

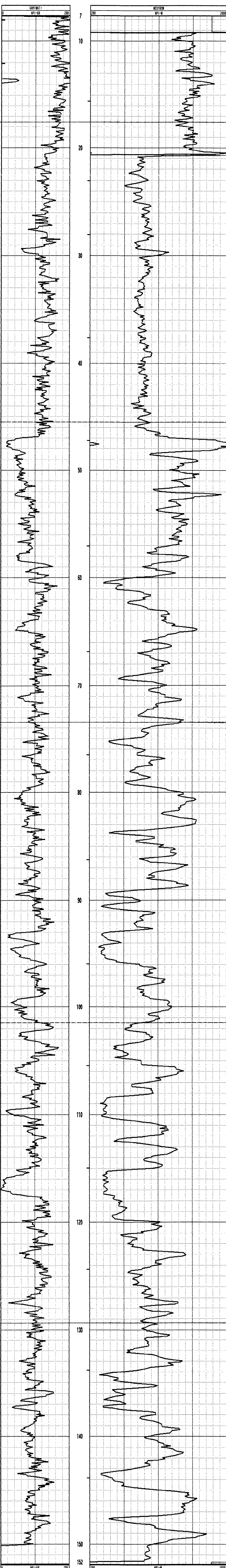
COMPANY : PINE VALLEY COAL LTD. OTHER SERVICES: 9055 9030
 WELL : MRH-96-034
 LOCATION/FIELD : WILLOW CREEK PROJECT
 COUNTY : PINE PASS
 STATE : BRITISH COLUMBIA
 SECTION : TOWNSHIP : RANGE :

DATE : 03/24/96 PERMANENT DATUM : GROUND ELEVATIONS
 DEPTH DRILLER : 152 ELEV. PERM. DATUM: GROUND KB :
 LOG BOTTOM : 152.00 LOG MEASURED FROM: GL DT :
 LOG TOP : 7.80 DRL MEASURED FROM: GL GL :

CASING DRILLER : 4 LOGGING UNIT : 9603
 CASING TYPE : STEEL FIELD OFFICE : CALGARY, A.B
 CASING THICKNESS: 0.65 RECORDED BY : B.DOONE

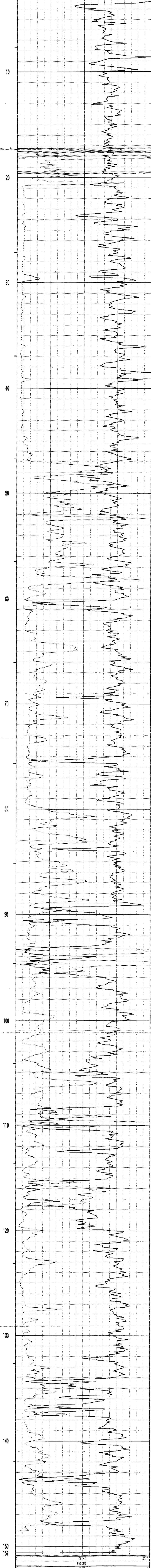
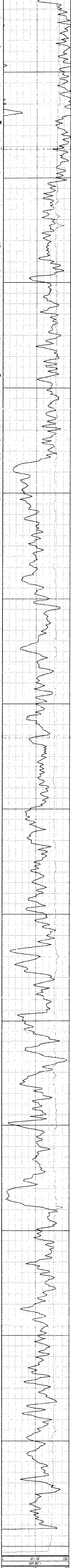
BIT SIZE : 14 BOREHOLE FLUID : H2O/AIR FILE : ORIGINAL
 MAGNETIC DECL. : 23 RM : TYPE : 9055A
 MATRIX DENSITY : 2.65 RM TEMPERATURE : LOG : 0
 FLUID DENSITY : 1.1 MATRIX DELTA T : PLOT : SMOKY 7
 NEUTRON MATRIX : SANDSTONE FLUID DELTA T : THRESH: 10000
 REMARKS :

OPEN HOLE
 HOLE DEVIATED TO 60 DEG
 ALL SERVICES PROVIDED SUBJECT TO STANDARD TERMS AND CONDITIONS



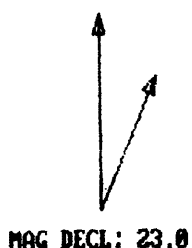
GAMMA-RES-DENSITY

| | | | |
|--|-------------------------|-------------------|----------------|
| COMPANY | : PINE VALLEY COAL LTD. | OTHER SERVICES: | |
| WELL | : WPH-96-034 | 9055 | |
| LOCATION/FIELD | : WILLOW CREEK PROJECT | 9030 | |
| COUNTY | : PINE PASS | | |
| STATE | : BRITISH COLUMBIA | | |
| SECTION | : TOWNSHIP | RANGE | : |
| DATE | : 03/24/96 | PERMANENT DATUM | : GROUND |
| DEPTH DRILLER | : 152 | ELEV. PERM. DATUM | : GROUND |
| LOG BOTTOM | : 151.00 | LOG MEASURED FROM | : CL |
| LOG TOP | : 0.60 | DRL MEASURED FROM | : CL |
| CASING DRILLER | : 4 | LOGGING UNIT | : 9603 |
| CASING TYPE | : STEEL | FIELD OFFICE | : CALGARY, A.B |
| CASING THICKNESS | : 0.65 | RECORDED BY | : B. BOONE |
| BIT SIZE | : 14 | BOREHOLE FLUID | : H2O/AIR |
| MAGNETIC DECL. | : 23 | RM | : |
| MATRIX DENSITY | : 2.65 | RM TEMPERATURE | : |
| FLUID DENSITY | : 1.1 | MATRIX DELTA T | : |
| NEUTRON MATRIX | : SANDSTONE | FLUID DELTA T | : |
| REMARKS | : | | |
| OPEN HOLE | : | | |
| HOLE DEVIATED TO 60 DEG | : | | |
| ALL SERVICES PROVIDED SUBJECT TO STANDARD TERMS AND CONDITIONS | | | |

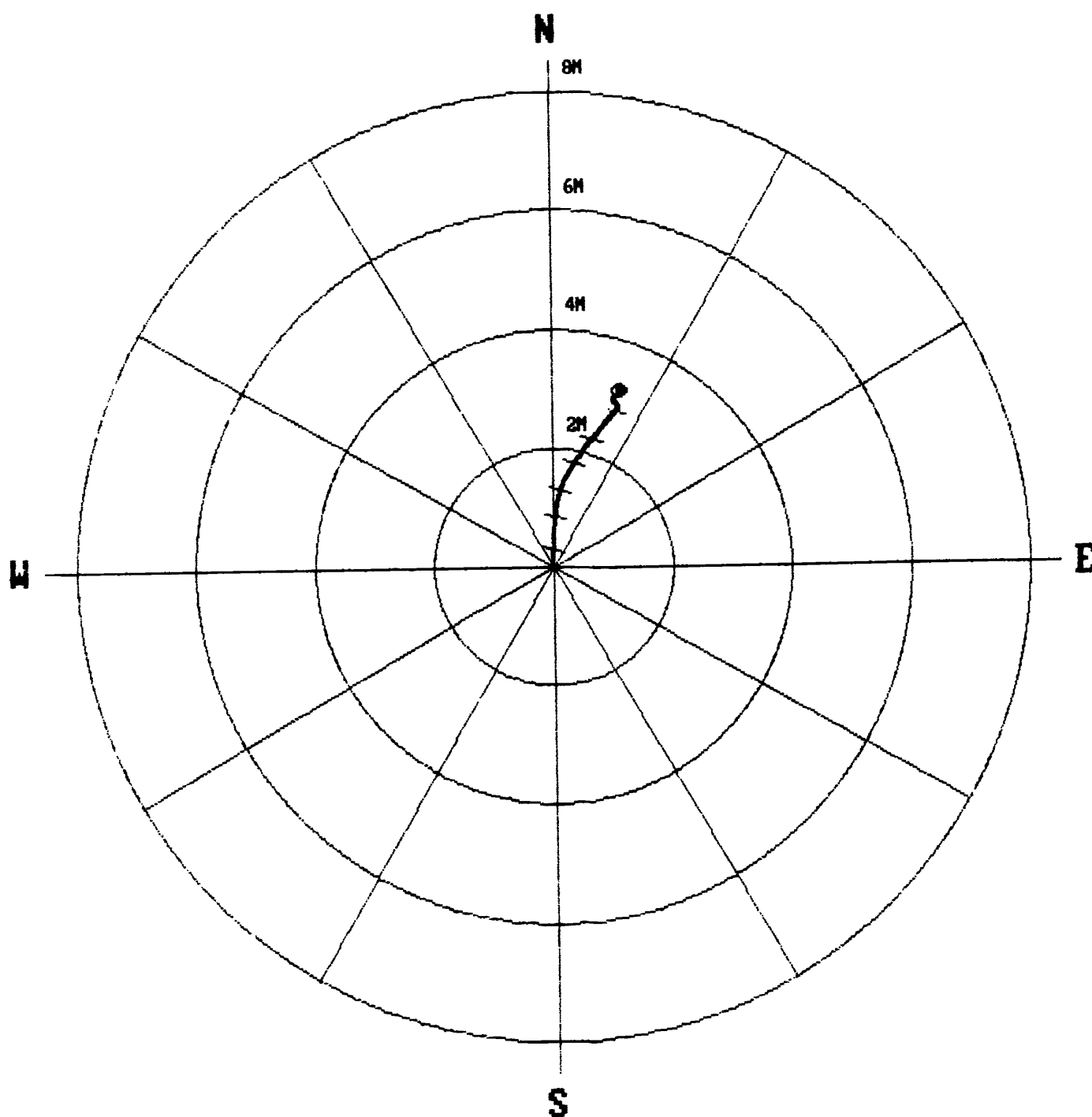


PLAN VIEW COMPU-LOG DEVIATION

CLIENT PINE VALLEY COAL LTD.
 LOCATION: WILLOW CREEK PROJECT
 HOLE ID: WRH-96-035
 DATE OF LOG: 03/25/96
 PROBE 9055A 58



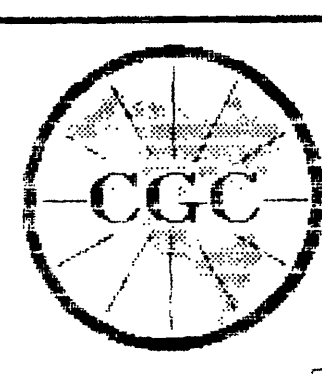
SCALE: 1 M/CM
 TRUE DEPTH: 132.84 M
 AZIMUTH: 20.8
 DISTANCE: 3.2 M
 + = 20 M INCR
 O = BOTTOM OF HOLE



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

| | | | |
|--------------|-----------------------|-------------|----------------|
| CLIENT | : PINE VALLEY COAL LT | HOLE ID. | : WRH-96-035 |
| FIELD OFFICE | : CALGARY, A.B | DATE OF LOG | : 03/25/96 |
| DATA FROM | : | PROBE | : 9055A 58 |
| MAG. DECL. | : 23.000 | DEPTH UNITS | : METERS LOG 1 |

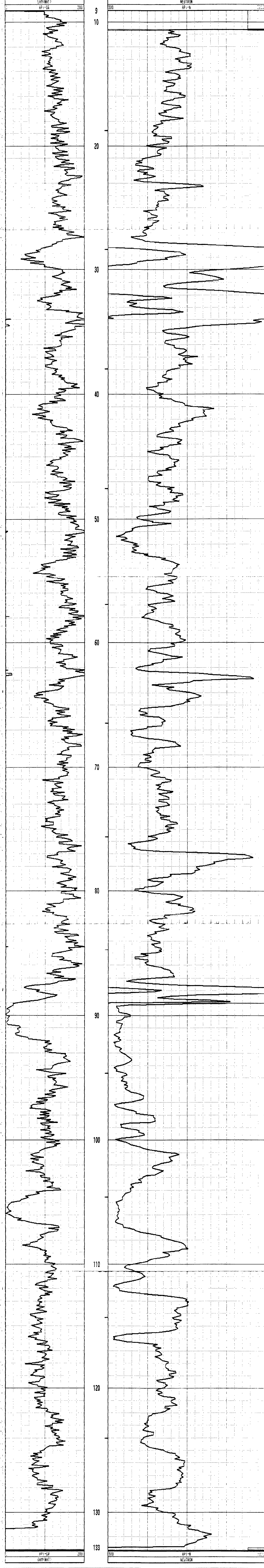
| TRUE DEPTH | TRUE DEPTH | NORTH DEV. | EAST DEV. | DISTANCE | AZIMUTH | SANG | SANGB |
|------------|------------|------------|-----------|----------|---------|------|-------|
| 0.0 | 10.00 | 0.00 | 0.00 | 0.0 | 10.6 | 1.9 | 10.0 |
| 10.0 | 15.00 | 0.14 | -0.01 | 0.1 | 356.4 | 1.9 | 1.0 |
| 20.0 | 20.00 | 0.30 | -0.00 | 0.3 | 359.4 | 2.0 | 1.0 |
| 30.0 | 24.99 | 0.46 | 0.01 | 0.5 | 0.8 | 2.1 | 2.3 |
| 40.0 | 29.99 | 0.63 | 0.02 | 0.6 | 1.4 | 1.6 | 358.3 |
| 50.0 | 34.99 | 0.76 | 0.03 | 0.8 | 2.5 | 1.1 | 3.7 |
| 60.0 | 39.99 | 0.84 | 0.04 | 0.8 | 2.6 | 1.0 | 3.8 |
| 70.0 | 44.99 | 0.93 | 0.05 | 0.9 | 3.0 | 1.2 | 7.2 |
| 80.0 | 49.99 | 1.01 | 0.06 | 1.0 | 3.6 | 2.2 | 25.1 |
| 90.0 | 54.98 | 1.15 | 0.09 | 1.2 | 4.6 | 1.6 | 26.4 |
| 100.0 | 59.98 | 1.29 | 0.13 | 1.3 | 5.8 | 1.6 | 14.5 |
| 110.0 | 64.98 | 1.41 | 0.18 | 1.4 | 7.1 | 1.4 | 19.7 |
| 120.0 | 69.98 | 1.53 | 0.23 | 1.5 | 8.6 | 1.2 | 27.3 |
| 130.0 | 74.98 | 1.63 | 0.29 | 1.7 | 10.0 | 1.2 | 33.0 |
| 140.0 | 79.97 | 1.74 | 0.36 | 1.8 | 11.8 | 1.4 | 32.9 |
| 150.0 | 84.97 | 1.83 | 0.43 | 1.9 | 13.1 | 0.9 | 24.7 |
| 160.0 | 89.97 | 1.93 | 0.50 | 2.0 | 14.6 | 1.4 | 35.6 |
| 170.0 | 94.97 | 2.04 | 0.58 | 2.1 | 15.9 | 1.5 | 33.9 |
| 180.0 | 99.97 | 2.15 | 0.66 | 2.2 | 17.1 | 1.6 | 36.0 |
| 190.0 | 104.97 | 2.25 | 0.75 | 2.4 | 18.4 | 1.8 | 44.2 |
| 200.0 | 109.96 | 2.37 | 0.85 | 2.5 | 19.7 | 1.8 | 39.3 |
| 210.0 | 114.96 | 2.50 | 0.96 | 2.7 | 20.9 | 2.2 | 40.5 |
| 220.0 | 119.96 | 2.62 | 1.06 | 2.8 | 22.1 | 1.7 | 39.7 |
| 230.0 | 124.95 | 2.79 | 1.03 | 3.0 | 20.3 | 4.2 | 296.0 |
| 240.0 | 129.94 | 3.00 | 1.20 | 3.2 | 21.7 | 1.4 | 5.7 |
| 242.9 | 132.84 | 2.96 | 1.12 | 3.2 | 20.8 | 1.7 | 132.9 |



GAMMA-NEUTRON

| | | | |
|-------------------|---------------------------|--------------------|---------------------|
| COMPANY | : PINE VALLEY COAL LTD. | OTHER SERVICES: | |
| WELL | : WRH-96-035 | 9055 | |
| LOCATION/FIELD | : WILLOW CREEK PROJECT | 9030 | |
| COUNTY | : PINE PASS | | |
| STATE | : BRITISH COLUMBIA | | |
| SECTION | : TOWNSHIP | RANGE | : |
| DATE | : 03/25/96 | PERMANENT DATUM | : GROUND ELEVATIONS |
| DEPTH DRILLER | : 133 | ELEV. PERM. DATUM: | GROUND KB : |
| LOG BOTTOM | : 133.20 | LOG MEASURED FROM: | GL DF : |
| LOG TOP | : 9.20 | DPL MEASURED FROM: | GL GL : |
| CASING DRILLER | : 6 | LOGGING UNIT | : 9603 |
| CASING TYPE | : STEEL | FIELD OFFICE | : CALGARY, A.B |
| CASING THICKNESS: | 0.65 | RECORDED BY | : B. DOONE |
| BIT SIZE | : 14 | BORHOLE FLUID | : H2O/AIR |
| MAGNETIC DFCL. | : 23 | RM TEMPERATURE | : |
| MATRIX DENSITY | : 2.65 | MATRIX DELTA T | : |
| FLUID DENSITY | : 1.1 | | |
| NEUTRON MATRIX | : SANDSTONE FLUID DELTA T | | |
| REMARKS | : | | |
| OPEN HOLE | : | | |
| VERTICAL | : | | |

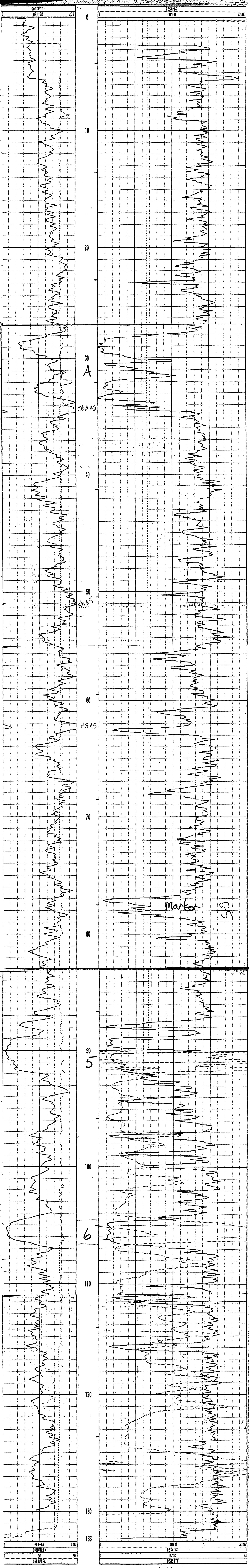
ALL SERVICES PROVIDED SUBJECT TO STANDARD TERMS AND CONDITIONS



GAMMA-RES-DENSITY

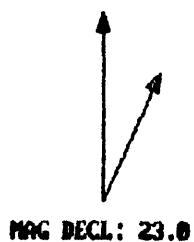
| | | | |
|-------------------|-------------------------|--------------------|---------------------------|
| COMPANY | : PINE VALLEY COAL LTD. | OTHER SERVICES: | |
| WELL | : WRH-96-035 | 9855 | |
| LOCATION/FIELD | : WILLOW CREEK PROJECT | 9838 | |
| COUNTY | : PINE PASS | | |
| STATE | : BRITISH COLUMBIA | | |
| SECTION | : TOWNSHIP | RANGE | : |
| DATE | : 03/25/96 | PERMANENT DATUM | : GROUND ELEVATIONS |
| DEPTH DRILLER | : 133 | ELEV. PERM. DATUM: | GROUND KB : |
| LOG BOTTOM | : 132.78 | LOG MEASURED FROM: | GL DF : |
| LOG TOP | : 0.48 | DRL MEASURED FROM: | GL GL : |
| CASING DRILLER | : 6 | LOGGING UNIT | : 9683 |
| CASING TYPE | : STEEL | FIELD OFFICE | : CALGARY, A.B |
| CASING THICKNESS: | 0.65 | RECORDED BY | : B. BOONE |
| BIT SIZE | : 14 | BOREHOLE FLUID | : H2O/AIR FILE : ORIGINAL |
| MAGNETIC DECL. | : 23 | RM | : TYPE : 9833AA |
| MATRIX DENSITY | : 2.65 | RM TEMPERATURE | : LOG : 2 |
| FLUID DENSITY | : 1.1 | MATRIX DELTA T | : PLOT : SMOKY 3 |
| NEUTRON MATRIX | : SANDSTONE | FLUID DELTA T | : THRESH: 10000 |
| REMARKS | : | | |
| OPEN HOLE | | | |
| VERTICAL | | | |

ALL SERVICES PROVIDED SUBJECT TO STANDARD TERMS AND CONDITIONS

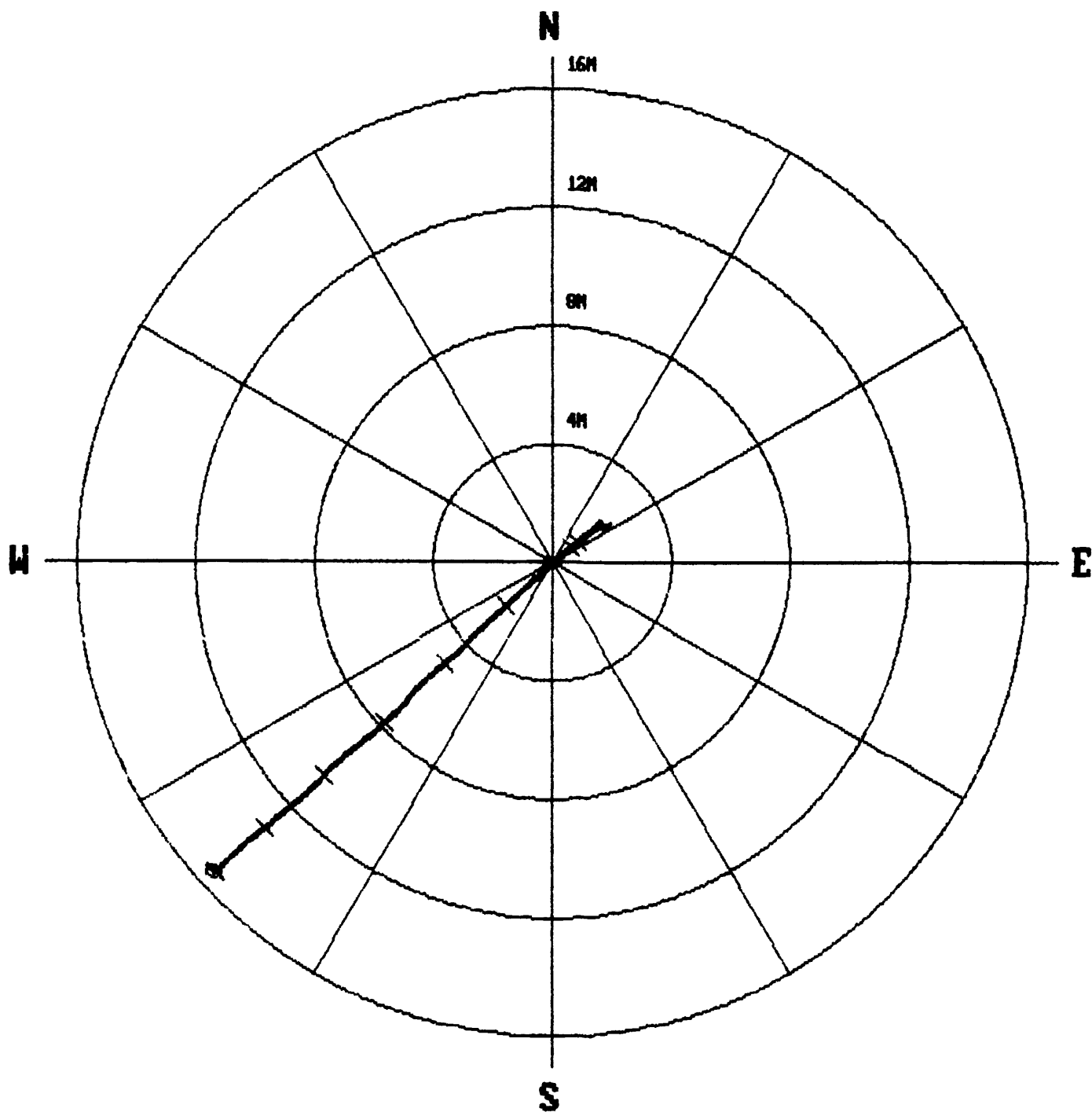


PLAN VIEW COMPU-LOG DEVIATION

CLIENT: PINE VALLEY COAL LTD.
 LOCATION: WILLOW CREEK PROJECT
 HOLE ID: WRH-96-036
 DATE OF LOG: 03/27/96
 PROBE: 9055A 58



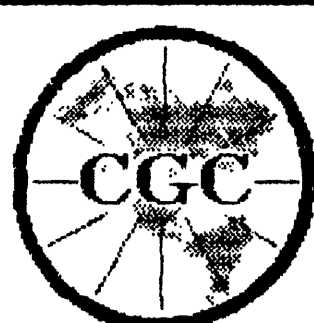
SCALE: 2 M/CM
 TRUE DEPTH: 39.15 M
 AZIMUTH: 227.4
 DISTANCE: 15.4 M
 + = 5 M INCR
 O = BOTTOM OF HOLE



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

| | | | |
|--------------|-----------------------|-------------|----------------|
| CLIENT | : PINE VALLEY COAL LT | HOLE ID. | : WRH-96-036 |
| FIELD OFFICE | : CALGARY, A.B | DATE OF LOG | : 03/27/96 |
| DATA FROM | : | PROBE | : 9055A , 58 |
| MAG. DECL. | : 23.000 | DEPTH UNITS | : METERS LOG 4 |

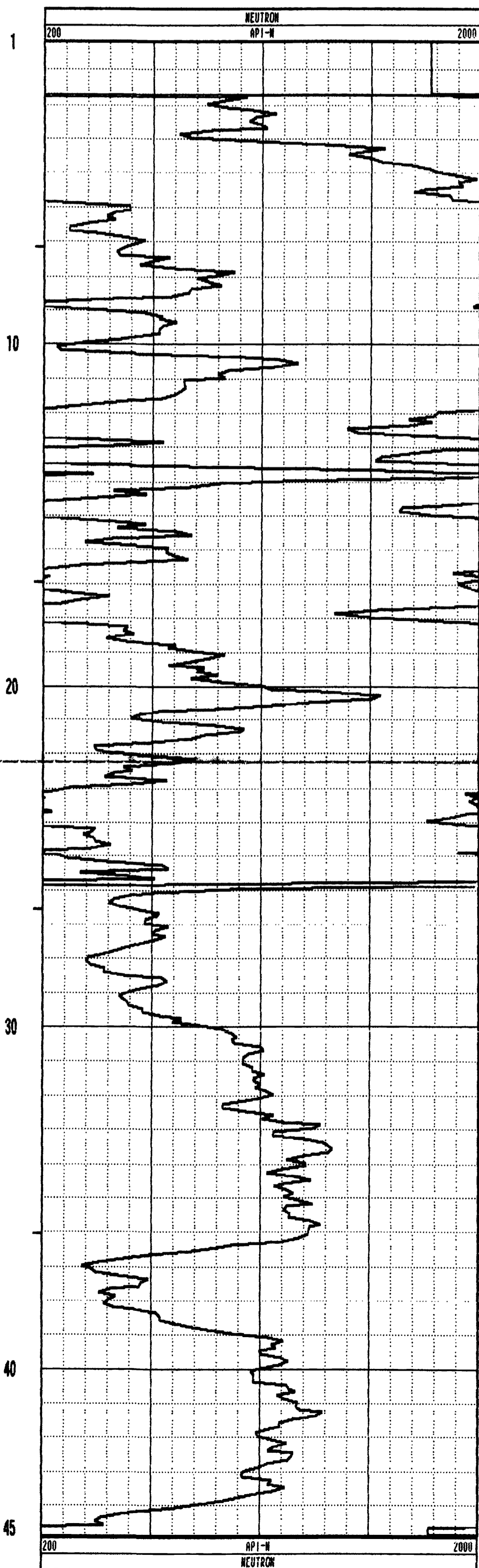
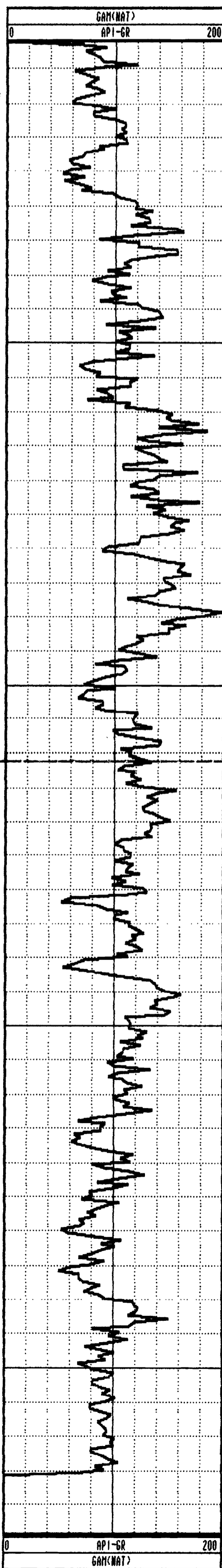
| CABLE DEPTH | TRUE DEPTH | NORTH DEV. | EAST DEV. | DISTANCE | AZIMUTH | SANG | SANGB |
|-------------|------------|------------|-----------|----------|---------|------|-------|
| 2.9 | 2.89 | -0.05 | -0.01 | 0.1 | 191.4 | 31.2 | 191.4 |
| 4.0 | 3.83 | 0.22 | 0.39 | 0.4 | 60.8 | 31.1 | 46.6 |
| 6.0 | 5.54 | 0.89 | 1.16 | 1.5 | 52.6 | 31.1 | 53.6 |
| 8.0 | 7.25 | 1.24 | 1.93 | 2.3 | 57.4 | 31.0 | 42.9 |
| 10.0 | 8.97 | 0.89 | 1.11 | 1.4 | 51.2 | 30.9 | 232.3 |
| 12.0 | 10.69 | 0.22 | 0.33 | 0.4 | 56.1 | 30.8 | 228.1 |
| 14.0 | 12.41 | -0.46 | -0.42 | 0.6 | 222.4 | 30.6 | 225.2 |
| 16.0 | 14.13 | -1.14 | -1.17 | 1.6 | 225.9 | 30.3 | 229.0 |
| 18.0 | 15.86 | -1.83 | -1.90 | 2.6 | 226.1 | 30.1 | 225.2 |
| 20.0 | 17.59 | -2.50 | -2.62 | 3.6 | 226.3 | 30.4 | 226.9 |
| 22.0 | 19.32 | -3.19 | -3.31 | 4.6 | 226.1 | 29.7 | 227.4 |
| 24.0 | 21.05 | -3.80 | -4.09 | 5.6 | 227.1 | 30.5 | 246.5 |
| 26.0 | 22.79 | -4.50 | -4.76 | 6.5 | 226.6 | 29.3 | 208.5 |
| 28.0 | 24.53 | -5.19 | -5.44 | 7.5 | 226.3 | 29.4 | 225.8 |
| 30.0 | 26.28 | -5.86 | -6.14 | 8.5 | 226.3 | 29.1 | 229.0 |
| 32.0 | 28.02 | -6.42 | -6.92 | 9.4 | 227.1 | 30.0 | 237.7 |
| 34.0 | 29.77 | -7.06 | -7.59 | 10.4 | 227.1 | 29.2 | 226.7 |
| 36.0 | 31.52 | -7.73 | -8.24 | 11.3 | 226.8 | 28.3 | 211.7 |
| 38.0 | 33.27 | -8.34 | -8.97 | 12.2 | 227.1 | 28.6 | 219.6 |
| 40.0 | 35.02 | -8.95 | -9.67 | 13.2 | 227.2 | 28.9 | 224.0 |
| 42.0 | 36.77 | -9.54 | -10.41 | 14.1 | 227.5 | 28.6 | 220.6 |
| 44.0 | 38.53 | -10.19 | -11.09 | 15.1 | 227.4 | 28.2 | 241.5 |
| 44.7 | 39.15 | -10.41 | -11.34 | 15.4 | 227.4 | 28.6 | 241.8 |



Century GEOPHYSICAL CORP.

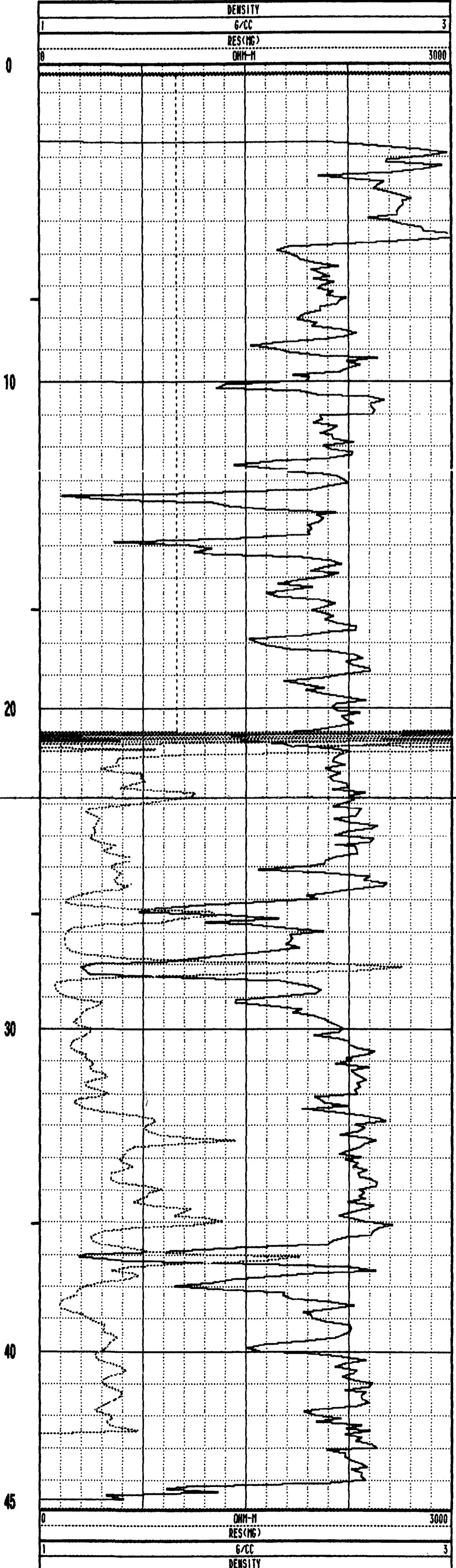
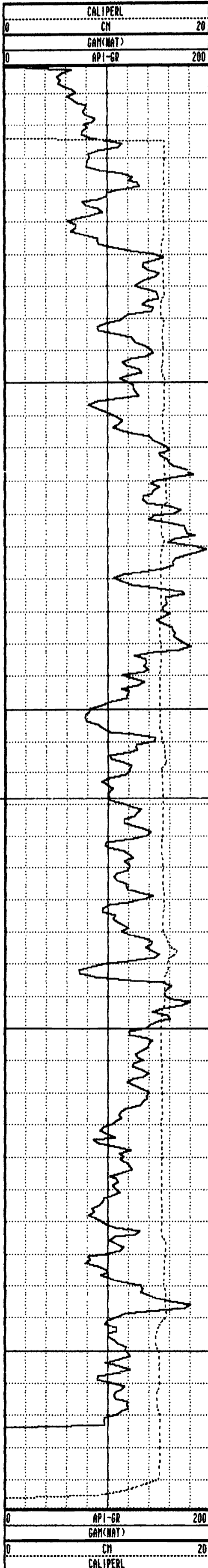
GAMMA-NEUTRON

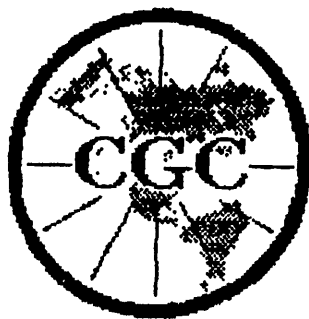
| | | | |
|--|-------------------------|--------------------|---------------------------|
| COMPANY | : PINE VALLEY COAL LTD. | OTHER SERVICES: | |
| WELL | : WRH-96-036 | 9055 | |
| LOCATION/FIELD | : WILLOW CREEK PROJECT | 9030 | |
| COUNTY | : PINE PASS | | |
| STATE | : BRITISH COLUMBIA | | |
| SECTION | : TOWNSHIP | RANGE | : |
| DATE | : 03/27/96 | PERMANENT DATUM | : GROUND ELEVATIONS |
| DEPTH DRILLER | : 45 | ELEV. PERM. DATUM: | GROUND KB : |
| LOG BOTTOM | : 45.00 | LOG MEASURED FROM: | GL DF : |
| LOG TOP | : 1.30 | DRL MEASURED FROM: | GL GL : |
| CASING DRILLER | : 5.7 | LOGGING UNIT | : 9603 |
| CASING TYPE | : STEEL | FIELD OFFICE | : CALGARY, A.B |
| CASING THICKNESS: | 0.65 | RECORDED BY | : B. BOONE |
| BIT SIZE | : 14 | BOREHOLE FLUID | : H2O/AIR FILE : ORIGINAL |
| MAGNETIC DECL. | : 23 | RM | : TYPE : 9055A |
| MATRIX DENSITY | : 2.65 | RM TEMPERATURE | : LOG : 3 |
| FLUID DENSITY | : 1.1 | MATRIX DELTA T | : PLOT : SMOKY 7 |
| NEUTRON MATRIX | : SANDSTONE | FLUID DELTA T | : THRESH: 10000 |
| REMARKS | : | | |
| OPEN HOLE | | | |
| HOLE DEVIATED TO 60 DEG. | | | |
| ALL SERVICES PROVIDED SUBJECT TO STANDARD TERMS AND CONDITIONS | | | |



GAMMA-RES-DENSITY

| | | | |
|--|-------------------------|-------------------|---------------------------|
| COMPANY | : PINE VALLEY COAL LTD. | OTHER SERVICES: | |
| WELL | : WRH-96-036 | 9855 | |
| LOCATION/FIELD | : WILLOW CREEK PROJECT | 9830 | |
| COUNTY | : PINE PASS | | |
| STATE | : BRITISH COLUMBIA | | |
| SECTION | : TOWNSHIP | | RANGE : |
| DATE | : 03/27/96 | PERMANENT DATUM | : GROUND ELEVATIONS |
| DEPTH DRILLER | : 45 | ELEV. PERM. DATUM | : GROUND KB : |
| LOG BOTTOM | : 45.00 | LOG MEASURED FROM | : GL DF : |
| LOG TOP | : 0.30 | DRL MEASURED FROM | : GL GL : |
| CASING DRILLER | : 5.7 | LOGGING UNIT | : 9603 |
| CASING TYPE | : STEEL | FIELD OFFICE | : CALGARY, A.B |
| CASING THICKNESS | : 0.65 | RECORDED BY | : B. BOONE |
| BIT SIZE | : 14 | BOREHOLE FLUID | : H2O/AIR FILE : ORIGINAL |
| MAGNETIC DECL. | : 23 | RM | : TYPE : 9833AA |
| MATRIX DENSITY | : 2.65 | RM TEMPERATURE | : LOG : 5 |
| FLUID DENSITY | : 1.1 | MATRIX DELTA T | : PLOT : SMOKY 3 |
| NEUTRON MATRIX | : SANDSTONE | FLUID DELTA T | : THRESH: 10000 |
| REMARKS | : | | |
| OPEN HOLE | | | |
| HOLE DEVIATED TO 60 DEG. | | | |
| ALL SERVICES PROVIDED SUBJECT TO STANDARD TERMS AND CONDITIONS | | | |

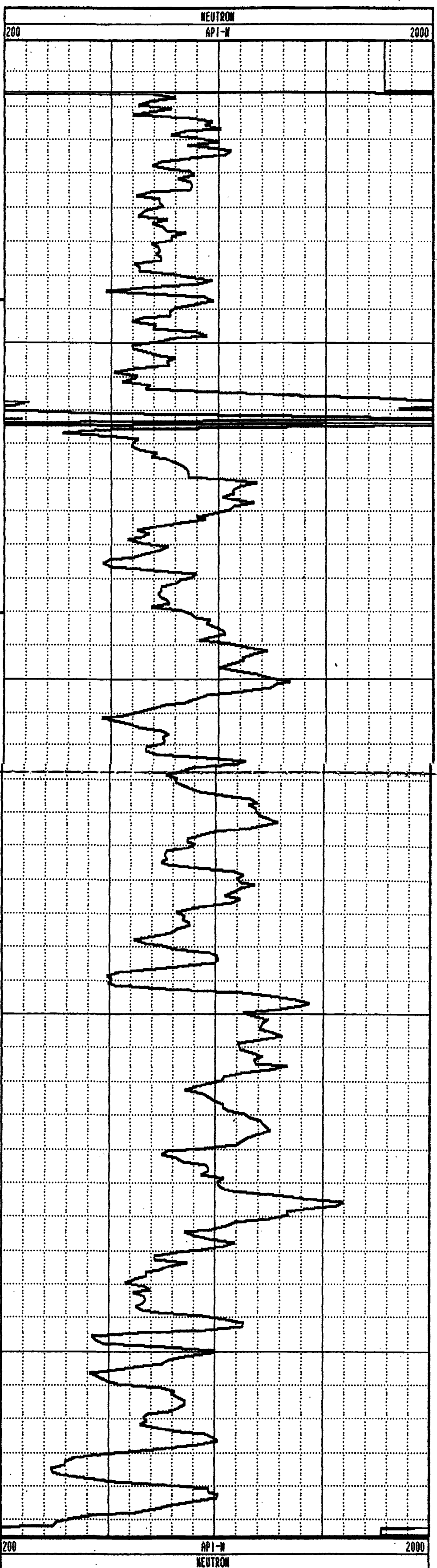
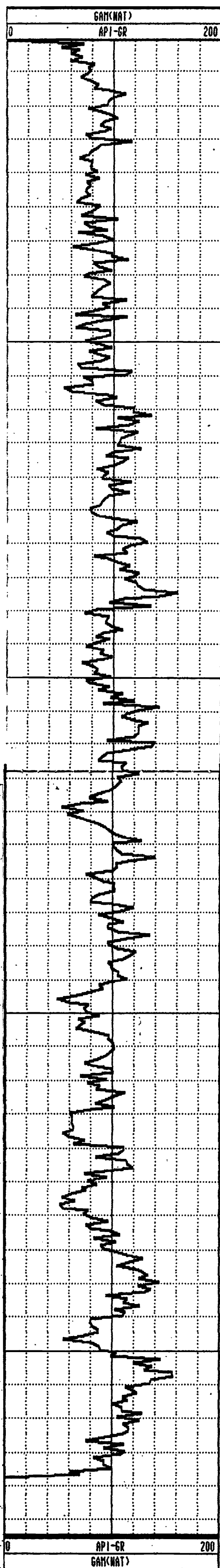




Century GEOPHYSICAL CORP.

GAMMA-NEUTRON

| | | | |
|--|---------------------------|--------------------|---------------------------|
| COMPANY | : PINE VALLEY COAL LTD. | OTHER SERVICES: | |
| WELL | : WRH-96-037 | 9055 | |
| LOCATION/FIELD | : WILLOW CREEK PROJECT | 9030 | |
| COUNTY | : PINE PASS | | |
| STATE | : BRITISH COLUMBIA | | |
| SECTION | : TOWNSHIP | : RANGE | : |
| DATE | : 03/28/96 | PERMANENT DATUM | : GROUND ELEVATIONS |
| DEPTH DRILLER | : 47 | ELEV. PERM. DATUM: | GROUND KB : |
| LOG BOTTOM | : 45.60 | LOG MEASURED FROM: | GL DF : |
| LOG TOP | : 1.20 | DRL MEASURED FROM: | GL CL : |
| LOGGING DRILLER | : 13 | LOGGING UNIT | : 9603 |
| LOGGING TYPE | : STEEL | FIELD OFFICE | : CALGARY, A.B |
| LOGGING THICKNESS: | 0.65 | RECORDED BY | : B. BOONE |
| LOG BIT SIZE | : 14 | BOREHOLE FLUID | : H2O/AIR FILE : ORIGINAL |
| MAGNETIC DECL. | : 23 | RM | : TYPE : 9055A |
| MATRIX DENSITY | : 2.65 | RM TEMPERATURE | : LOG : 1 |
| FLUID DENSITY | : 1.1 | MATRIX DELTA T | : PLOT : SMOKY 7 |
| NEUTRON MATRIX | : SANDSTONE FLUID DELTA T | | : THRESH: 10000 |
| REMARKS | : | | |
| OPEN HOLE | | | |
| HOLE DEVIATED TO 60 DEG. | | | |
| ALL SERVICES PROVIDED SUBJECT TO STANDARD TERMS AND CONDITIONS | | | |



GAMMA-RES-DENSITY

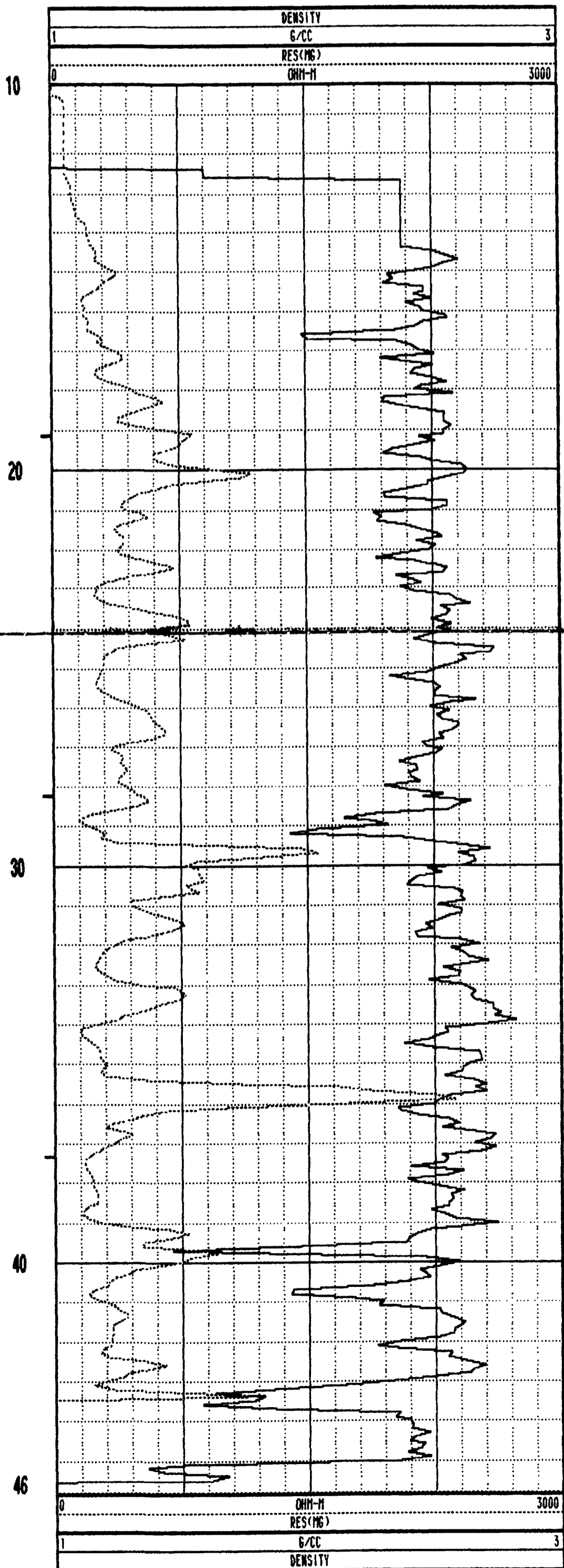
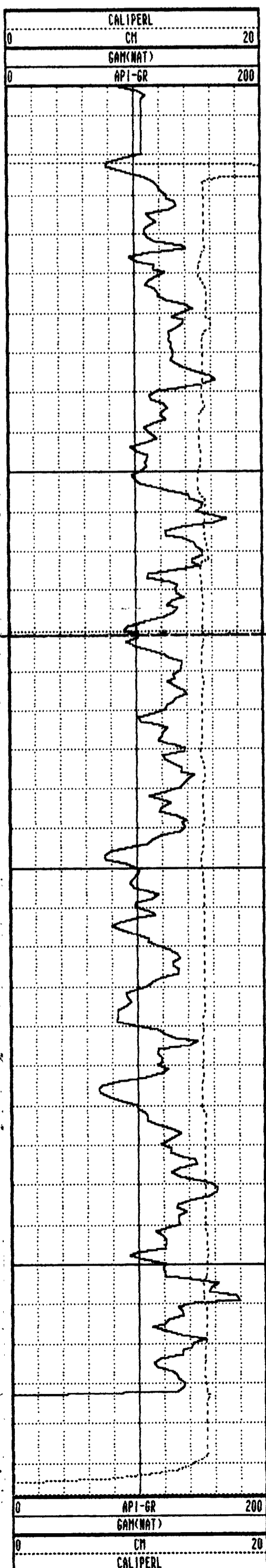
COMPANY : PINE VALLEY COAL LTD.
 WELL : WRH-96-037
 LOCATION/FIELD : WILLOW CREEK PROJECT
 COUNTY : PINE PASS
 STATE : BRITISH COLUMBIA
 SECTION : TOWNSHIP : RANGE :

OTHER SERVICES:
 9855
 9830

DATE : 03/28/96 PERMANENT DATUM : GROUND ELEVATIONS
 DEPTH DRILLER : 47 ELEV. PERM. DATUM: GROUND KB :
 LOG BOTTOM : 45.80 LOG MEASURED FROM: GL DF :
 LOG TOP : 10.30 DRL MEASURED FROM: GL GL :
 CASING DRILLER : 13 LOGGING UNIT : 9603
 CASING TYPE : STEEL FIELD OFFICE : CALGARY, A.B
 CASING THICKNESS: 0.65 RECORDED BY : B. BOONE

BIT SIZE : 14 BOREHOLE FLUID : H2O/AIR FILE : ORIGINAL
 MAGNETIC DECL. : 23 RM : TYPE : 9833AA
 MATRIX DENSITY : 2.65 RM TEMPERATURE : LOG : 2
 FLUID DENSITY : 1.1 MATRIX DELTA T : PLOT : SMOKY 3
 NEUTRON MATRIX : SANDSTONE FLUID DELTA T : THRESH: 10000
 REMARKS :
 OPEN HOLE
 HOLE DEVIATED TO 60 DEG.

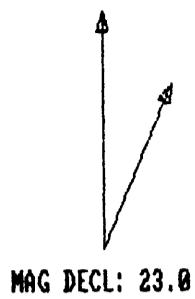
ALL SERVICES PROVIDED SUBJECT TO STANDARD TERMS AND CONDITIONS



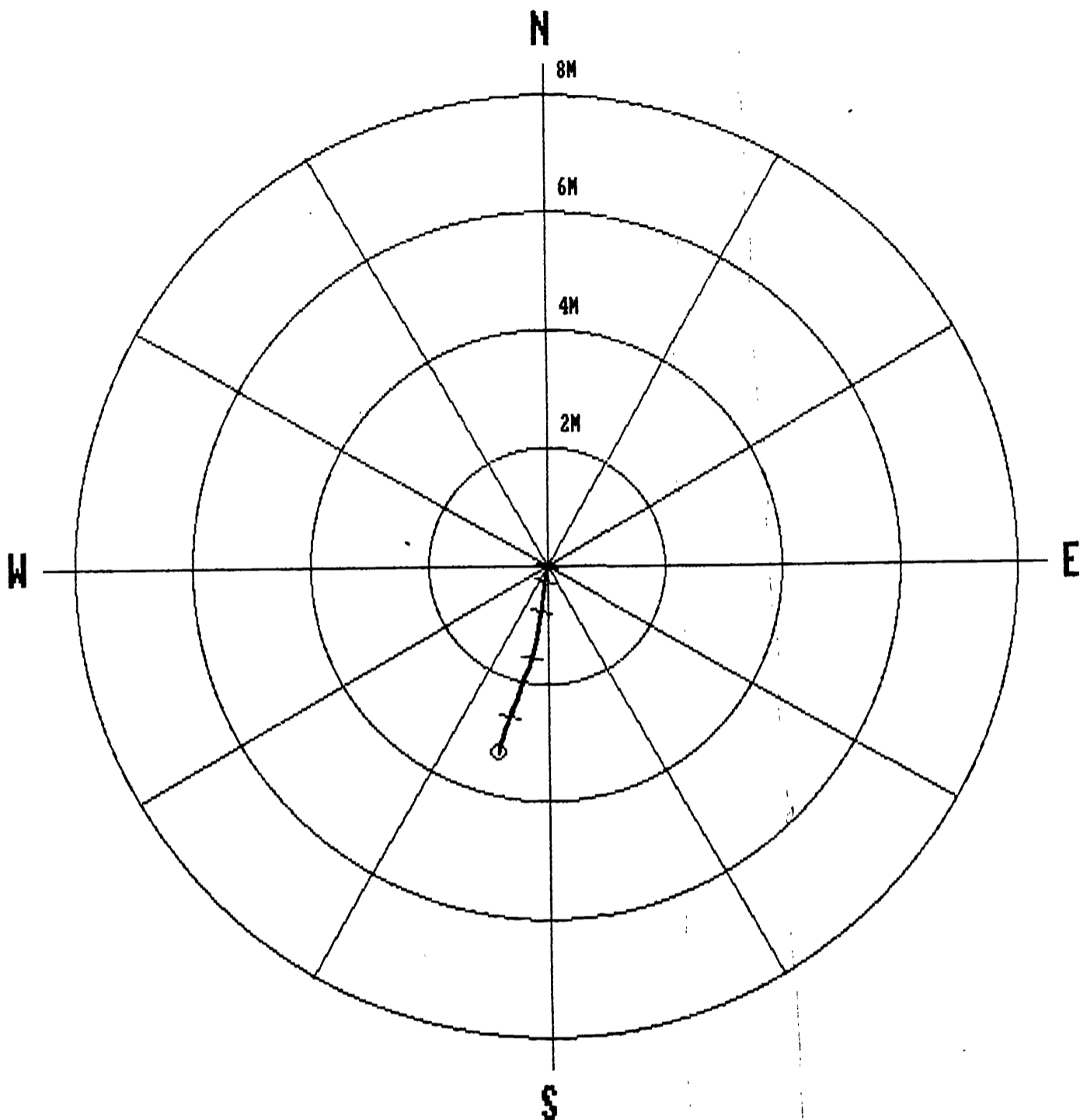
PLAN VIEW

COMPU-LOG DEVIATION

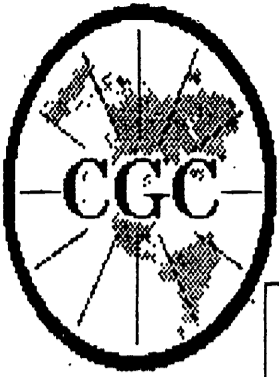
CLIENT: PINE VALLEY COAL
 LOCATION: WILLOW CREEK
 HOLE ID: WRH-96038
 DATE OF LOG: 09/26/96
 PROBE: 9055A 71



SCALE: 1 M/CM
 TRUE DEPTH: 27.47 M
 AZIMUTH: 195.2
 DISTANCE: 3.2 M
 + = 5 M INCR
 ○ = BOTTOM OF HOLE



| | | | | | | | |
|------|-------|-------|-------|-----|-------|------|-------|
| 1.0 | 1.00 | 0.00 | 0.00 | 0.0 | 0.0 | 0.0 | 0.0 |
| 2.0 | 2.00 | 0.00 | 0.00 | 0.0 | 0.0 | 0.0 | 0.0 |
| 3.0 | 3.00 | 0.01 | 0.00 | 0.0 | 13.5 | 0.4 | 1.7 |
| 4.0 | 4.00 | -0.01 | 0.00 | 0.0 | 17.8 | 1.1 | 138.8 |
| 5.0 | 5.00 | -0.01 | 0.00 | 0.0 | 151.5 | 0.9 | 186.8 |
| 6.0 | 6.00 | -0.04 | -0.00 | 0.0 | 183.0 | 1.9 | 195.8 |
| 7.0 | 7.00 | -0.07 | -0.01 | 0.1 | 187.5 | 2.8 | 191.1 |
| 8.0 | 8.00 | -0.13 | -0.02 | 0.1 | 187.8 | 3.7 | 188.9 |
| 9.0 | 9.00 | -0.18 | -0.03 | 0.2 | 188.9 | 4.1 | 190.5 |
| 10.0 | 9.99 | -0.25 | -0.04 | 0.3 | 189.2 | 4.3 | 183.6 |
| 11.0 | 10.99 | -0.33 | -0.05 | 0.3 | 188.5 | 4.8 | 189.7 |
| 12.0 | 11.99 | -0.42 | -0.06 | 0.4 | 188.2 | 5.1 | 187.4 |
| 13.0 | 12.98 | -0.51 | -0.07 | 0.5 | 187.9 | 6.2 | 187.4 |
| 14.0 | 13.97 | -0.63 | -0.09 | 0.6 | 188.1 | 6.6 | 185.2 |
| 15.0 | 14.97 | -0.75 | -0.10 | 0.8 | 188.0 | 8.1 | 179.5 |
| 16.0 | 15.96 | -0.88 | -0.13 | 0.9 | 188.4 | 8.2 | 191.9 |
| 17.0 | 16.95 | -1.03 | -0.16 | 1.0 | 188.9 | 9.3 | 198.1 |
| 18.0 | 17.93 | -1.19 | -0.19 | 1.2 | 188.9 | 9.6 | 189.6 |
| 19.0 | 18.92 | -1.36 | -0.22 | 1.4 | 189.2 | 9.6 | 194.5 |
| 20.0 | 19.90 | -1.53 | -0.27 | 1.6 | 190.0 | 11.0 | 197.4 |
| 21.0 | 20.88 | -1.71 | -0.33 | 1.7 | 190.9 | 11.2 | 206.3 |
| 22.0 | 21.86 | -1.89 | -0.41 | 1.9 | 192.3 | 12.2 | 196.6 |
| 23.0 | 22.84 | -2.10 | -0.48 | 2.2 | 192.9 | 13.0 | 190.8 |
| 24.0 | 23.81 | -2.30 | -0.56 | 2.4 | 193.6 | 12.5 | 197.1 |
| 25.0 | 24.79 | -2.51 | -0.64 | 2.6 | 194.4 | 13.5 | 206.0 |
| 26.0 | 25.76 | -2.73 | -0.73 | 2.8 | 195.0 | 14.7 | 206.6 |
| 27.0 | 26.73 | -2.94 | -0.79 | 3.0 | 195.1 | 14.8 | 208.5 |
| 27.8 | 27.47 | -3.12 | -0.85 | 3.2 | 195.2 | 14.3 | 198.7 |



Century GEOPHYSICAL CORP.

GAMMA-NEUTRON

COMPANY : PINE VALLEY COAL
 WELL : WRH-96038
 LOCATION/FIELD : WILLOW CREEK
 COUNTY :
 STATE : BRITISH COLUMBIA
 SECTION : TOWNSHIP : RANGE :

OTHER SERVICES:

DATE : 09/26/96
 DEPTH DRILLER : 30
 LOG BOTTOM : 27.82
 LOG TOP : 0.76

PERMANENT DATUM :
 ELEV. PERM. DATUM:
 LOG MEASURED FROM: G.L.
 DRL MEASURED FROM:

ELEVATIONS
 KB :
 DF :
 GL :

CASING DRILLER : 3
 CASING TYPE : STEEL
 CASING THICKNESS: .25

LOGGING UNIT : 9612
 FIELD OFFICE : CALGARY, AB.
 RECORDED BY : R. THOMAS

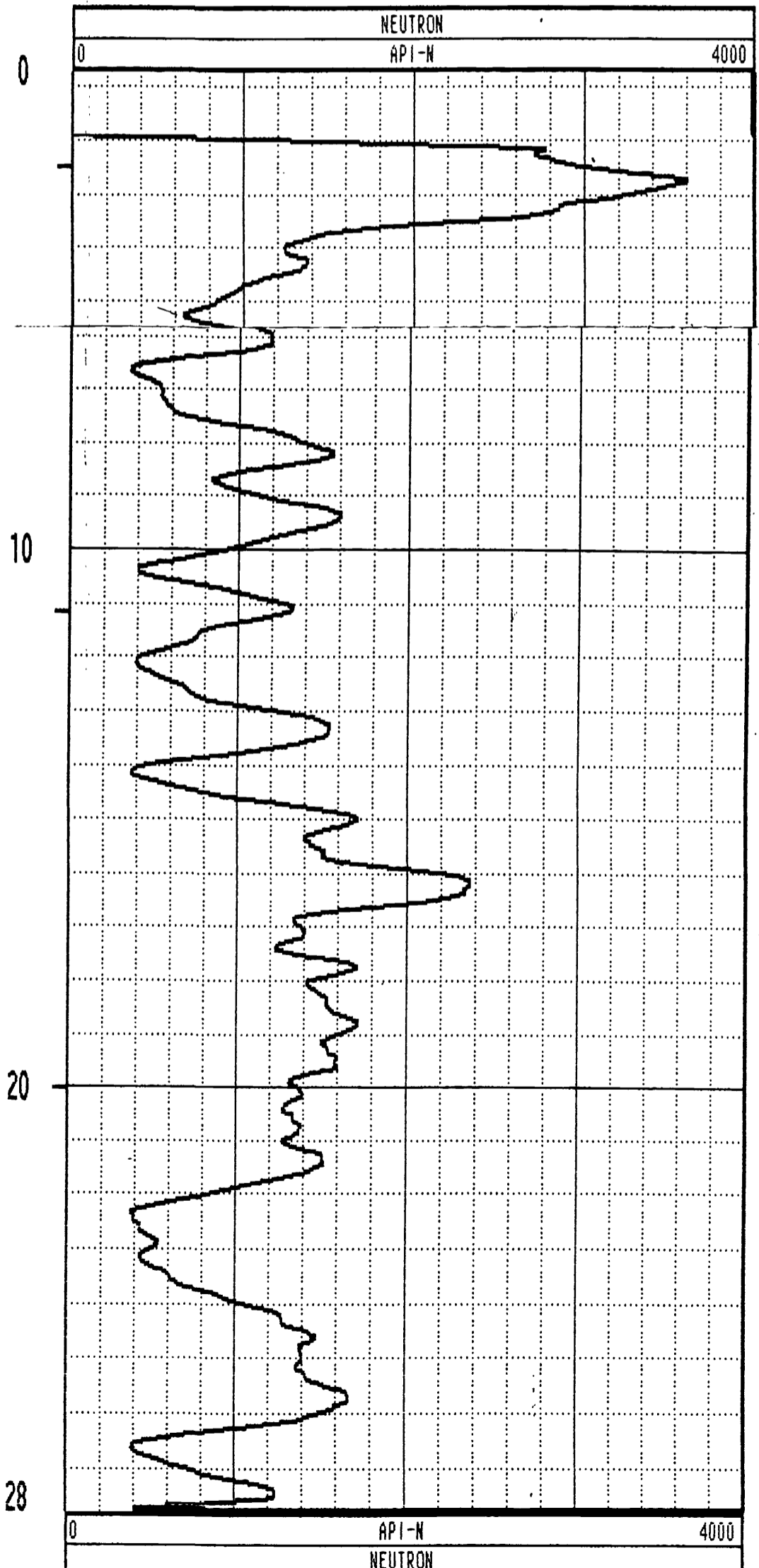
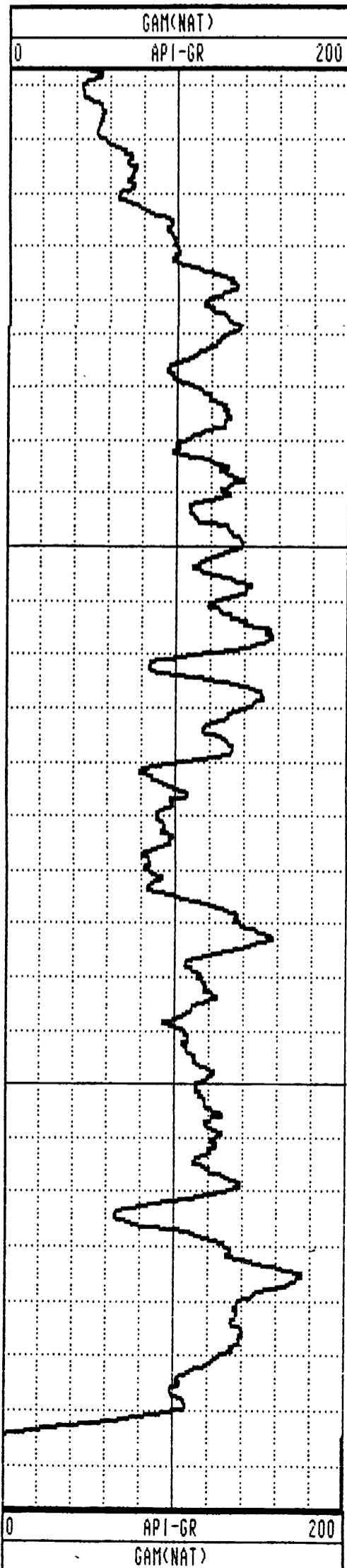
BIT SIZE :
 MAGNETIC DECL. : 23.00
 MATRIX DENSITY :
 FLUID DENSITY : 1.1
 NEUTRON MATRIX : 2.65

BOREHOLE FLUID : WATER
 RM :
 RM TEMPERATURE :
 MATRIX DELTA T :
 FLUID DELTA T :

FILE : ORIGINAL
 TYPE : 9055A
 LOG : 2
 PLOT : PINE 4
 THRESH: 10000

REMARKS :
NONE

ALL SERVICES PROVIDED SUBJECT TO STANDARD TERMS AND CONDITIONS



GAMMA-RES-DENSITY

COMPANY : PINE VALLEY COAL
WELL : WRH-96038
LOCATION/FIELD : WILLOW CREEK
COUNTY :
STATE : BRITISH COLUMBIA
SECTION :

OTHER SERVICES:

DATE : 09/23/96
DEPTH DRILLER : 29
LOG BOTTOM : 28.50
LOG TOP : 0.14

PERMANENT DATUM :
ELEV. PERM. DATUM:
LOG MEASURED FROM: G.L.
DRL MEASURED FROM:

ELEVATIONS
KB :
DF :
GL :

CASING DRILLER : 3
CASING TYPE : STEEL
CASING THICKNESS: .25

LOGGING UNIT : 9612
FIELD OFFICE : CALGARY, AB.
RECORDED BY : R. THOMAS

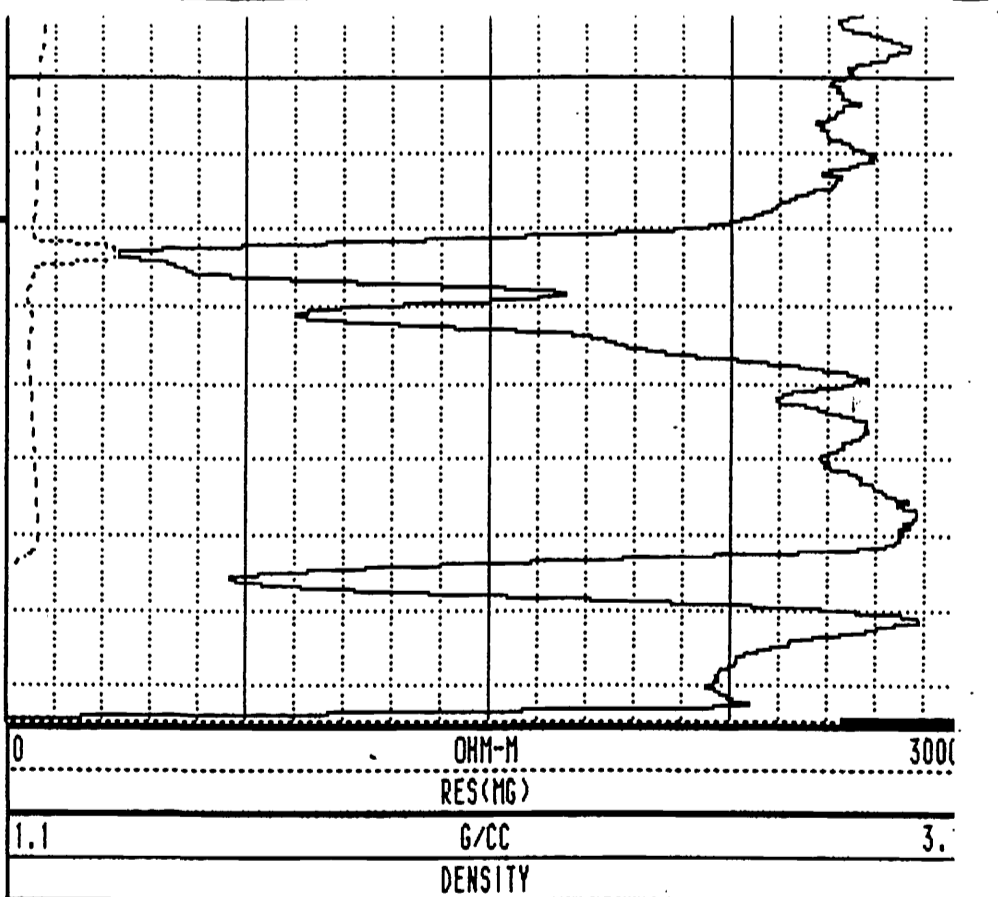
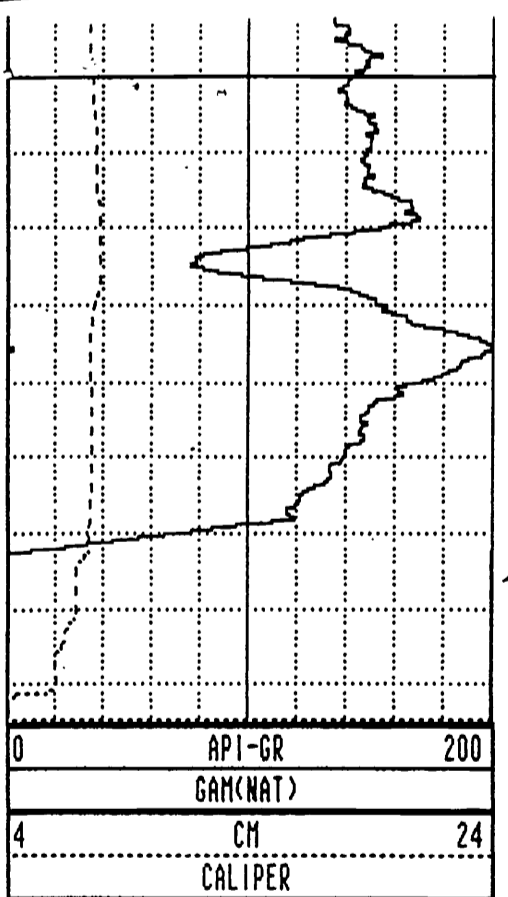
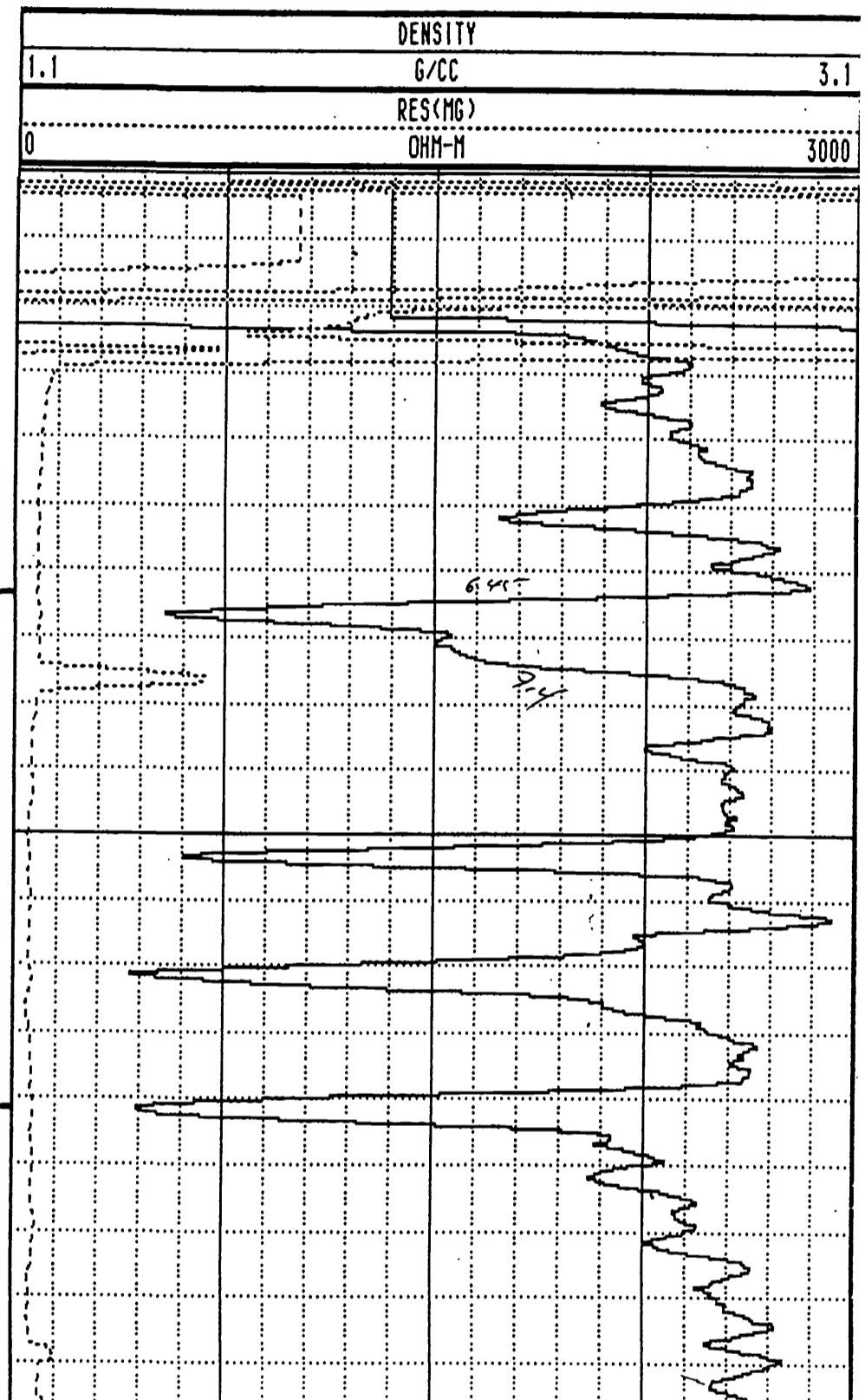
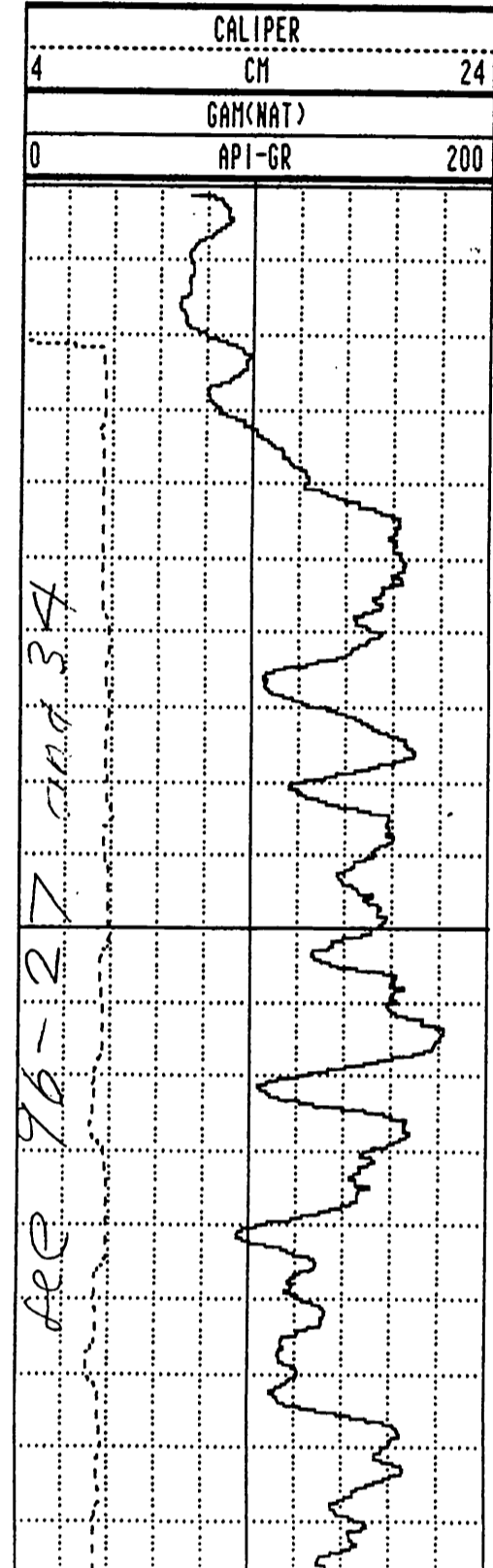
BIT SIZE :
MAGNETIC DECL. : 23.00
MATRIX DENSITY :
FLUID DENSITY : 1.1
NEUTRON MATRIX : 2.65

BOREHOLE FLUID : WATER
RM :
RM TEMPERATURE :
MATRIX DELTA T :
FLUID DELTA T :

FILE : ORIGINAL
TYPE : 9033AA
LOG : 6
PLOT : PINE 5
THRESH: 10000

REMARKS :
NONE

ALL SERVICES PROVIDED SUBJECT TO STANDARD TERMS AND CONDITIONS



WRH-96038 09/23/96 958

TOOL CALIBRATION TOOL = 9033AA SERIAL NUMBER = 958

| CAL-DATE | CAL-TIME | SRCE | SENSOR | RESPONSE | STANDARD |
|----------|----------|----------|-------------|--------------|--------------|
| 0 | NOV10.95 | 15:11:22 | 0 CALIPERL | 0.000 CPS | 0.000 CM |
| 1 | NOV10.95 | 15:11:22 | 0 CALIPERL | 0.000 CPS | 0.000 CM |
| 2 | JUL19.96 | 19:42:28 | -6 GAM(NAT) | 5310.000 CPS | 1.106 API-GR |
| 3 | JUL19.96 | 19:42:28 | -6 GAM(NAT) | 2191.000 CPS | 2.199 API-GR |
| 4 | JUL20.96 | 14:31:55 | 0 DENSITY | 0.000 CPS | 0.000 G/CC |
| 5 | JUL20.96 | 14:31:55 | 0 DENSITY | 0.000 CPS | 0.000 G/CC |
| 6 | JUL18.96 | 17:53:34 | 0 RES(MG) | 0.000 CPS | 1.106 OHM-M |
| 7 | JUL18.96 | 17:53:34 | 0 RES(MG) | 0.000 CPS | 0.000 OHM-M |
| 8 | NOV13.95 | 13:41:31 | 0 CALIPER | 271.000 CPS | 7.600 CM |
| 9 | NOV13.95 | 13:41:31 | 0 CALIPER | 1880.000 CPS | 17.800 CM |
| 10 | NOV10.95 | 15:11:22 | 0 DENSITYH | 0.000 CPS | 0.000 G/CC |
| 11 | NOV10.95 | 15:11:22 | 0 DENSITYH | 0.000 CPS | 0.000 G/CC |
| 12 | NOV15.95 | 10:21:21 | 0 CALIPERL | 0.000 CPS | 5.100 CM |
| 13 | NOV15.95 | 10:21:21 | 0 CALIPERL | 2366.000 CPS | 33.000 CM |

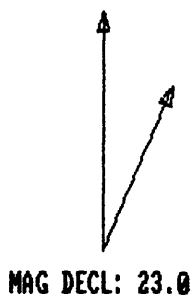
38

| | | | | | | | |
|------|-------|-------|-------|-----|-------|------|-------|
| 1.0 | 1.00 | 0.00 | 0.00 | 0.0 | 0.0 | 0.0 | 0.0 |
| 2.0 | 2.00 | 0.00 | 0.00 | 0.0 | 0.0 | 0.0 | 0.0 |
| 3.0 | 3.00 | -0.00 | -0.01 | 0.0 | 269.8 | 1.5 | 273.2 |
| 4.0 | 4.00 | -0.02 | -0.00 | 0.0 | 182.9 | 2.3 | 84.6 |
| 5.0 | 5.00 | -0.03 | 0.01 | 0.0 | 169.3 | 2.2 | 232.5 |
| 6.0 | 6.00 | -0.03 | -0.02 | 0.0 | 209.5 | 3.5 | 244.3 |
| 7.0 | 7.00 | -0.07 | -0.06 | 0.1 | 222.2 | 4.1 | 225.9 |
| 8.0 | 7.99 | -0.12 | -0.11 | 0.2 | 222.9 | 5.2 | 232.7 |
| 9.0 | 8.99 | -0.18 | -0.19 | 0.3 | 227.2 | 5.9 | 227.0 |
| 10.0 | 9.98 | -0.25 | -0.28 | 0.4 | 229.0 | 7.4 | 222.8 |
| 11.0 | 10.97 | -0.32 | -0.40 | 0.5 | 230.7 | 7.8 | 234.2 |
| 12.0 | 11.96 | -0.42 | -0.51 | 0.7 | 230.5 | 9.1 | 235.1 |
| 13.0 | 12.95 | -0.53 | -0.64 | 0.8 | 230.4 | 10.4 | 218.4 |
| 14.0 | 13.93 | -0.65 | -0.77 | 1.0 | 230.1 | 10.2 | 226.9 |
| 15.0 | 14.91 | -0.77 | -0.91 | 1.2 | 229.7 | 11.1 | 221.1 |
| 16.0 | 15.89 | -0.92 | -1.05 | 1.4 | 228.9 | 12.1 | 216.2 |
| 17.0 | 16.87 | -1.07 | -1.20 | 1.6 | 228.3 | 13.1 | 227.8 |
| 17.3 | 17.16 | -1.11 | -1.25 | 1.7 | 228.4 | 13.2 | 227.9 |

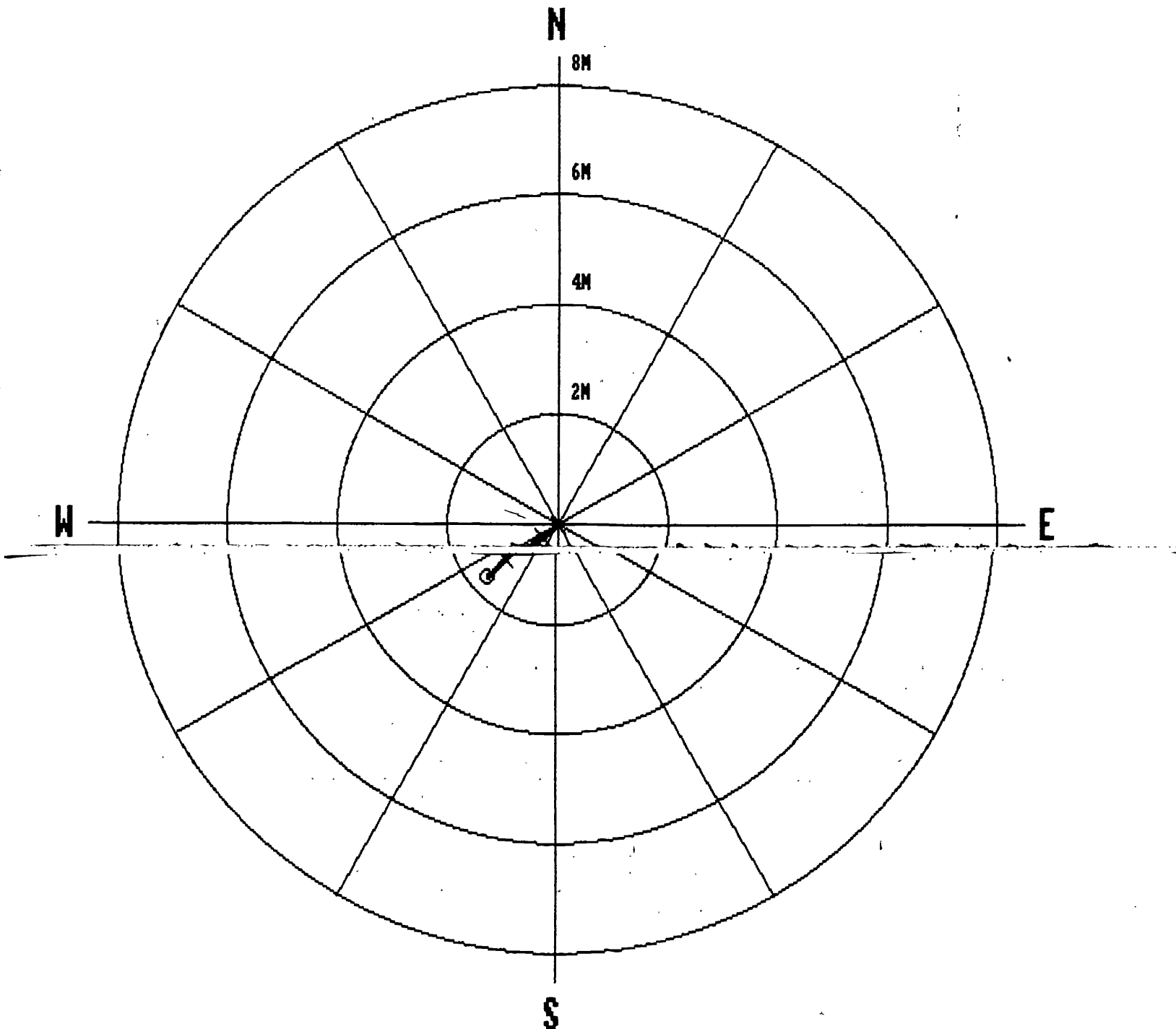
PLAN VIEW

COMPU-LOG DEVIATION

CLIENT: PINE VALLEY COAL
LOCATION: WILLOW CREEK
HOLE ID: MRH-96039
DATE OF LOG: 09/26/96
PROBE: 9055A 71



SCALE: 1 M/CM
TRUE DEPTH: 17.16 M
AZIMUTH: 228.4
DISTANCE: 1.7 M
+ = 5 M INCR
○ = BOTTOM OF HOLE





Century GEOPHYSICAL CORP.

GAMMA-NEUTRON

COMPANY : PINE VALLEY COAL
 WELL : WRH-96039
 LOCATION/FIELD : WILLOW CREEK
 COUNTY :
 STATE : BRITISH COLUMBIA
 SECTION : TOWNSHIP : RANGE :

OTHER SERVICES:

DATE : 09/26/96
 DEPTH DRILLER : 30
 LOG BOTTOM : 17.35
 LOG TOP : 0.78

PERMANENT DATUM :
 ELEV. PERM. DATUM:
 LOG MEASURED FROM: G.L.
 DRL MEASURED FROM:

ELEVATIONS
 KB :
 DF :
 GL :

CASING DRILLER : 3
 CASING TYPE : STEEL
 CASING THICKNESS: .25

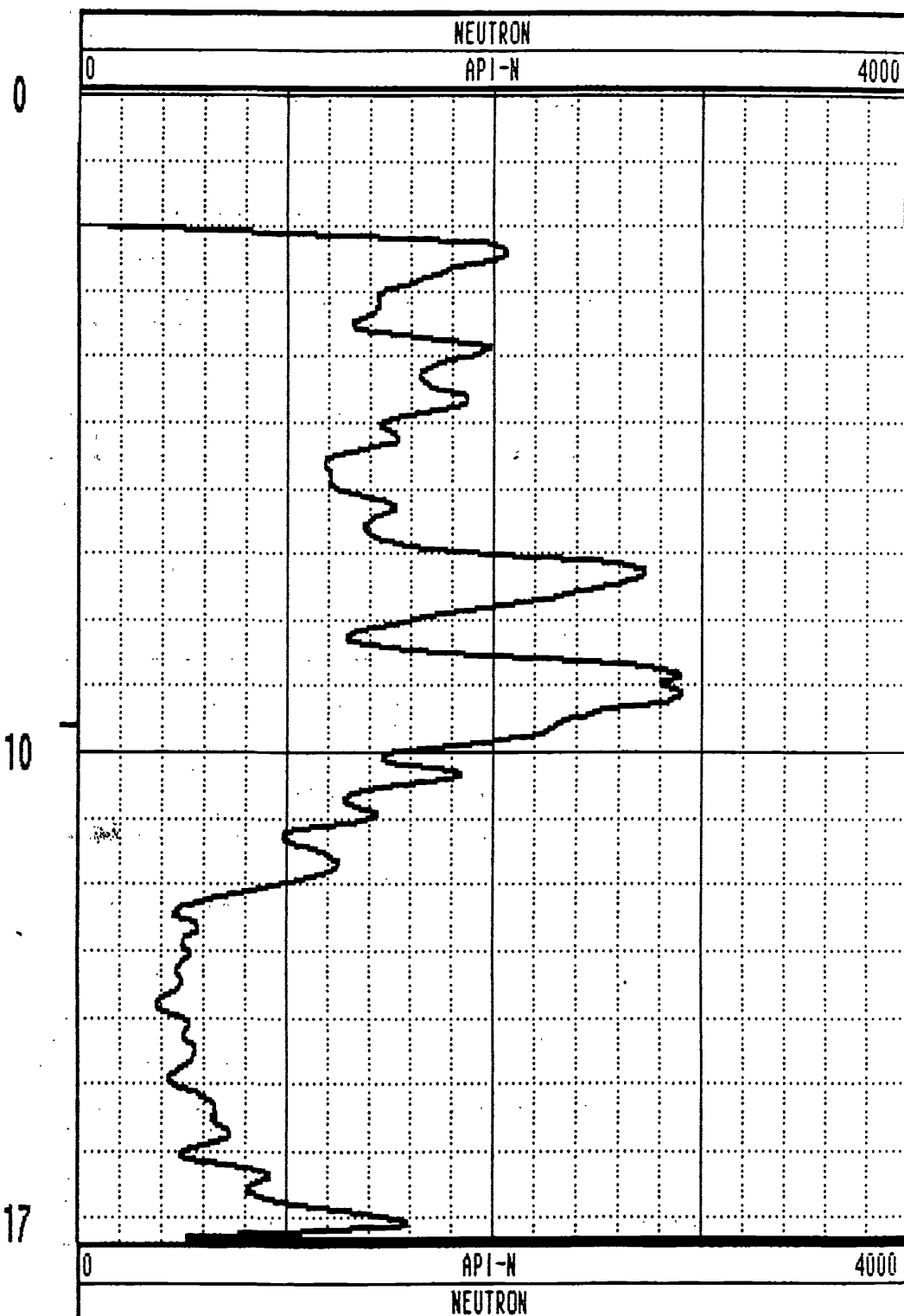
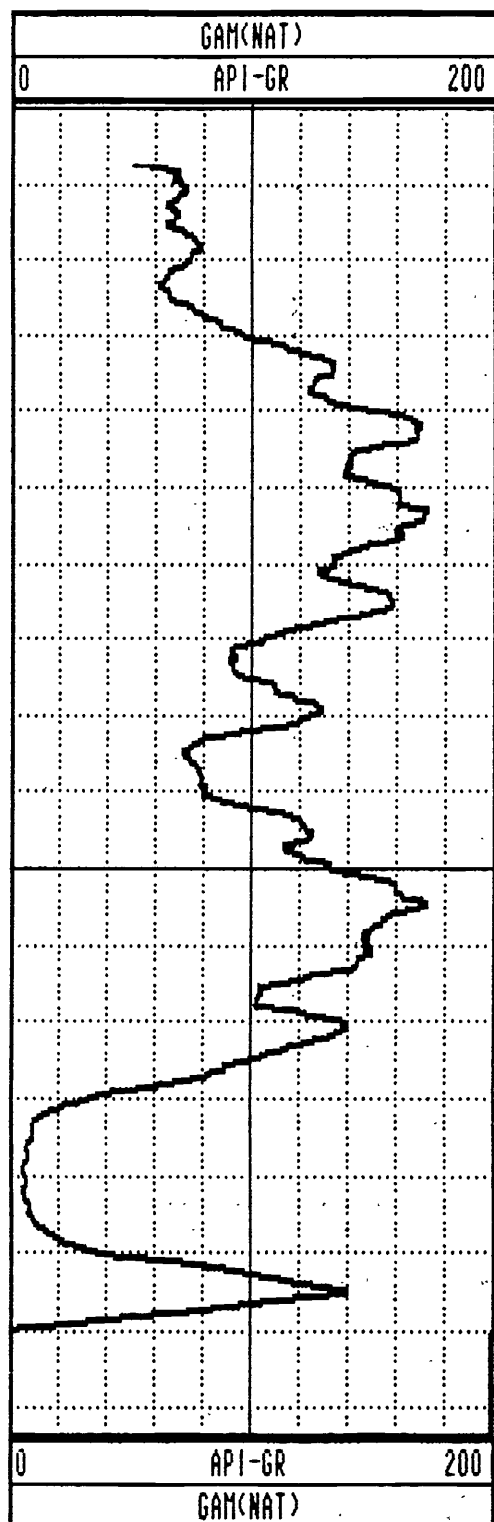
LOGGING UNIT : 9612
 FIELD OFFICE : CALGARY, AB.
 RECORDED BY : R. THOMAS

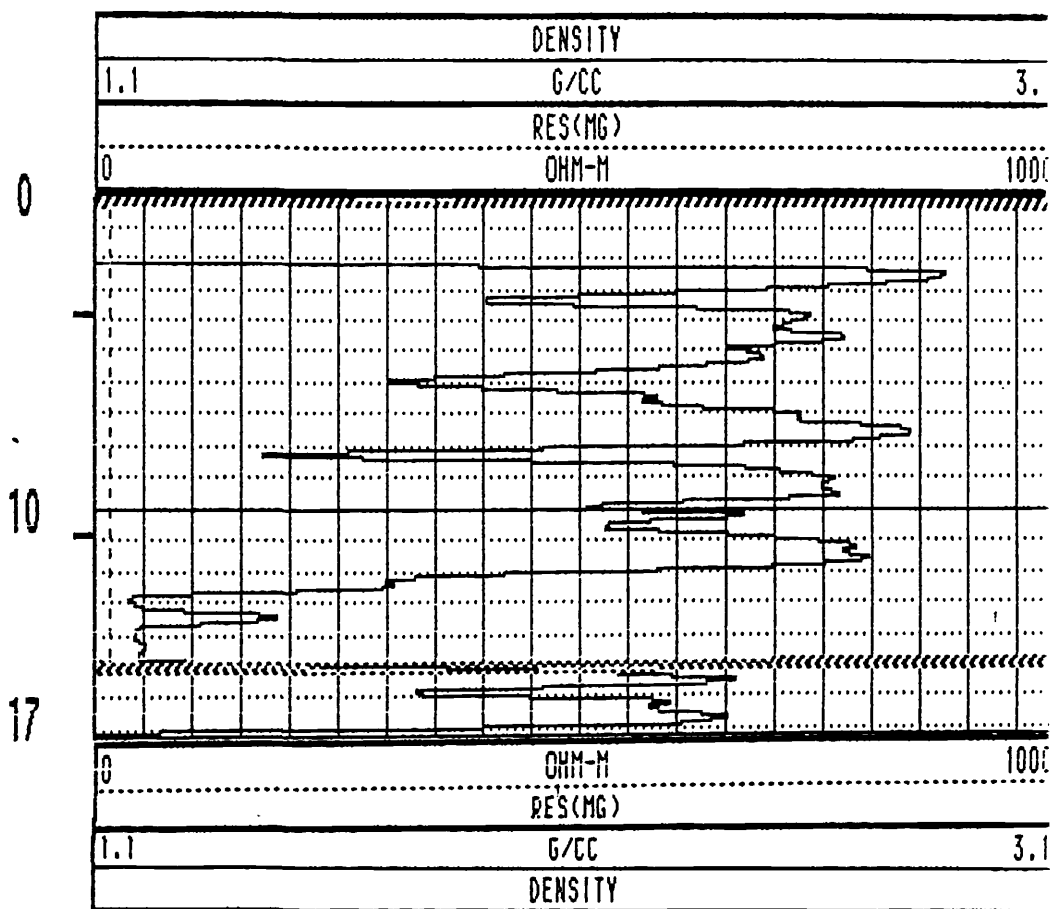
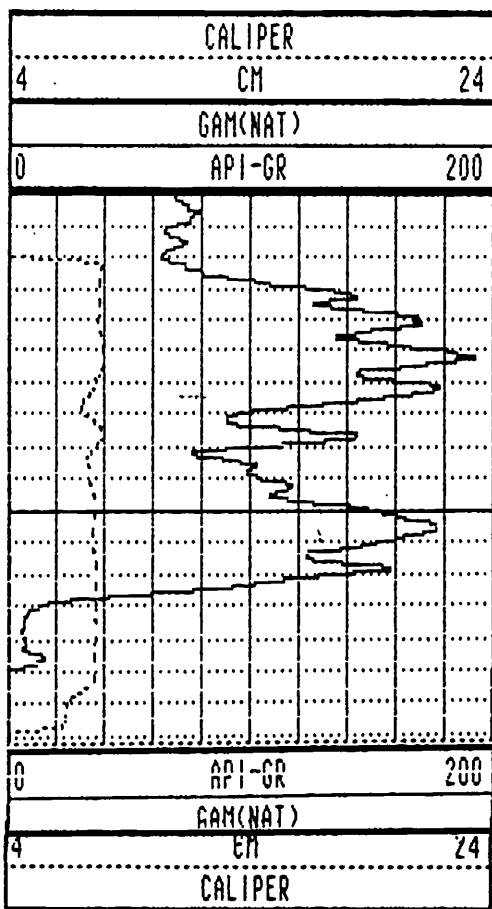
BIT SIZE :
 MAGNETIC DECL. : 23.00
 MATRIX DENSITY :
 FLUID DENSITY : 1.1
 NEUTRON MATRIX : 2.65
 REMARKS :
 NONE

BOREHOLE FLUID : WATER
 RM :
 RM TEMPERATURE :
 MATRIX DELTA T :
 FLUID DELTA T :

FILE : ORIGINAL
 TYPE : 9055A
 LOG : 6
 PLOT : PINE 4
 THRESH: 10000

ALL SERVICES PROVIDED SUBJECT TO STANDARD TERMS AND CONDITIONS

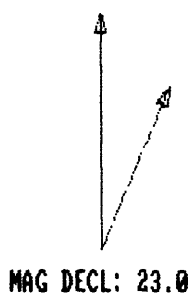




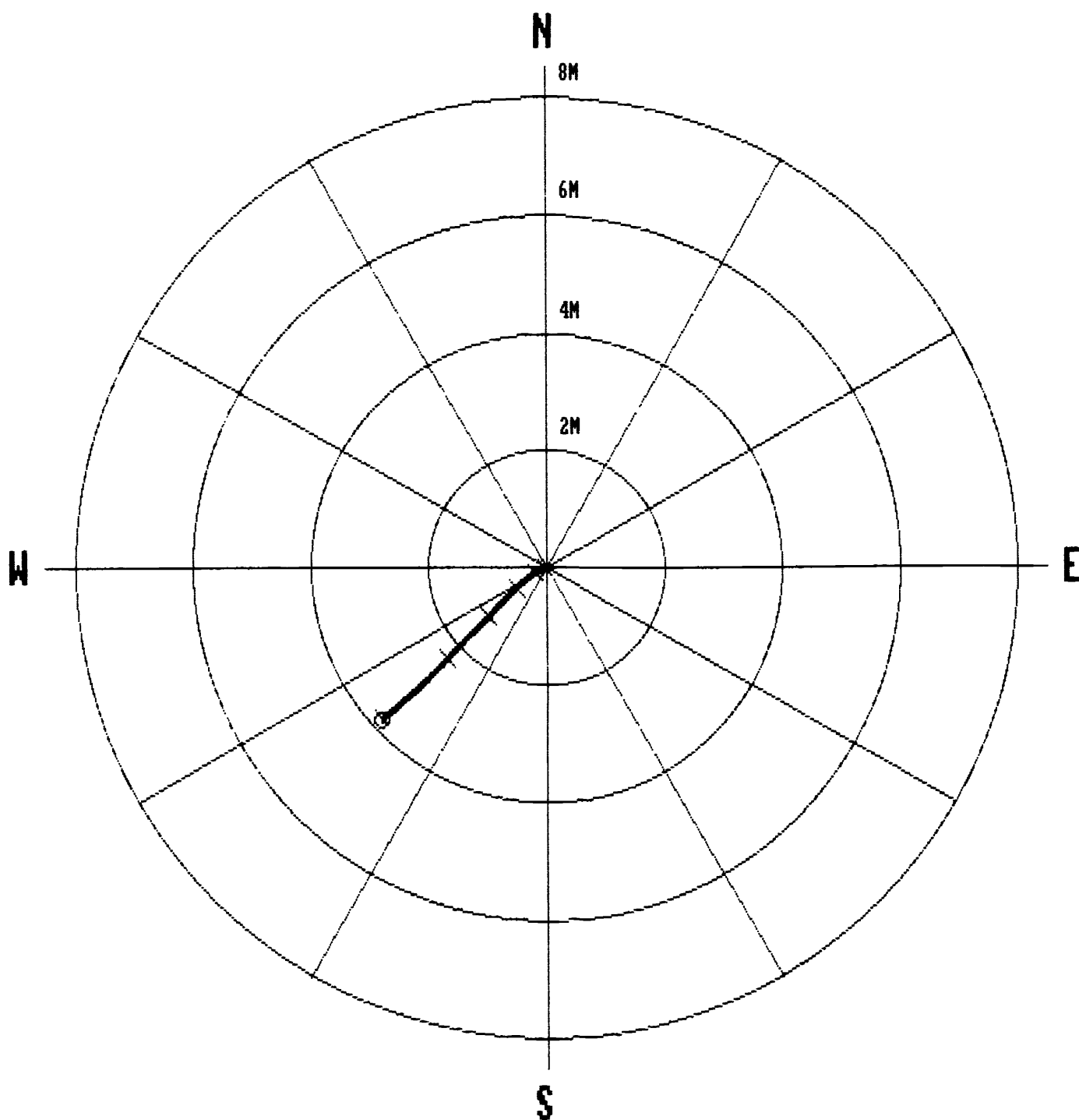
| | | | | | | | |
|------|-------|-------|-------|-----|-------|------|-------|
| 1.0 | 1.00 | 0.00 | 0.00 | 0.0 | 0.0 | 0.0 | 0.0 |
| 2.0 | 2.00 | 0.00 | 0.00 | 0.0 | 29.0 | 1.3 | 29.0 |
| 3.0 | 3.00 | -0.01 | -0.00 | 0.0 | 202.8 | 0.8 | 47.7 |
| 4.0 | 4.00 | -0.01 | -0.01 | 0.0 | 230.3 | 0.9 | 262.8 |
| 5.0 | 5.00 | -0.01 | -0.02 | 0.0 | 227.6 | 0.8 | 165.9 |
| 6.0 | 6.00 | -0.02 | -0.03 | 0.0 | 232.5 | 1.3 | 255.0 |
| 7.0 | 7.00 | -0.03 | -0.06 | 0.1 | 243.0 | 2.0 | 251.9 |
| 8.0 | 8.00 | -0.04 | -0.09 | 0.1 | 245.9 | 2.3 | 249.5 |
| 9.0 | 9.00 | -0.06 | -0.13 | 0.1 | 246.0 | 2.9 | 243.6 |
| 10.0 | 10.00 | -0.09 | -0.18 | 0.2 | 244.7 | 3.7 | 240.6 |
| 11.0 | 10.99 | -0.12 | -0.24 | 0.3 | 242.4 | 4.2 | 234.7 |
| 12.0 | 11.99 | -0.17 | -0.30 | 0.3 | 240.5 | 4.4 | 232.4 |
| 13.0 | 12.99 | -0.22 | -0.36 | 0.4 | 238.9 | 5.0 | 231.7 |
| 14.0 | 13.98 | -0.27 | -0.42 | 0.5 | 237.2 | 5.4 | 224.9 |
| 15.0 | 14.98 | -0.34 | -0.50 | 0.6 | 235.3 | 6.6 | 222.4 |
| 16.0 | 15.97 | -0.42 | -0.58 | 0.7 | 233.8 | 6.9 | 225.7 |
| 17.0 | 16.96 | -0.51 | -0.66 | 0.8 | 232.4 | 7.5 | 217.4 |
| 18.0 | 17.96 | -0.61 | -0.76 | 1.0 | 231.4 | 8.3 | 224.6 |
| 19.0 | 18.94 | -0.71 | -0.86 | 1.1 | 230.5 | 9.0 | 225.7 |
| 20.0 | 19.93 | -0.83 | -0.97 | 1.3 | 229.6 | 9.4 | 223.8 |
| 21.0 | 20.92 | -0.94 | -1.09 | 1.4 | 229.1 | 9.7 | 226.1 |
| 22.0 | 21.90 | -1.07 | -1.21 | 1.6 | 228.5 | 10.2 | 224.7 |
| 23.0 | 22.89 | -1.20 | -1.34 | 1.8 | 228.3 | 11.8 | 227.7 |
| 24.0 | 23.86 | -1.35 | -1.49 | 2.0 | 227.8 | 12.6 | 229.2 |
| 25.0 | 24.83 | -1.52 | -1.65 | 2.2 | 227.3 | 14.3 | 220.5 |
| 26.0 | 25.80 | -1.70 | -1.83 | 2.5 | 227.0 | 15.7 | 221.1 |
| 27.0 | 26.76 | -1.90 | -2.02 | 2.8 | 226.8 | 16.8 | 232.8 |
| 28.0 | 27.72 | -2.10 | -2.24 | 3.1 | 226.9 | 17.1 | 234.2 |
| 29.0 | 28.67 | -2.30 | -2.48 | 3.4 | 227.2 | 18.8 | 231.3 |
| 30.0 | 29.61 | -2.51 | -2.72 | 3.7 | 227.3 | 20.0 | 227.8 |
| 30.3 | 29.85 | -2.57 | -2.79 | 3.8 | 227.3 | 20.4 | 230.7 |

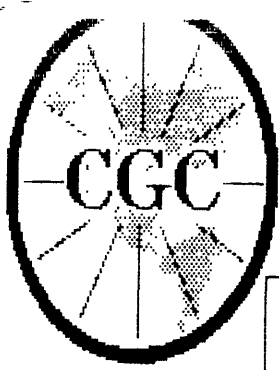
PLAN VIEW COMPU-LOG DEVIATION

CLIENT: PINE VALLEY COAL
 LOCATION: WILLOW CREEK
 HOLE ID: WRH-96040
 DATE OF LOG: 09/26/96
 PROBE: 9055A 71



SCALE: 1 M/CM
 TRUE DEPTH: 29.85 M
 AZIMUTH: 227.3
 DISTANCE: 3.8 M
 + = 5 M INCR
 ○ = BOTTOM OF HOLE





Century GEOPHYSICAL CORP.

GAMMA-NEUTRON

COMPANY : PINE VALLEY COAL
 WELL : WRH-96040
 LOCATION/FIELD : WILLOW CREEK
 COUNTY :
 STATE : BRITISH COLUMBIA
 SECTION : TOWNSHIP : RANGE :

OTHER SERVICES:

DATE : 09/26/96
 DEPTH DRILLER : 30
 LOG BOTTOM : 30.33
 LOG TOP : 0.66

PERMANENT DATUM :
 ELEV. PERM. DATUM:
 LOG MEASURED FROM: G.L.
 DRL MEASURED FROM:

ELEVATIONS
 KB :
 DF :
 GL :

CASING DRILLER : 3
 CASING TYPE : STEEL
 CASING THICKNESS: .25

LOGGING UNIT : 9612
 FIELD OFFICE : CALGARY, AB.
 RECORDED BY : R. THOMAS

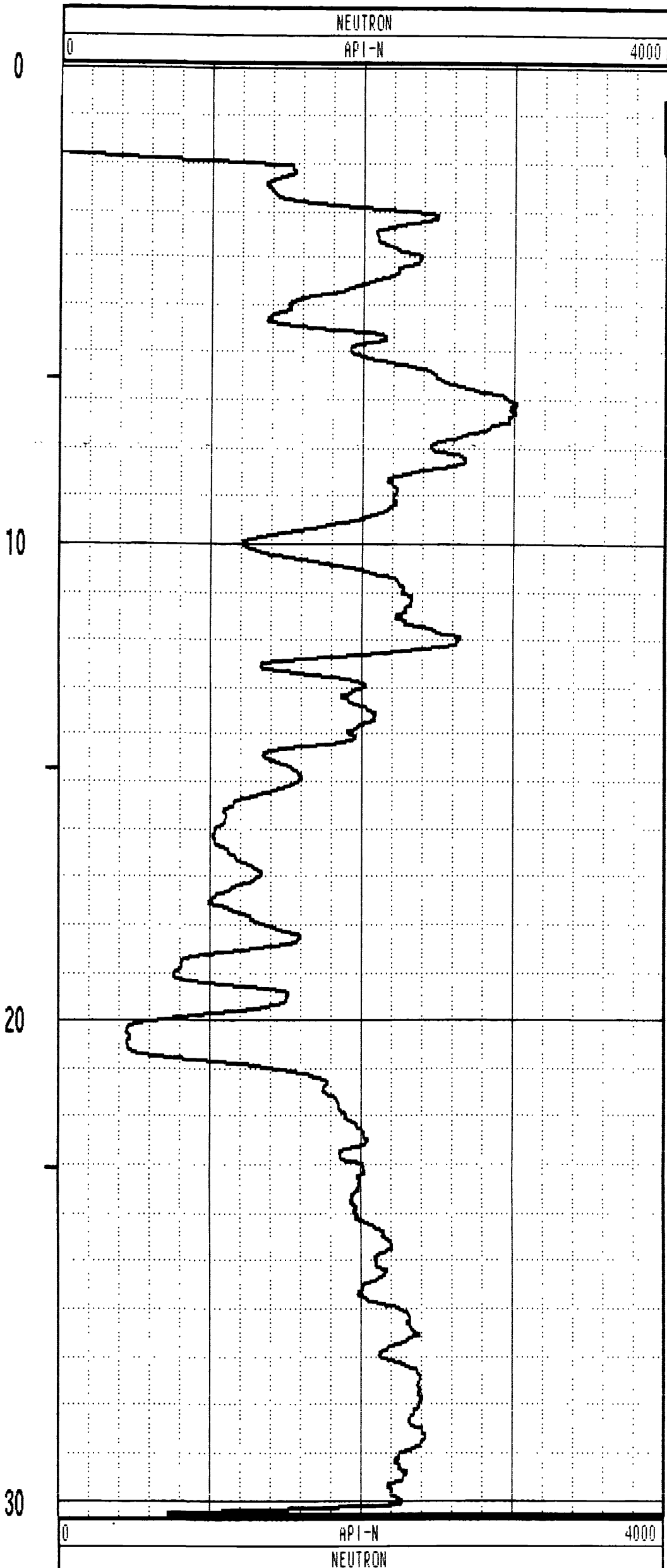
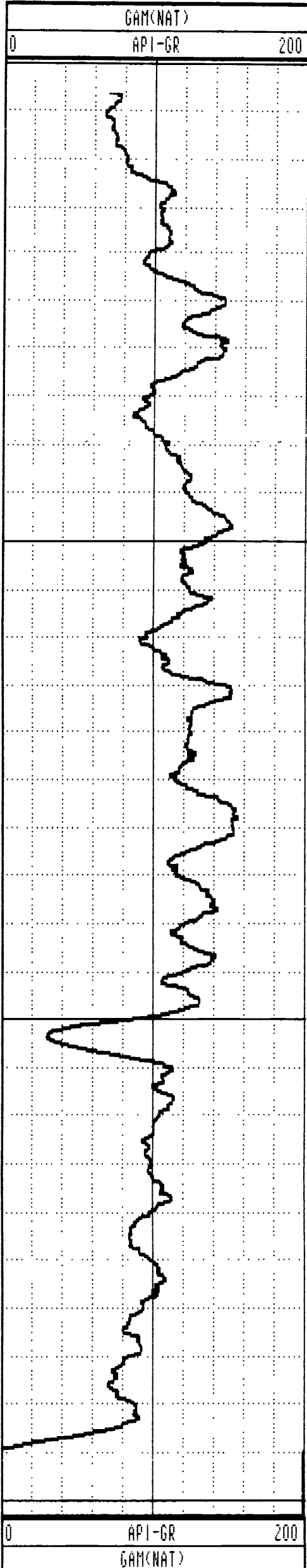
BIT SIZE :
 MAGNETIC DECL. : 23.00
 MATRIX DENSITY :
 FLUID DENSITY : 1.1
 NEUTRON MATRIX : 2.65

BOREHOLE FLUID : WATER
 RM :
 RM TEMPERATURE :
 MATRIX DELTA T :
 FLUID DELTA T :

FILE : ORIGINAL
 TYPE : 9055A
 LOG : 0
 PLOT : PINE 4
 THRESH: 10000

REMARKS :
 NONE

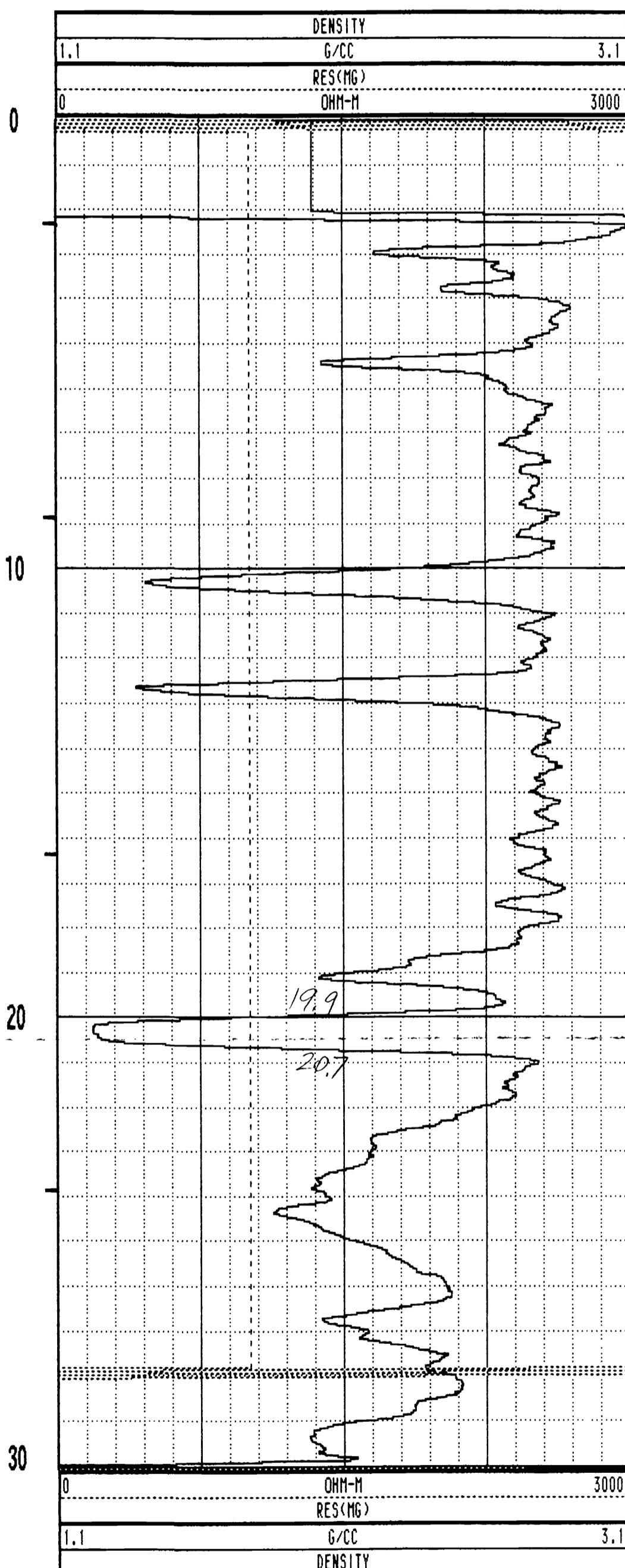
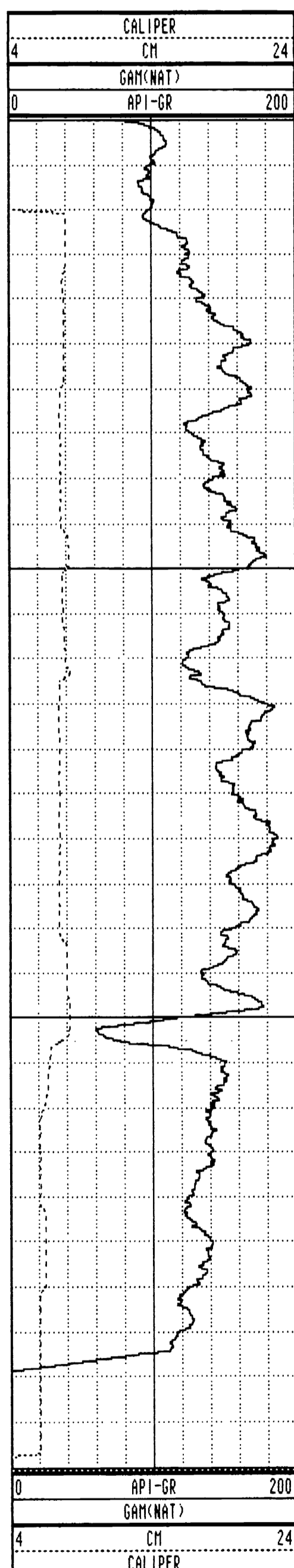
ALL SERVICES PROVIDED SUBJECT TO STANDARD TERMS AND CONDITIONS



GAMMA-RES-DENSITY

| | |
|--|------------------------|
| <p>COMPANY : PINE VALLEY COAL
 WELL : WRH-96040
 LOCATION/FIELD : WILLOW CREEK
 COUNTY :
 STATE : BRITISH COLUMBIA
 SECTION : TOWNSHIP : RANGE :</p> <p>DATE : 09/23/96 PERMANENT DATUM : ELEVATIONS
 DEPTH DRILLER : 29 ELEV. PERM. DATUM: KB :
 LOG BOTTOM : 30.09 LOG MEASURED FROM: G.L. DF :
 LOG TOP : 0.04 DRL MEASURED FROM: GL :</p> <p>CASING DRILLER : 3 LOGGING UNIT : 9612
 CASING TYPE : STEEL FIELD OFFICE : CALGARY, AB.
 CASING THICKNESS: .25 RECORDED BY : R. THOMAS</p> <p>BIT SIZE : BOREHOLE FLUID : WATER FILE : ORIGINAL
 MAGNETIC DECL. : 23.00 RM : TYPE : 9033AA
 MATRIX DENSITY : RM TEMPERATURE : LOG : 3
 FLUID DENSITY : 1.1 MATRIX DELTA T : PLOT : PINE 5
 NEUTRON MATRIX : 2.65 FLUID DELTA T : THRESH: 10000
 REMARKS :
 NONE</p> | <p>OTHER SERVICES:</p> |
|--|------------------------|

ALL SERVICES PROVIDED SUBJECT TO STANDARD TERMS AND CONDITIONS



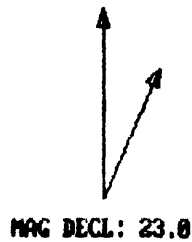
WRH-96040 09/23/96 958

TOOL CALIBRATION TOOL = 9033AA SERIAL NUMBER = 958

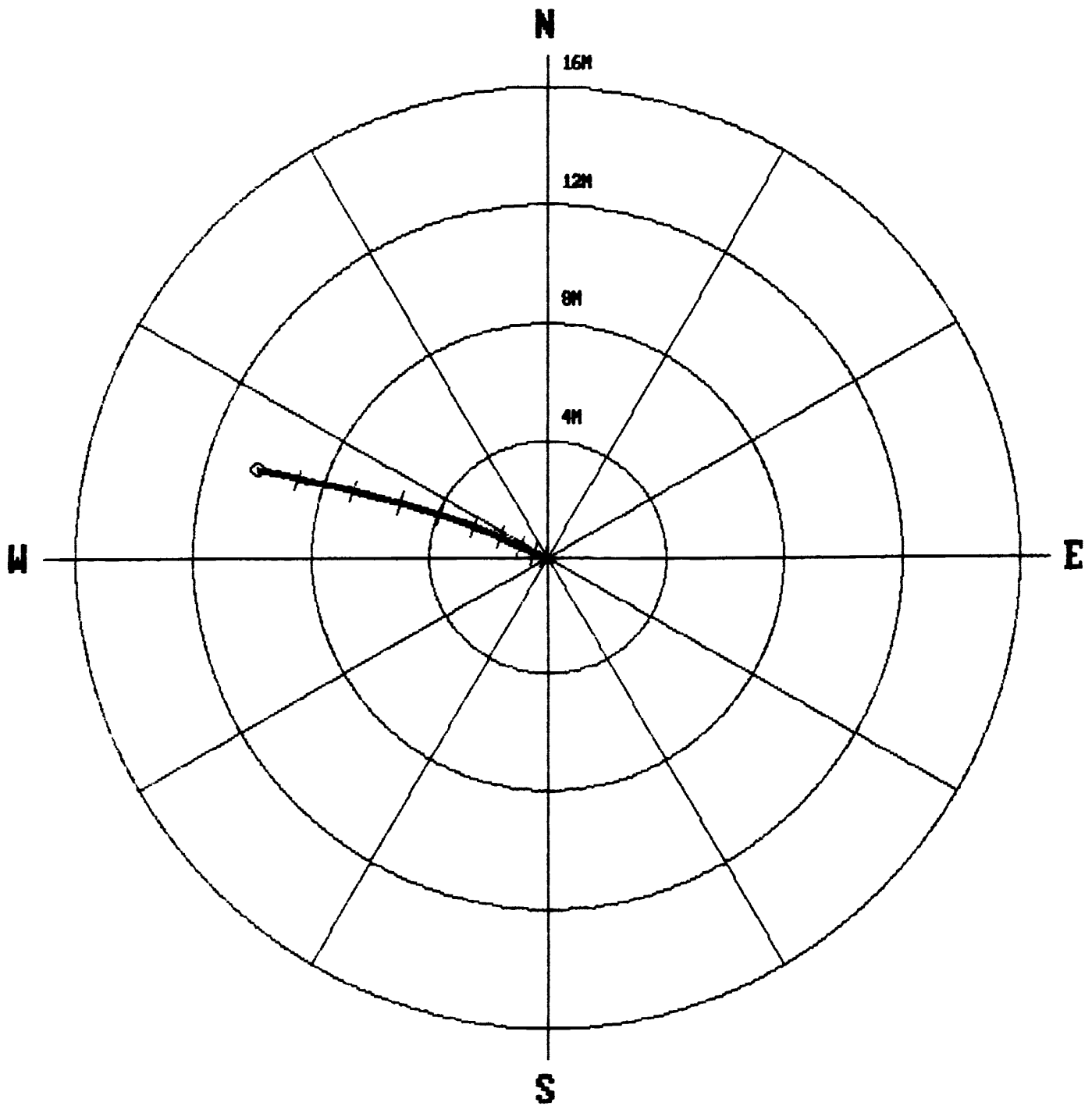
| CAL-DATE | CAL-TIME | SRCE | SENSOR | RESPONSE | STANDARD |
|----------|----------|----------|-------------|--------------|--------------|
| 0 | NOV10.95 | 15:11:22 | 0 CALIPERL | 0.000 CPS | 0.000 CM |
| 1 | NOV10.95 | 15:11:22 | 0 CALIPERL | 0.000 CPS | 0.000 CM |
| 2 | JUL19.96 | 19:42:28 | -6 GAM(NAT) | 5310.000 CPS | 1.106 API-GR |
| 3 | JUL19.96 | 19:42:28 | -6 GAM(NAT) | 2191.000 CPS | 2.199 API-GR |
| 4 | JUL20.96 | 14:31:55 | 0 DENSITY | 0.000 CPS | 0.000 G/CC |
| 5 | JUL20.96 | 14:31:55 | 0 DENSITY | 0.000 CPS | 0.000 G/CC |
| 6 | JUL18.96 | 17:53:34 | 0 RES(MG) | 0.000 CPS | 1.106 OHM-M |
| 7 | JUL18.96 | 17:53:34 | 0 RES(MG) | 0.000 CPS | 0.000 OHM-M |
| 8 | NOV13.95 | 13:41:31 | 0 CALIPER | 271.000 CPS | 7.600 CM |
| 9 | NOV13.95 | 13:41:31 | 0 CALIPER | 1880.000 CPS | 17.800 CM |
| 10 | NOV10.95 | 15:11:22 | 0 DENSITYH | 0.000 CPS | 0.000 G/CC |
| 11 | NOV10.95 | 15:11:22 | 0 DENSITYH | 0.000 CPS | 0.000 G/CC |
| 12 | NOV15.95 | 10:21:21 | 0 CALIPERL | 0.000 CPS | 5.100 CM |
| 13 | NOV15.95 | 10:21:21 | 0 CALIPERL | 2366.000 CPS | 33.000 CM |

PLAN VIEW COMPU-LOG DEVIATION

CLIENT: PINE VALLEY COAL LTD.
 LOCATION: MILLON CREEK PROJECT
 HOLE ID: WRH-96-041
 DATE OF LOG: 03/19/96
 PROBE: 9055A 58



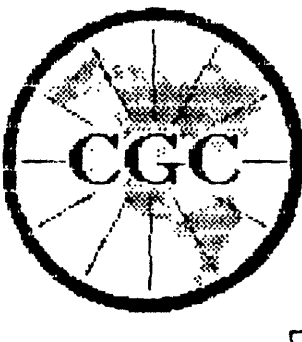
SCALE: 2 M/CM
 TRUE DEPTH: 96.05 M
 AZIMUTH: 287.1
 DISTANCE: 10.2 M
 + = 10 M INCR
 O = BOTTOM OF HOLE



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

| | | | |
|--------------|-----------------------|-------------|----------------|
| CLIENT | : PINE VALLEY COAL LT | HOLE ID. | : WRH-96-041 |
| FIELD OFFICE | : CALGARY, A.B | DATE OF LOG | : 03/19/96 |
| DATA FROM | : | PROBE | : 9055A , 58 |
| MAG. DECL. | : 23.000 | DEPTH UNITS | : METERS LOG 9 |

| CABLE DEPTH | TRUE DEPTH | NORTH DEV. | EAST DEV. | DISTANCE | AZIMUTH | SANG | SANGB |
|-------------|------------|------------|-----------|----------|---------|------|-------|
| 2.8 | 2.80 | 0.00 | -0.00 | 0.0 | 321.7 | 0.5 | 321.7 |
| 7.0 | 7.00 | 0.03 | -0.04 | 0.0 | 307.2 | 0.7 | 314.8 |
| 12.0 | 12.00 | 0.08 | -0.15 | 0.2 | 299.1 | 2.2 | 283.6 |
| 17.0 | 16.99 | 0.14 | -0.34 | 0.4 | 293.1 | 2.2 | 270.9 |
| 22.0 | 21.99 | 0.21 | -0.53 | 0.6 | 291.5 | 2.1 | 296.1 |
| 27.0 | 26.98 | 0.30 | -0.77 | 0.8 | 291.5 | 3.1 | 286.1 |
| 32.0 | 31.97 | 0.42 | -1.03 | 1.1 | 291.9 | 3.6 | 296.8 |
| 37.0 | 36.96 | 0.58 | -1.36 | 1.5 | 293.0 | 4.8 | 294.0 |
| 42.0 | 41.94 | 0.76 | -1.76 | 1.9 | 293.4 | 5.1 | 297.9 |
| 47.0 | 46.92 | 0.95 | -2.20 | 2.4 | 293.3 | 6.0 | 290.5 |
| 52.0 | 51.89 | 1.14 | -2.68 | 2.9 | 293.1 | 6.7 | 281.5 |
| 57.0 | 56.86 | 1.33 | -3.24 | 3.5 | 292.4 | 7.5 | 277.1 |
| 62.0 | 61.81 | 1.53 | -3.86 | 4.1 | 291.6 | 8.4 | 290.5 |
| 67.0 | 66.76 | 1.73 | -4.54 | 4.9 | 290.9 | 8.3 | 284.9 |
| 72.0 | 71.71 | 1.93 | -5.24 | 5.6 | 290.2 | 8.8 | 294.1 |
| 77.0 | 76.64 | 2.15 | -6.02 | 6.4 | 289.7 | 9.3 | 293.2 |
| 82.0 | 81.56 | 2.36 | -6.87 | 7.3 | 288.9 | 10.4 | 285.5 |
| 87.0 | 86.47 | 2.56 | -7.78 | 8.2 | 288.2 | 11.5 | 281.9 |
| 92.0 | 91.37 | 2.80 | -8.77 | 9.2 | 287.7 | 13.0 | 285.0 |
| 97.0 | 96.25 | 3.01 | -9.80 | 10.2 | 287.1 | 0.0 | 0.0 |
| 96.8 | 96.05 | 3.01 | -9.80 | 10.2 | 287.1 | 13.3 | 280.3 |



Century
GEOPHYSICAL CORP.

GAMMA-NEUTRON

COMPANY : PINE VALLEY COAL LTD.
WELL : WPH-96-041
LOCATION/FIELD : WILLOW CREEK PROJECT
COUNTY : PINE PASS
STATE : BRITISH COLUMBIA
SECTION : TOWNSHIP :

OTHER SERVICES:
9055
9030

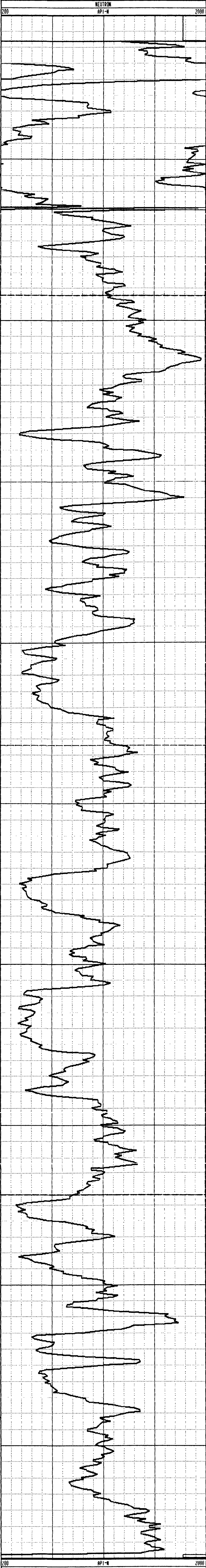
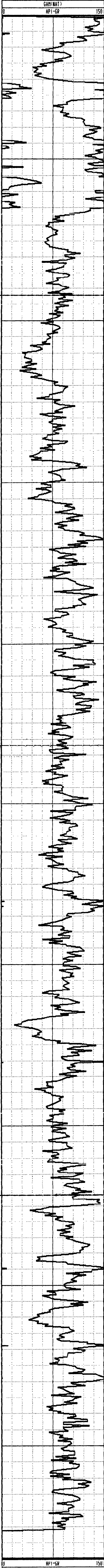
DATE : 03/19/96 PERMANENT DATUM : GROUND ELEVATIONS
DEPTH DRILLER : 98 ELEV. PERM. DATUM: GROUND KB :
LOG BOTTOM : 97.10 LOG MEASURED FROM: GL DT :
LOG TOP : 1.20 DPL MEASURED FROM: GL GL :

CASING DRILLER : 2.5 LOGGING UNIT : 9603
CASING TYPE : PVC FIELD OFFICE : CALGARY, A.B
CASING THICKNESS: 0.65 RECORDED BY : B. BOONE

BIT SIZE : 14 BOREHOLE FLUID : H2O/AIR FILE : ORIGINAL
MAGNETIC DECL. : 23 RM : TYPE : 9055A
MATRIX DENSITY : 2.65 RM TEMPERATURE : LOG : 7
FLUID DENSITY : 1.1 MATRIX DELTA T : PLOT : SMOKY 7
NEUTRON MATRIX : SANDSTONE FLUID DELTA T : THRESH: 10000

REMARKS :
OPEN HOLE
VERTICAL

ALL SERVICES PROVIDED SUBJECT TO STANDARD TERMS AND CONDITIONS



GAMMA-RES-DENSITY

COMPANY : PINE VALLEY COAL LTD.
 WELL : WRH-96-041
 LOCATION/FIELD : WILLOW CREEK PROJECT
 COUNTY : PINE PASS
 STATE : BRITISH COLUMBIA
 SECTION :

OTHER SERVICES:
 9855
 9838

TOWNSHIP : RANGE :

DATE : 03/19/96 PERMANENT DATUM : GROUND ELEVATIONS
 DEPTH DRILLER : 98 ELEV. PERM. DATUM: GROUND KB :
 LOG BOTTOM : 96.60 LOG MEASURED FROM: GL DF :
 LOG TOP : 0.30 DRL MEASURED FROM: GL GL :

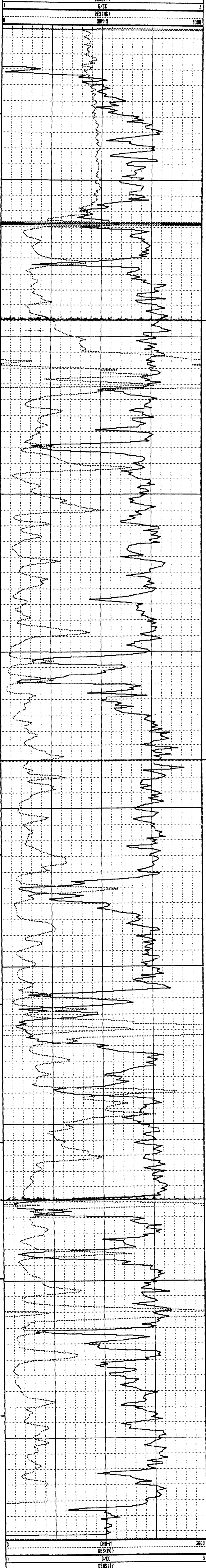
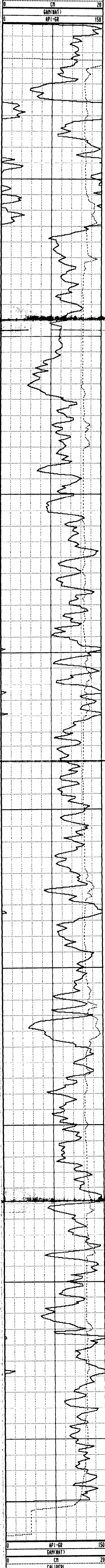
CASING DRILLER : 2.5 LOGGING UNIT : 9603
 CASING TYPE : PVC FIELD OFFICE : CALGARY, A.B
 CASING THICKNESS: 0.65 RECORDED BY : B. BOONE

BIT SIZE : 14 BOREHOLE FLUID : H2O/AIR FILE : ORIGINAL
 MAGNETIC DECL. : 23 RM TYPE : 9033AA
 MATRIX DENSITY : 2.65 RM TEMPERATURE : LOG : 8
 FLUID DENSITY : 1.1 MATRIX DELTA T : PLOT : SHOKY 3
 NEUTRON MATRIX : SANDSTONE FLUID DELTA T : THRESH: 10000

REMARKS :

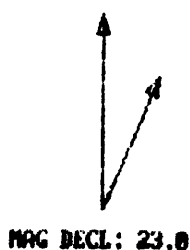
OPEN HOLE
VERTICAL

ALL SERVICES PROVIDED SUBJECT TO STANDARD TERMS AND CONDITIONS

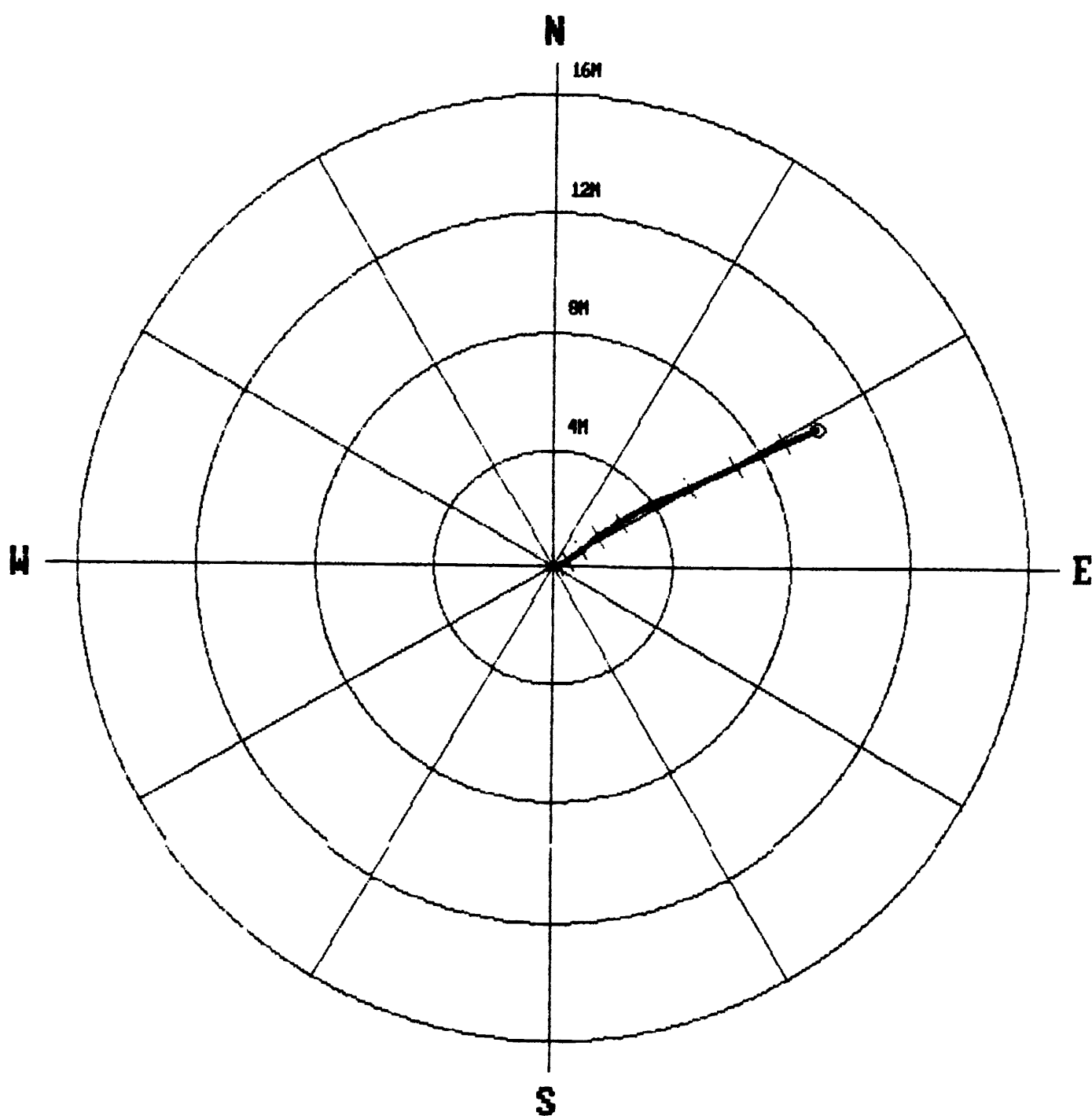


PLAN VIEW COMPU-LOG DEVIATION

CLIENT: PINE VALLEY COAL LTD.
 LOCATION: MILLON CREEK PROJECT
 HOLE ID: WRH-96-042
 DATE OF LOG: 03/22/96
 PROBE: 9055A 58



SCALE: 2 M/CM
 TRUE DEPTH: 96.00 M
 AZIMUTH: 62.0
 DISTANCE: 10.1 M
 + = 10 M INCR
 O = BOTTOM OF HOLE



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

| | |
|------------------------------|----------------------------|
| CLIENT : PINE VALLEY COAL LT | HOLE ID. : WRH-96-042 |
| FIELD OFFICE : CALGARY, A.B | DATE OF LOG : 03/22/96 |
| DATA FROM : | PROBE : 9055A , 58 |
| MAG. DECL. : 23.000 | DEPTH UNITS : METERS LOG 3 |

| CABLE DEPTH | TRUE DEPTH | NORTH DEV. | EAST DEV. | DISTANCE | AZIMUTH | SANG | SANGB |
|-------------|------------|------------|-----------|----------|---------|------|-------|
| 2.7 | 2.70 | -0.00 | 0.00 | 0.0 | 93.2 | 0.8 | 93.2 |
| 7.0 | 7.00 | 0.00 | 0.08 | 0.1 | 88.7 | 1.7 | 83.0 |
| 12.0 | 12.00 | 0.04 | 0.22 | 0.2 | 80.2 | 1.5 | 77.8 |
| 17.0 | 16.99 | 0.10 | 0.37 | 0.4 | 74.2 | 2.6 | 67.2 |
| 22.0 | 21.99 | 0.25 | 0.58 | 0.6 | 66.5 | 3.6 | 50.2 |
| 27.0 | 26.98 | 0.44 | 0.83 | 0.9 | 62.0 | 4.2 | 50.5 |
| 32.0 | 31.97 | 0.62 | 1.09 | 1.3 | 60.4 | 3.2 | 46.2 |
| 37.0 | 36.96 | 0.83 | 1.31 | 1.6 | 57.6 | 4.1 | 48.8 |
| 42.0 | 41.94 | 1.10 | 1.65 | 2.0 | 56.4 | 5.6 | 52.2 |
| 47.0 | 46.92 | 1.37 | 2.03 | 2.5 | 55.9 | 5.4 | 57.3 |
| 52.0 | 51.89 | 1.66 | 2.48 | 3.0 | 56.3 | 6.3 | 57.6 |
| 57.0 | 56.85 | 1.97 | 3.00 | 3.6 | 56.7 | 6.9 | 59.5 |
| 62.0 | 61.81 | 2.26 | 3.55 | 4.2 | 57.6 | 7.3 | 59.0 |
| 67.0 | 66.76 | 2.55 | 4.18 | 4.9 | 58.6 | 8.4 | 63.7 |
| 72.0 | 71.70 | 2.89 | 4.87 | 5.7 | 59.4 | 9.5 | 61.5 |
| 77.0 | 76.63 | 3.25 | 5.63 | 6.5 | 60.0 | 10.1 | 66.0 |
| 82.0 | 81.56 | 3.61 | 6.40 | 7.3 | 60.6 | 9.9 | 67.1 |
| 87.0 | 86.48 | 3.99 | 7.21 | 8.2 | 61.1 | 9.9 | 64.9 |
| 92.0 | 91.39 | 4.37 | 8.06 | 9.2 | 61.5 | 10.8 | 66.2 |
| 97.0 | 96.10 | 4.73 | 8.88 | 10.1 | 62.0 | 0.0 | 0.0 |
| 96.7 | 96.00 | 4.73 | 8.88 | 10.1 | 62.0 | 11.2 | 68.1 |

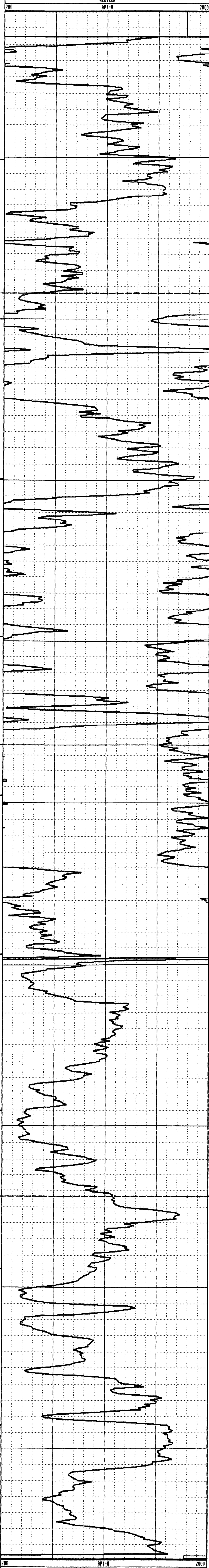
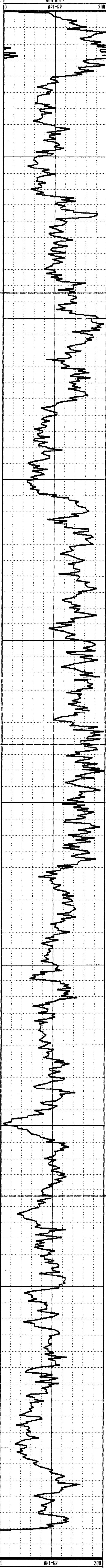


GAMMA-NEUTRON

| | | | |
|------------------|---------------------------|-------------------|---------------------------|
| COMPANY | : PINE VALLEY COAL LTD. | OTHER SERVICES: | |
| WELL | : WRH-96-042 | 9055 | |
| LOCATION/FIELD | : WILLOW CREEK PROJECT | 9030 | |
| COUNTY | : PINE PASS | | |
| STATE | : BRITISH COLUMBIA | | |
| SECTION | : TOWNSHIP | RANGE | : |
| DATE | : 03/22/96 | PERMANENT DATUM | : GROUND ELEVATIONS |
| DEPTH DRILLER | : 98 | ELEV. PERM. DATUM | : GROUND KB |
| LOG BOTTOM | : 97.00 | LOG MEASURED FROM | : GL DF |
| LOG TOP | : 1.10 | DRL MEASURED FROM | : GL GL |
| CASING DRILLER | : 2 | LOGGING UNIT | : 9603 |
| CASING TYPE | : PVC | FIELD OFFICE | : CALGARY, A.B |
| CASING THICKNESS | : 0.65 | RECORDED BY | : B. BOONE |
| BIT SIZE | : 14 | BOREHOLE FLUID | : H2O/AIR FILE : ORIGINAL |
| MAGNETIC DECL. | : 23 | RM | : TYPE : 9055A |
| MATRIX DENSITY | : 2.65 | RM TEMPERATURE | : LOG : 2 |
| FLUID DENSITY | : 1.1 | MATRIX DELTA T | : PLOT : SMOKY 7 |
| NEUTRON MATRIX | : SANDSTONE FLUID DELTA T | | : THRESH: 10000 |

REMARKS
OPEN HOLE
VERTICAL

ALL SERVICES PROVIDED SUBJECT TO STANDARD TERMS AND CONDITIONS



GAMMA-RES-DENSITY

COMPANY : PINE VALLEY COAL LTD.
 WELL : WRH-96-042
 LOCATION/FIELD : WILLOW CREEK PROJECT
 COUNTY : PINE PASS
 STATE : BRITISH COLUMBIA
 SECTION : TOWNSHIP : RANGE :

OTHER SERVICES:
 9055
 9030

DATE : 03/22/96 PERMANENT DATUM : GROUND ELEVATIONS
 DEPTH DRILLER : 98 ELEV. PERM. DATUM: GROUND KB :
 LOG BOTTOM : 97.30 LOG MEASURED FROM: GL DF :
 LOG TOP : 0.60 DRL MEASURED FROM: GL GL :

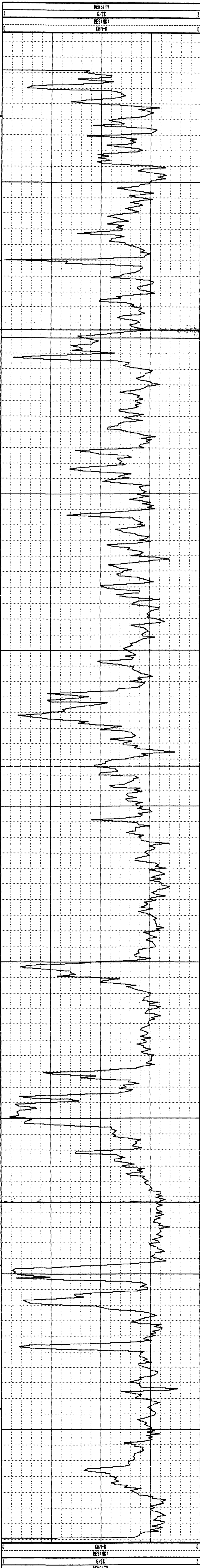
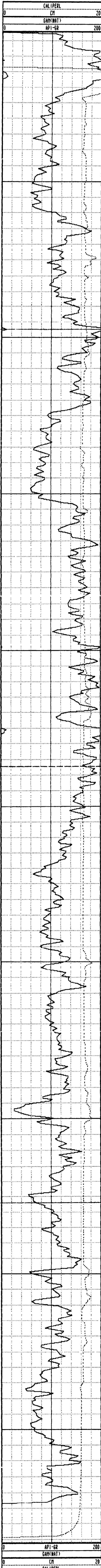
CASING DRILLER : 2 LOGGING UNIT : 9603
 CASING TYPE : PVC FIELD OFFICE : CALGARY, A.B
 CASING THICKNESS: 0.65 RECORDED BY : B. BOONE

BIT SIZE : 14 BOREHOLE FLUID : H2O/AIR FILE : ORIGINAL
 MAGNETIC DECL. : 23 RM TYPE : 9033AA
 MATRIX DENSITY : 2.65 RM TEMPERATURE : LOG : 4
 FLUID DENSITY : 1.1 MATRIX DELTA T : PLOT : SHOKY 3
 NEUTRON MATRIX : SANDSTONE FLUID DELTA T : THRESH: 10000

REMARKS :

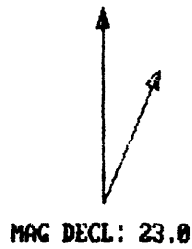
OPEN HOLE
VERTICAL

ALL SERVICES PROVIDED SUBJECT TO STANDARD TERMS AND CONDITIONS

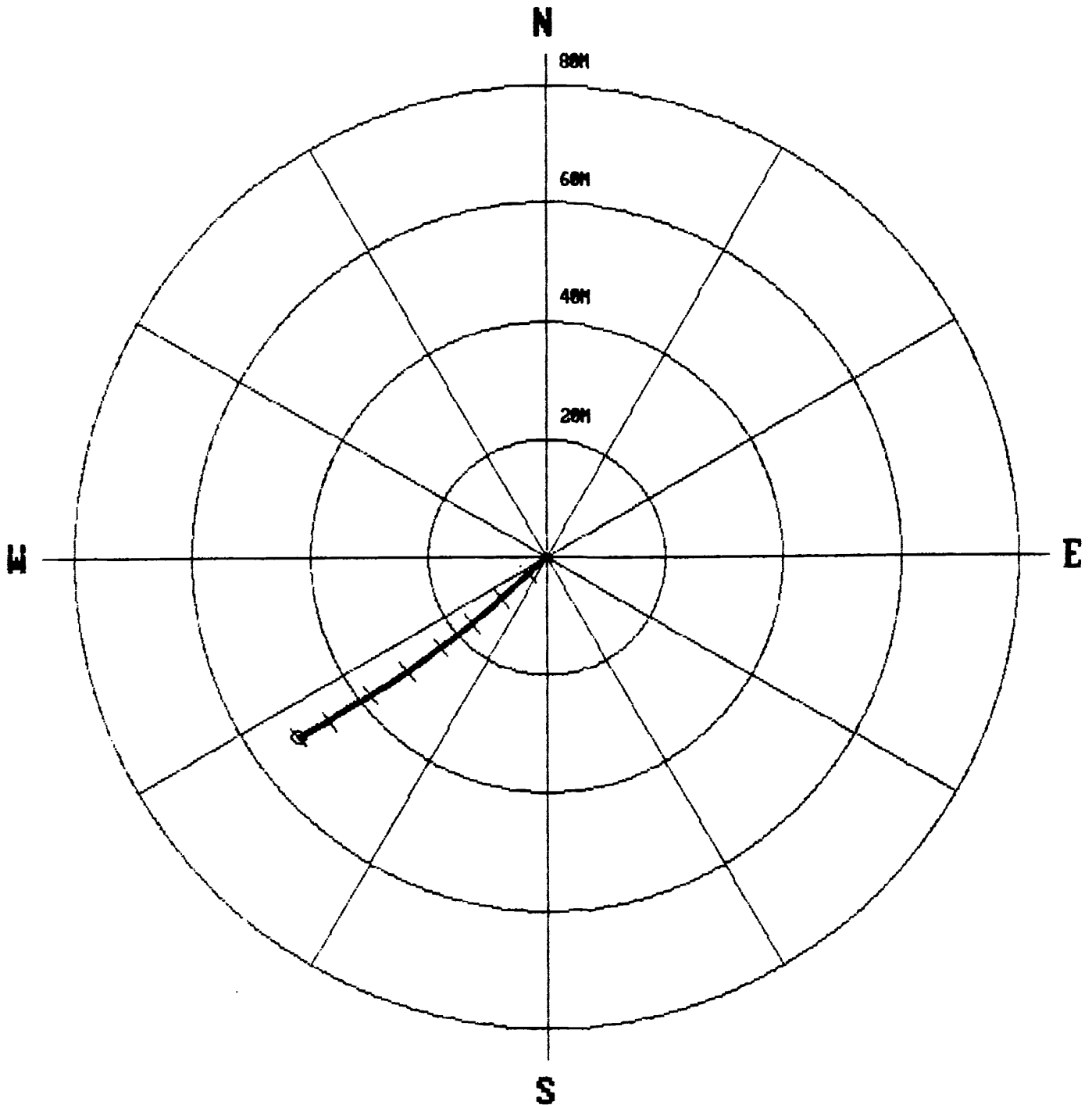


PLAN VIEW COMPU-LOG DEVIATION

CLIENT: PINE VALLEY COAL LTD.
 LOCATION: WILLOW CREEK PROJECT
 HOLE ID: WRH-96-043
 DATE OF LOG: 03/23/96
 PROBE: 9055A 58



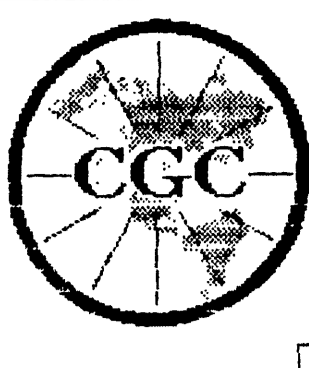
SCALE: 10 M/CM
 TRUE DEPTH: 76.57 M
 AZIMUTH: 234.1
 DISTANCE: 51.9 M
 + = 10 M INCR
 O = BOTTOM OF HOLE



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

| | |
|------------------------------|----------------------------|
| CLIENT : PINE VALLEY COAL LT | HOLE ID. : WRH-96-043 |
| FIELD OFFICE : CALGARY, A.B | DATE OF LOG : 03/23/96 |
| DATA FROM : | PROBE : 9055A 58 |
| MAG. DECL. : 23.000 | DEPTH UNITS : METERS LOG 0 |

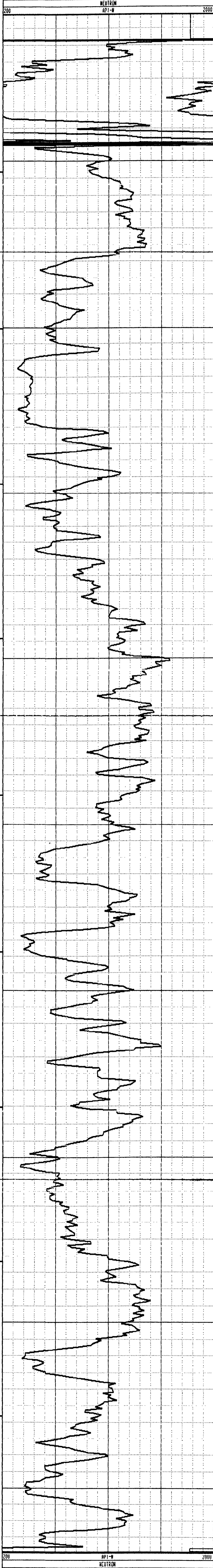
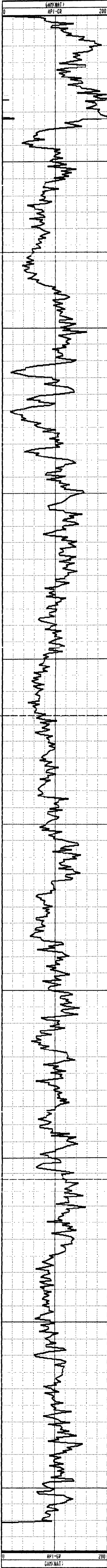
| CABLE DEPTH | TRUE DEPTH | NORTH DEV. | EAST DEV. | DISTANCE | AZIMUTH | SANG | SANGB |
|-------------|------------|------------|-----------|----------|---------|------|-------|
| 2.9 | 2.89 | -0.02 | -0.05 | 0.1 | 246.8 | 30.5 | 246.8 |
| 7.0 | 6.40 | -1.45 | -1.60 | 2.2 | 227.8 | 31.5 | 228.7 |
| 12.0 | 10.65 | -3.09 | -3.38 | 4.6 | 227.6 | 30.1 | 227.1 |
| 17.0 | 14.91 | -4.75 | -5.25 | 7.1 | 227.8 | 32.2 | 227.3 |
| 22.0 | 19.14 | -6.50 | -7.23 | 9.7 | 228.0 | 32.4 | 229.7 |
| 27.0 | 23.35 | -8.28 | -9.25 | 12.4 | 228.2 | 33.1 | 228.8 |
| 32.0 | 27.53 | -10.06 | -11.31 | 15.1 | 228.4 | 33.8 | 232.4 |
| 37.0 | 31.67 | -11.81 | -13.48 | 17.9 | 228.8 | 33.8 | 231.5 |
| 42.0 | 35.82 | -13.52 | -15.68 | 20.7 | 229.2 | 34.1 | 235.6 |
| 47.0 | 39.96 | -15.16 | -17.93 | 23.5 | 229.8 | 34.4 | 234.1 |
| 52.0 | 44.08 | -16.85 | -20.19 | 26.3 | 230.1 | 35.1 | 233.2 |
| 57.0 | 48.17 | -18.54 | -22.50 | 29.2 | 230.5 | 35.1 | 230.7 |
| 62.0 | 52.23 | -20.20 | -24.90 | 32.1 | 230.9 | 36.8 | 240.5 |
| 67.0 | 56.23 | -21.83 | -27.41 | 35.0 | 231.5 | 37.9 | 237.0 |
| 72.0 | 60.17 | -23.43 | -30.03 | 38.1 | 232.0 | 38.2 | 230.9 |
| 77.0 | 64.05 | -24.90 | -32.79 | 41.2 | 232.8 | 40.1 | 244.7 |
| 82.0 | 67.86 | -26.55 | -35.42 | 44.3 | 233.1 | 39.9 | 227.9 |
| 87.0 | 71.62 | -28.31 | -38.09 | 47.5 | 233.4 | 41.9 | 241.6 |
| 92.0 | 75.32 | -29.88 | -41.03 | 50.8 | 233.9 | 42.6 | 235.9 |
| 93.7 | 76.57 | -30.44 | -42.05 | 51.9 | 234.1 | 43.2 | 242.0 |



Century
GEOPHYSICAL CORP.

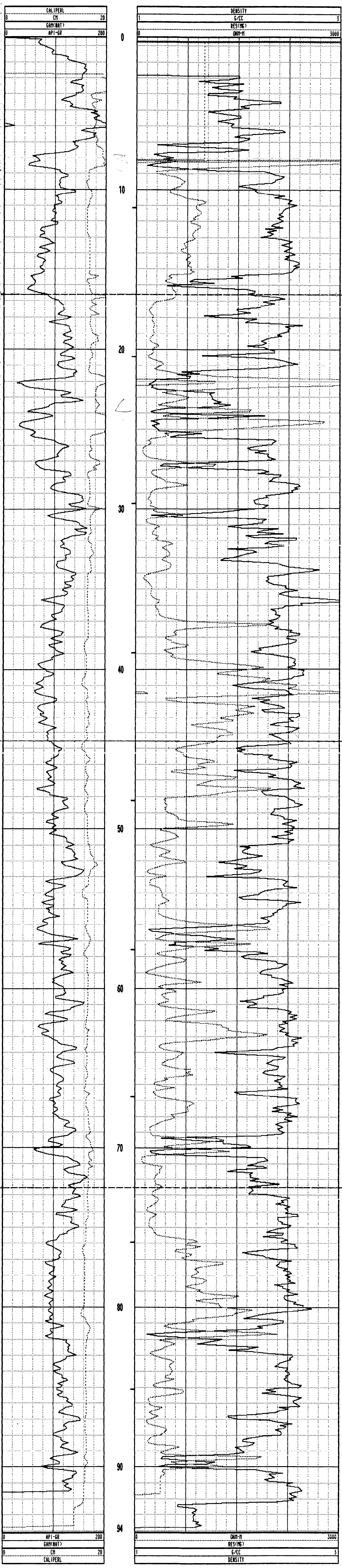
GAMMA-NEUTRON

| | | | |
|--|---------------------------|--------------------|---------------------------|
| COMPANY | : PINE VALLEY COAL LTD. | OTHER SERVICES: | |
| WELL | : WRH-96-043 | 9055 | |
| LOCATION/FIELD | : WILLOW CREEK PROJECT | 9030 | |
| COUNTY | : PINE PASS | | |
| STATE | : BRITISH COLUMBIA | | |
| SECTION | : TOWNSHIP | RANGE | : |
| DATE | : 03/23/96 | PERMANENT DATUM | : GROUND ELEVATIONS |
| DEPTH DRILLER | : 96 | ELEV. PERM. DATUM | : GROUND KB |
| LOG BOTTOM | : 94.00 | LOG MEASURED FROM: | GL DF |
| LOG TOP | : 1.30 | DRL MEASURED FROM: | GL GL |
| CASING DRILLER | : 4 | LOGGING UNIT | : 9603 |
| CASING TYPE | : PVC | FIELD OFFICE | : CALGARY, A.B |
| CASING THICKNESS: | 0.65 | RECORDED BY | : B. BOONE |
| BIT SIZE | : 14 | BOREHOLE FLUID | : H2O/AIR FILE : ORIGINAL |
| MAGNETIC DECL. | : 23 | RM | : TYPE : 9055A |
| MATRIX DENSITY | : 2.65 | RM TEMPERATURE | : LOG : 5 |
| FLUID DENSITY | : 1.1 | MATRIX DELTA T | : PLOT : SMOKY 7 |
| NEUTRON MATRIX | : SANDSTONE FLUID DELTA T | | : THRESH: 10000 |
| REMARKS | : | | |
| OPEN HOLE | | | |
| HOLE DEVIATED TO 60 DEG. | | | |
| ALL SERVICES PROVIDED SUBJECT TO STANDARD TERMS AND CONDITIONS | | | |



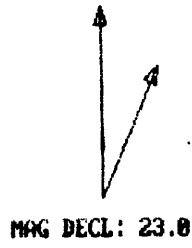
GAMMA-RES-DENSITY

| | | |
|--|-------------------------|--|
| COMPANY | : PINE VALLEY COAL LTD. | OTHER SERVICES:
9855
9838 |
| W.F.I. | : WPH-96-043 | |
| LOCATION/FIELD | : WILLOW CREEK PROJECT | |
| COUNTY | : PINE PASS | |
| STATE | : BRITISH COLUMBIA | |
| SECTION | : TOWNSHIP | : RANGE : |
| DATE | : 03/23/96 | PERMANENT DATUM : GROUND ELEVATIONS |
| DEPTH DRILLER | : 96 | ELEV. PERM. DATUM: GROUND KB : |
| LOG BOTTOM | : 94.20 | LOG MEASURED FROM: GL DF : |
| LOG TOP | : 8.60 | DRL MEASURED FROM: GL GL : |
| CASING DRILLER | : 4 | LOGGING UNIT : 9603 |
| CASING TYPE | : PUC | FIELD OFFICE : CALGARY, A.B |
| CASING THICKNESS | : 0.65 | RECORDED BY : B. BOONE |
| BIT SIZE | : 14 | BOREHOLE FLUID : H2O/AIR FILE : ORIGINAL |
| MAGNETIC DECL. | : 23 | RM : TYPE : 9833AA |
| MATRIX DENSITY | : 2.65 | RM TEMPERATURE : LOG : 6 |
| FLUID DENSITY | : 1.1 | MATRIX DELTA T : PLOT : SMOKY 3 |
| NEUTRON MATRIX | : SANDSTONE | FLUID DELTA T : THRESH: 10000 |
| REMARKS | : | |
| OPEN HOLE | : | |
| HOLE DEVIATED TO 60 DEG. | | |
| ALL SERVICES PROVIDED SUBJECT TO STANDARD TERMS AND CONDITIONS | | |

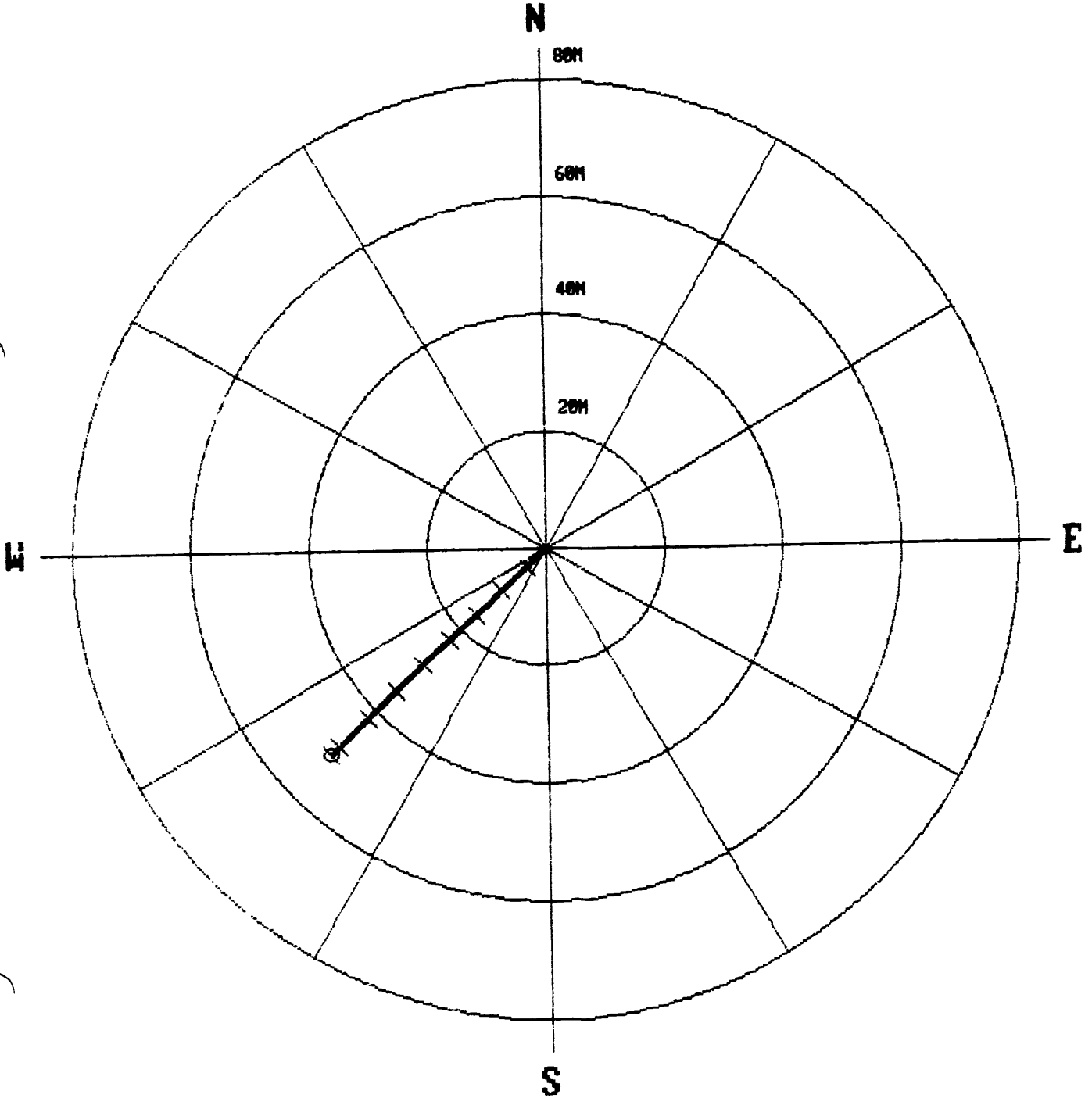


PLAN VIEW COMPU-LOG DEVIATION

CLIENT: PINE VALLEY COAL LTD.
 LOCATION: WILLOW CREEK PROJECT
 HOLE ID: WRH-96-044
 DATE OF LOG: 03/24/96
 PROBE: 9055A 58



SCALE: 10 M/CM
 TRUE DEPTH: 82.72 M
 AZIMUTH: 226.5
 DISTANCE: 50.5 M
 + = 10 M INCR
 O = BOTTOM OF HOLE



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

| | | | |
|--------------|-----------------------|-------------|----------------|
| CLIENT | : PINE VALLEY COAL LT | HOLE ID. | : WRH-96-044 |
| FIELD OFFICE | : CALGARY, A.B | DATE OF LOG | : 03/24/96 |
| DATA FROM | : | PROBE | : 9055A , 58 |
| MAG. DECL. | : 23.000 | DEPTH UNITS | : METERS LOG 4 |

| CABLE DEPTH | TRUE DEPTH | NORTH DEV. | EAST DEV. | DISTANCE | AZIMUTH | SANG | SANGB |
|-------------|------------|------------|-----------|----------|---------|------|-------|
| 2.7 | 2.69 | -0.04 | -0.03 | 0.1 | 222.4 | 31.1 | 222.4 |
| 7.0 | 6.37 | -1.58 | -1.63 | 2.3 | 225.8 | 31.5 | 228.2 |
| 12.0 | 10.65 | -3.37 | -3.47 | 4.8 | 225.9 | 31.4 | 225.9 |
| 17.0 | 14.94 | -5.14 | -5.33 | 7.4 | 226.1 | 30.9 | 229.2 |
| 22.0 | 19.25 | -6.85 | -7.19 | 9.9 | 226.4 | 30.6 | 227.3 |
| 27.0 | 23.56 | -8.62 | -8.95 | 12.4 | 226.1 | 30.6 | 214.2 |
| 32.0 | 27.89 | -10.35 | -10.81 | 15.0 | 226.2 | 30.1 | 228.3 |
| 37.0 | 32.17 | -12.07 | -12.72 | 17.5 | 226.5 | 31.1 | 230.5 |
| 42.0 | 36.42 | -13.87 | -14.63 | 20.2 | 226.5 | 32.2 | 227.7 |
| 47.0 | 40.65 | -15.65 | -16.61 | 22.8 | 226.7 | 33.1 | 252.1 |
| 52.0 | 44.88 | -17.41 | -18.59 | 25.5 | 226.9 | 32.5 | 229.6 |
| 57.0 | 49.11 | -19.22 | -20.55 | 28.1 | 226.9 | 32.2 | 227.5 |
| 62.0 | 53.36 | -21.04 | -22.46 | 30.8 | 226.9 | 32.2 | 226.7 |
| 67.0 | 57.58 | -22.85 | -24.43 | 33.5 | 226.9 | 31.4 | 235.5 |
| 72.0 | 61.79 | -24.73 | -26.35 | 36.1 | 226.8 | 33.4 | 226.8 |
| 77.0 | 65.98 | -26.56 | -28.35 | 38.8 | 226.9 | 31.5 | 238.8 |
| 82.0 | 70.10 | -28.53 | -30.36 | 41.7 | 226.8 | 34.8 | 232.9 |
| 87.0 | 74.18 | -30.53 | -32.44 | 44.5 | 226.7 | 34.8 | 225.9 |
| 92.0 | 78.28 | -32.50 | -34.49 | 47.4 | 226.7 | 34.5 | 226.9 |
| 97.0 | 82.39 | -34.54 | -36.47 | 50.2 | 226.6 | 35.3 | 224.3 |
| 97.4 | 82.72 | -34.70 | -36.63 | 50.5 | 226.5 | 35.3 | 224.3 |



Century
GEOPHYSICAL CORP.

GAMMA-NEUTRON

COMPANY : PINE VALLEY COAL LTD.
WFTL : WRH-96-044
LOCATION/FIELD : WILLOW CREEK PROJECT
COUNTY : PINE PASS
STATE : BRITISH COLUMBIA
SECTION : TOWNSHIP :

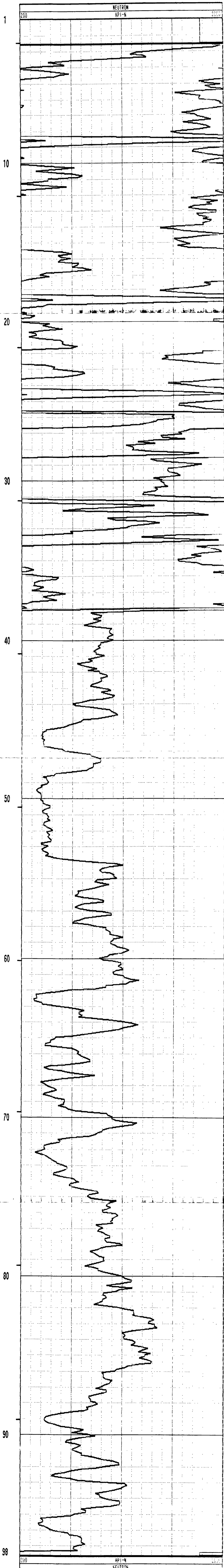
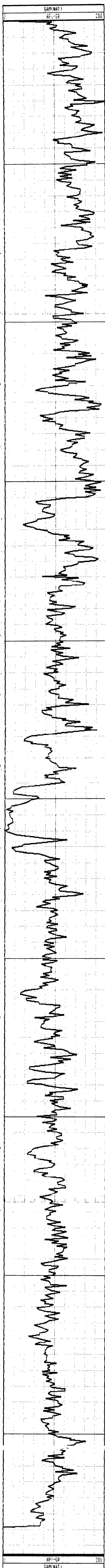
OTHER SERVICES:
9055
9030

DEPTH DRILLER : 98
LOG BOTTOM : 97.70
LOG TOP : 1.10
ELEV. PERM. DATUM : GROUND
LOG MEASURED FROM : GL
DRL MEASURED FROM : GL
ELEVATIONS : KB :
DF :
CL :

CASING DRILLER : 3
CASING TYPE : PVC
CASING THICKNESS : 0.65
LOGGING UNIT : 9603
FIELD OFFICE : CALGARY, A.B.
RECORDED BY : B. DOONE

BIT SIZE : 14
MAGNETIC DECL. : 23
MATRIX DENSITY : 2.65
FLUID DENSITY : 1.1
NEUTRON MATRIX : SANDSTONE
BORHOLE FLUID : 420/AIP
RM :
RM TEMPERATURE :
MATRIX DELTA T :
FILE : ORIGINAL
TYPE : 9055A
LOG : 3
PLOT : SMOKY 7
THRESH : 10000

REMARKS :
OPEN HOLE
HOLE DEVIATED TO 60 DEG.
ALL SERVICES PROVIDED SUBJECT TO STANDARD TERMS AND CONDITIONS



GAMMA-RES-DENSITY

COMPANY : PINE VALLEY COAL LTD.
 WELL : WRH-96-044
 LOCATION/FIELD : WILLOW CREEK PROJECT
 COUNTY : PINE PASS
 STATE : BRITISH COLUMBIA
 SECTION : TOWNSHIP : RANGE :

OTHER SERVICES:
 9055
 9030

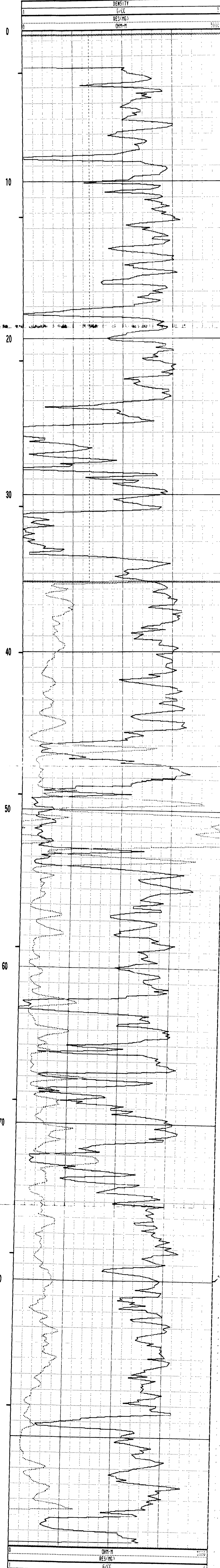
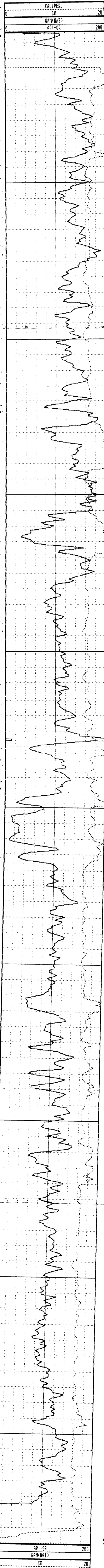
DATE : 03/24/96 PERMANENT DATUM : GROUND ELEVATIONS
 DEPTH DRILLER : 98 ELEV. PERM. DATUM: GROUND KB :
 LOG BOTTOM : 97.10 LOG MEASURED FROM: GL DF :
 LOG TOP : 0.50 DRL MEASURED FROM: GL GL :

CASING DRILLER : 3 LOGGING UNIT : 9603
 CASING TYPE : PVC FIELD OFFICE : CALGARY, A.B
 CASING THICKNESS: 0.65 RECORDED BY : D. BOONE

BIT SIZE : 14 BORFHOLE FLUID : H2O/AIR FILF : ORIGINAL
 MAGNETIC DECL. : 23 RM : TYPE : 9033AA
 MATRIX DENSITY : 2.65 RM TEMPERATURE : LOG : 5
 FLUID DENSITY : 1.1 MATRIX DELTA T : PLOT : SMOKY 3
 NEUTRON MATRIX : SANDSTONE FLUID DELTA T : THRESH: 10000

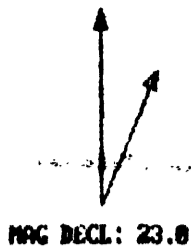
REMARKS :
 OPEN HOLE
 HOLE DEVIATED TO 60 DEG.

ALL SERVICES PROVIDED SUBJECT TO STANDARD TERMS AND CONDITIONS

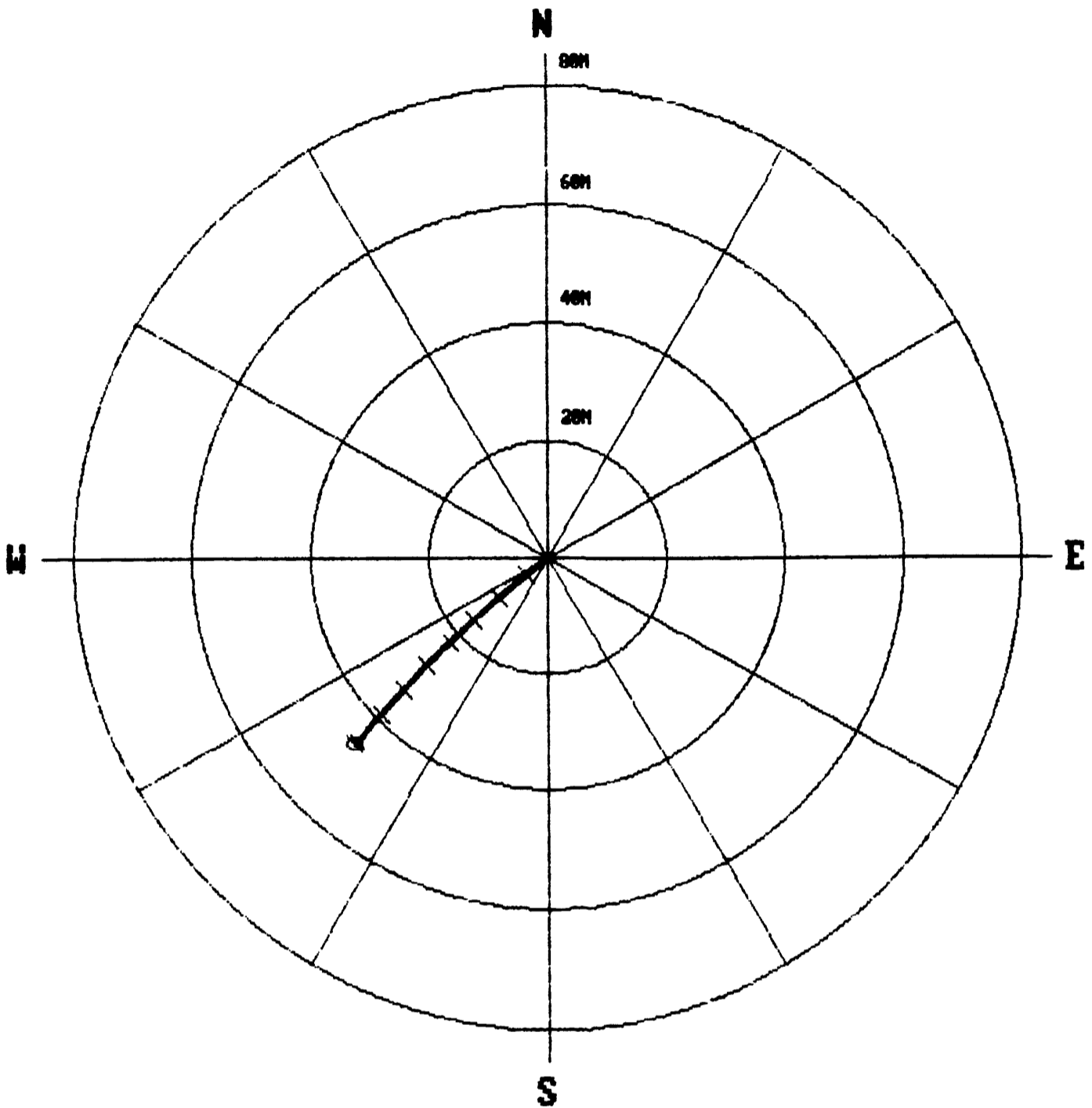


PLAN VIEW COMPU-LOG DEVIATION

CLIENT: PINE VALLEY COAL LTD.
 LOCATION: MILLUM CREEK PROJECT
 HOLE ID: WRH-96-045
 DATE OF LOG: 03/26/96
 PROBE: 9055A 58



SCALE: 10 MCM
 TRUE DEPTH: 80.57 M
 AZIMUTH: 225.8
 DISTANCE: 45.5 M
 + = 10 M INCR
 O = BOTTOM OF HOLE



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

| | | | |
|--------------|-----------------------|-------------|----------------|
| CLIENT | : PINE VALLEY COAL LT | HOLE ID. | : WRH-96-045 |
| FIELD OFFICE | : CALGARY, A.B | DATE OF LOG | : 03/26/96 |
| DATA FROM | : | PROBE | : 9055A 58 |
| MAG. DECL. | : 23.000 | DEPTH UNITS | : METERS LUG 6 |

| TABLE DEPTH | TRUE DEPTH | NORTH DEV. | EAST DEV. | DISTANCE | AZIMUTH | SANG | SANGB |
|-------------|------------|------------|-----------|----------|---------|------|-------|
| 2.7 | 2.69 | -0.03 | -0.04 | 0.1 | 237.9 | 31.0 | 237.9 |
| 7.0 | 6.33 | -1.49 | -1.77 | 2.3 | 230.0 | 32.0 | 233.9 |
| 12.0 | 10.59 | -3.11 | -3.82 | 4.9 | 230.8 | 31.3 | 228.1 |
| 17.0 | 14.87 | -4.74 | -5.84 | 7.5 | 231.0 | 30.9 | 229.2 |
| 22.0 | 19.18 | -6.35 | -7.79 | 10.1 | 230.8 | 30.3 | 227.2 |
| 27.0 | 23.51 | -8.02 | -9.65 | 12.5 | 230.3 | 29.9 | 229.4 |
| 32.0 | 27.85 | -9.71 | -11.45 | 15.0 | 229.7 | 29.9 | 228.3 |
| 37.0 | 32.19 | -11.41 | -13.26 | 17.5 | 229.3 | 29.2 | 227.4 |
| 42.0 | 36.55 | -13.11 | -15.01 | 19.9 | 228.9 | 29.4 | 221.5 |
| 47.0 | 40.92 | -14.76 | -16.80 | 22.4 | 228.7 | 29.9 | 224.2 |
| 52.0 | 45.27 | -16.50 | -18.52 | 24.8 | 228.3 | 30.6 | 226.4 |
| 57.0 | 49.61 | -18.19 | -20.27 | 27.2 | 228.1 | 30.3 | 217.2 |
| 62.0 | 53.93 | -19.95 | -21.93 | 29.6 | 227.7 | 31.1 | 219.9 |
| 67.0 | 58.27 | -21.71 | -23.56 | 32.0 | 227.3 | 30.2 | 222.1 |
| 72.0 | 62.62 | -23.55 | -25.19 | 34.5 | 226.9 | 29.7 | 222.6 |
| 77.0 | 66.93 | -25.38 | -26.91 | 37.0 | 226.7 | 32.1 | 222.3 |
| 82.0 | 71.17 | -27.21 | -28.62 | 39.5 | 226.4 | 34.8 | 225.7 |
| 87.0 | 75.34 | -29.18 | -30.32 | 42.1 | 226.1 | 33.1 | 200.9 |
| 92.0 | 79.50 | -31.25 | -32.04 | 44.8 | 225.7 | 34.0 | 240.9 |
| 93.3 | 80.57 | -31.71 | -32.59 | 45.5 | 225.8 | 33.5 | 226.9 |



Century
GEOPHYSICAL CORP.

GAMMA-NEUTRON

COMPANY : PINE VALLEY COAL LTD.
WELL : WPH-96-045
LOCATION/FIELD : WILLUM CREEK PROJECT
COUNTY : PINE PASS
STATE : BRITISH COLUMBIA
SECTION : TOWNSHIP : RANGE :

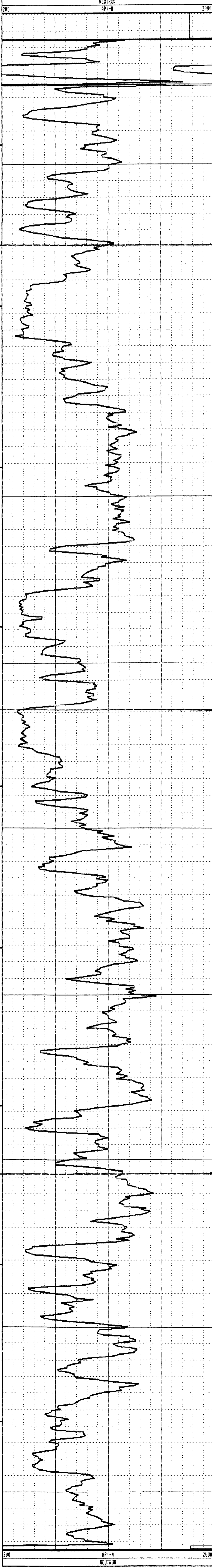
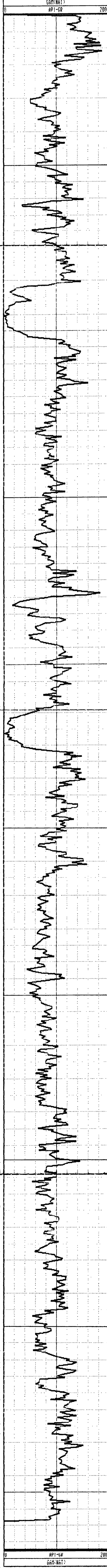
OTHER SERVICES:
9055
9030

DATE : 03/26/96 PERMANENT DATUM : GROUND ELEVATIONS
DEPTH DRILLER : 98 ELEV. PERM. DATUM: GROUND KB :
LOG BOTTOM : 93.60 LOG MEASURED FROM: GL DF :
LOG TOP : 1.10 DRL MEASURED FROM: GL GL :

CASING DRILLER : 3 LOGGING UNIT : 9603
CASING TYPE : PVC FIELD OFFICE : CALGARY, A.B
CASING THICKNESS: 0.65 RECORDED BY : B. BOONE

BIT SIZE : 14 BOREHOLE FLUID : H2O/AIR FILE : ORIGINAL
MAGNETIC DECL. : 23 RM TYPE : 9055A
MATRIX DENSITY : 2.65 RM TEMPERATURE : LOG : 4
FLUID DENSITY : 1.1 MATRIX DELTA T : PLGT : SMOXY 7
NEUTRON MATRIX : SANDSTONE FLUID DELTA T : THRESH: 10000
REMARKS :

OPEN HULL
HOLE DEVIATED TO 60 DEG.
ALL SERVICES PROVIDED SUBJECT TO STANDARD TERMS AND CONDITIONS



96-45

GAMMA-RES-DENSITY

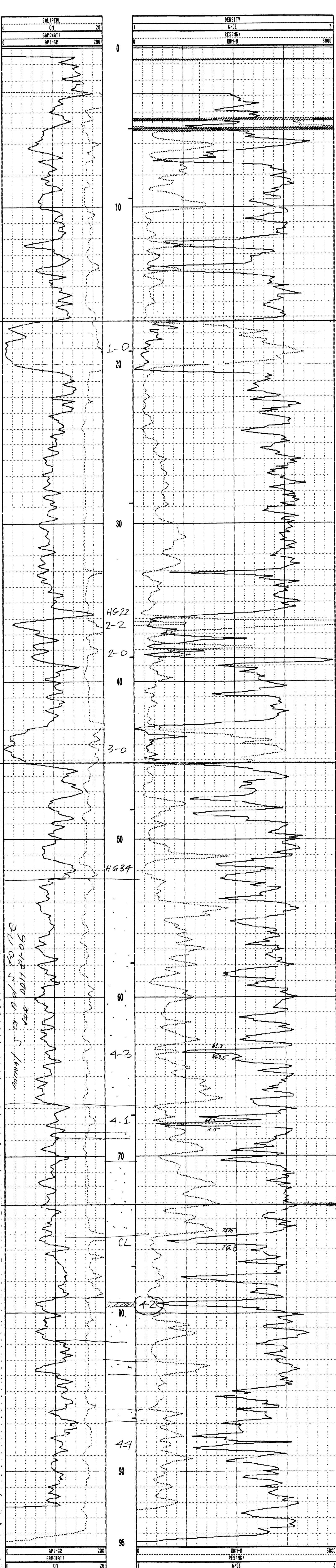
| | |
|---------------------------------------|-----------------|
| COMPANY : PINE VALLEY COAL LTD. | OTHER SERVICES: |
| WFTI : WPH-96-045 | 9055 |
| LOCATION/FIELD : WILLOW CREEK PROJECT | 9030 |
| COUNTY : PINE PASS | |
| STATE : BRITISH COLUMBIA | |
| SECTION : TOWNSHIP : | RANGE : |

| | | |
|--------------------|---------------------------|------------|
| DATE : 03/26/96 | PERMANENT DATUM : GROUND | ELEVATIONS |
| DEPTH DRILLER : 98 | ELEV. PERM. DATUM: GROUND | KB : |
| LOG BOTTOM : 94.90 | LOG MEASURED FROM: GL | DF : |
| LOG TOP : 0.60 | DRL MEASURED FROM: GL | GL : |

| | |
|------------------------|-----------------------------|
| CASING DRILLER : 3 | LOGGING UNIT : 9603 |
| CASING TYPE : PVC | FIELD OFFICE : CALGARY, A.B |
| CASING THICKNESS: 0.65 | RECORDED BY : B. BOONE |

| | | |
|----------------------------|--------------------------|-----------------|
| BIT SIZE : 14 | BORFHOLE FLUID : H2O/ATR | FILE : ORIGINAL |
| MAGNETIC DECL. : 23 | RM : | TYPE : 9033AA |
| MATRIX DENSITY : 2.65 | RM TEMPERATURE : | LOG : 8 |
| FLUID DENSITY : 1.1 | MATRIX DELTA T : | PLOT : SMOXY 3 |
| NEUTRON MATRIX : SANDSTONE | FLUID DELTA T : | THRESH: 10000 |
| RFMAPVS : | | |

OPEN HOLE
HOLE DEVIATED TO 60 DEG.
ALL SERVICES PROVIDED SUBJECT TO STANDARD TERMS AND CONDITIONS

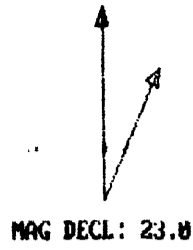


WPH-96-045 03/26/96 958

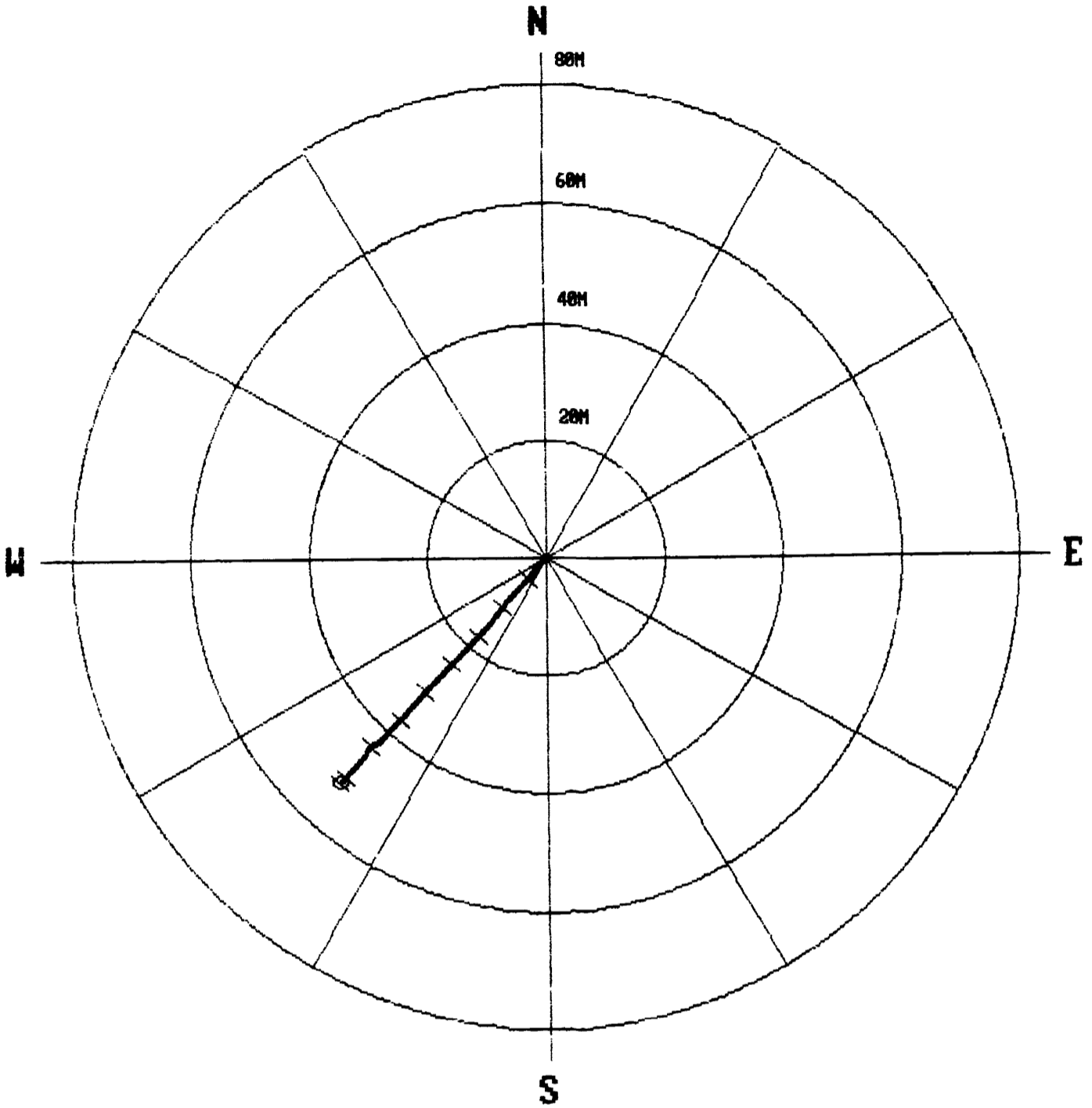
96-45

PLAN VIEW COMPU-LOG DEVIATION

CLIENT: PINE VALLEY COAL LTD.
 LOCATION: WILLOW CREEK PROJECT
 HOLE ID: WRH-96-046
 DATE OF LOG: 03/26/96
 PROBE: 9055A 58



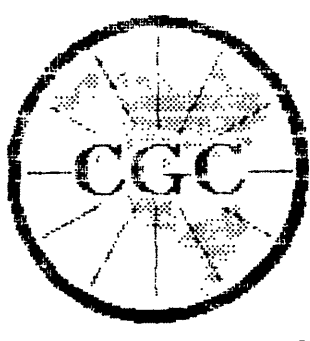
SCALE: 10 M/CM
 TRUE DEPTH: 81.88 M
 AZIMUTH: 222.8
 DISTANCE: 51.6 M
 + = 10 M INCR
 O = BOTTOM OF HOLE



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

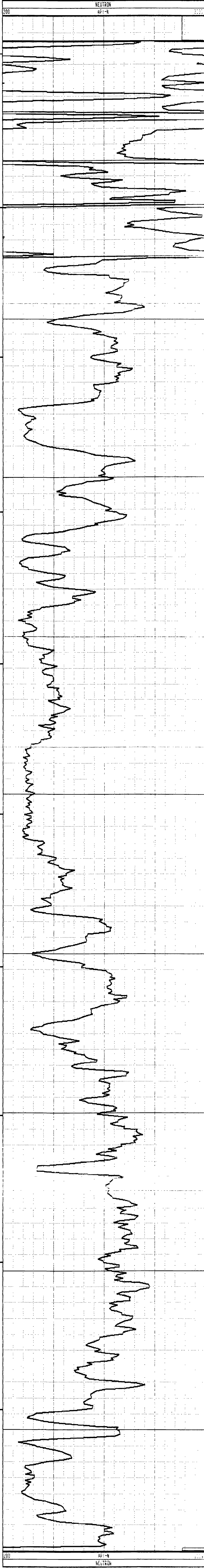
| | |
|------------------------------|----------------------------|
| CLIENT : PINE VALLEY COAL LT | HOLE ID. : WRH-96-046 |
| FIELD OFFICE : CALGARY, A.B | DATE OF LOG : 03/26/96 |
| DATA FROM : | PROBE : 9055A , 58 |
| MAG. DECL. : 23.000 | DEPTH UNITS : METERS LOG 1 |

| CABLE DEPTH | TRUE DEPTH | NORTH DEV. | EAST DEV. | DISTANCE | AZIMUTH | SANG | SANGB |
|-------------|------------|------------|-----------|----------|---------|------|-------|
| 2.7 | 2.68 | -0.04 | -0.03 | 0.1 | 219.8 | 32.4 | 219.8 |
| 7.0 | 6.32 | -1.79 | -1.51 | 2.3 | 220.2 | 32.4 | 219.0 |
| 12.0 | 10.53 | -3.82 | -3.30 | 5.0 | 220.9 | 33.1 | 223.7 |
| 17.0 | 14.72 | -5.80 | -5.17 | 7.8 | 221.7 | 33.1 | 223.1 |
| 22.0 | 18.91 | -7.76 | -7.05 | 10.5 | 222.2 | 33.5 | 223.2 |
| 27.0 | 23.12 | -9.89 | -8.65 | 13.1 | 221.2 | 32.6 | 218.6 |
| 32.0 | 27.29 | -11.87 | -10.21 | 15.7 | 220.7 | 33.9 | 223.5 |
| 37.0 | 31.45 | -13.88 | -12.12 | 18.4 | 221.1 | 33.6 | 221.1 |
| 42.0 | 35.62 | -15.88 | -14.02 | 21.2 | 221.4 | 33.3 | 223.7 |
| 47.0 | 39.79 | -17.85 | -15.93 | 23.9 | 221.7 | 33.1 | 224.1 |
| 52.0 | 43.97 | -19.80 | -17.82 | 26.6 | 222.0 | 32.7 | 224.2 |
| 57.0 | 48.20 | -21.74 | -19.69 | 29.3 | 222.2 | 32.5 | 223.6 |
| 62.0 | 52.44 | -23.67 | -21.51 | 32.0 | 222.3 | 32.6 | 222.7 |
| 67.0 | 56.66 | -25.65 | -23.29 | 34.7 | 222.2 | 32.0 | 213.5 |
| 72.0 | 60.83 | -27.69 | -25.16 | 37.4 | 222.3 | 33.6 | 221.6 |
| 77.0 | 64.99 | -29.70 | -27.06 | 40.2 | 222.3 | 33.9 | 218.4 |
| 82.0 | 69.06 | -31.45 | -29.29 | 43.0 | 223.0 | 37.6 | 250.8 |
| 87.0 | 73.24 | -33.53 | -31.00 | 45.7 | 222.8 | 34.4 | 217.1 |
| 92.0 | 77.35 | -35.64 | -32.92 | 48.5 | 222.7 | 34.1 | 222.8 |
| 97.0 | 81.47 | -37.72 | -34.83 | 51.3 | 222.7 | 35.5 | 226.2 |
| 97.5 | 81.88 | -37.91 | -35.05 | 51.6 | 222.8 | 36.0 | 229.5 |



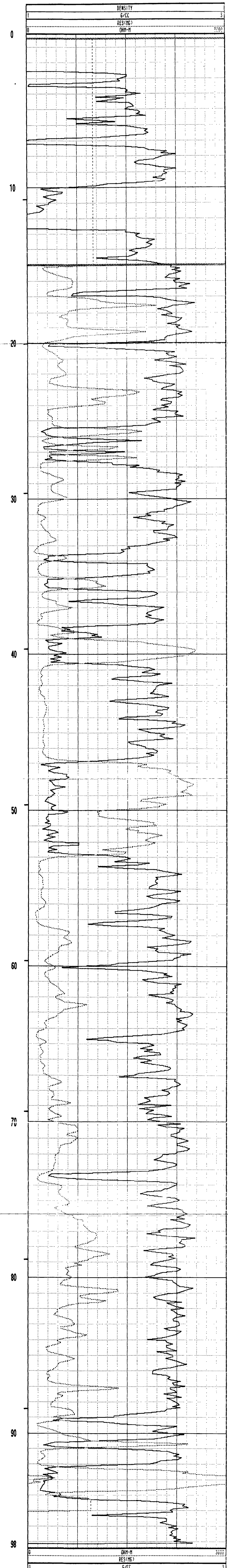
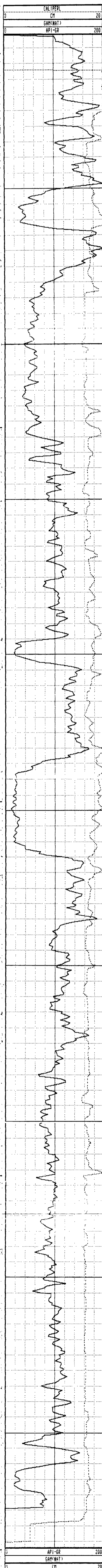
GAMMA-NEUTRON

| | | | |
|--|-------------------------|--------------------|---------------------------|
| COMPANY | : PINE VALLEY COAL LTD. | OTHER SERVICES: | |
| WELL | : WRH-96-046 | 9055 | |
| LOCATION/FIELD | : WILLOW CREEK PROJECT | 9030 | |
| COUNTY | : PINE PASS | | |
| STATE | : BRITISH COLUMBIA | | |
| SECTION | : TOWNSHIP | RANGE | : |
| DATE | : 03/26/96 | PERMANENT DATUM | : GROUND ELEVATIONS |
| DEPTH DRILLER | : 98 | ELEV. PERM. DATUM: | GROUND KB : |
| LOG BOTTOM | : 97.00 | LOG MEASURED FROM: | GL DT : |
| LOG TOP | : 1.10 | DPL MEASURED FROM: | GL GL : |
| CASING DRILLER | : 3 | LOGGING UNIT | : 9603 |
| CASING TYPE | : PVC | FIELD OFFICE | : CALGARY, A.B |
| CASING THICKNESS: | 0.65 | RECORDED BY | : D. BOONE |
| BIT SIZE | : 14 | BOREHOLE FLUID | : H2O/AIR FILF : ORIGINAL |
| MAGNETIC DECL. | : 23 | RM | : TYPE : 9055A |
| MATRIX DENSITY | : 2.65 | RM TEMPERATURE | : LOG : 0 |
| FLUID DENSITY | : 1.1 | MATRIX DELTA T | : PLOT : SMOKY 7 |
| NEUTRON MATRIX | : SANDSTONE | FLUID DELTA T | : THRESH: 10000 |
| REMARKS | : | | |
| OPEN HOLE | | | |
| HOLE DEVIATED TO 60 DEG. | | | |
| ALL SERVICES PROVIDED SUBJECT TO STANDARD TERMS AND CONDITIONS | | | |



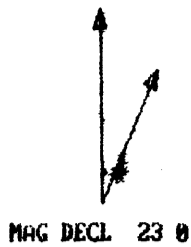
GAMMA-RES-DENSITY

| | | | | |
|--|-------------------------|-------------------|----------------|------------|
| COMPANY | : PINE VALLEY COAL LTD. | OTHER SERVICES: | | |
| WELL | : WRH-96-046 | 9055 | | |
| LOCATION/FIELD | : WILLOW CREEK PROJECT | 9030 | | |
| COUNTY | : PINE PASS | | | |
| STATE | : BRITISH COLUMBIA | | | |
| SECTION | : TOWNSHIP | : RANGE | | |
| DATE | : 03/26/96 | PERMANENT DATUM | : GROUND | ELEVATIONS |
| DEPTH DRILLER | : 98 | ELEV. PERM. DATUM | : GROUND | KB |
| LOG BOTTOM | : 97.50 | LOG MEASURED FROM | : GL | DF |
| LOG TOP | : 0.30 | DRL MEASURED FROM | : GL | GL |
| CASING DRILLER | : 3 | LOGGING UNIT | : 9603 | |
| CASING TYPE | : PVC | FIELD OFFICE | : CALGARY, A.B | |
| CASING THICKNESS | : 0.65 | RECORDED BY | : B. BOONE | |
| BIT SIZE | : 14 | BORFHOLE FLUID | : H2O/AIR | FILE |
| MAGNETIC DECL. | : 23 | RM | : | : ORIGINAL |
| MATRIX DENSITY | : 2.65 | RM TEMPERATURE | : | : 9033AA |
| FLUID DENSITY | : 1.1 | MATRIX DELTA T | : | LOG |
| NEUTRON MATRIX | : SANDSTONE | FLUID DELTA T | : | : 2 |
| REMARKS | : | | | PLOT |
| OPEN HOLE | : | | | : SMOKY 3 |
| | | | | THRESH |
| | | | | : 10000 |
| HOLE DEVIATED TO 60 DEG. | | | | |
| ALL SERVICES PROVIDED SUBJECT TO STANDARD TERMS AND CONDITIONS | | | | |

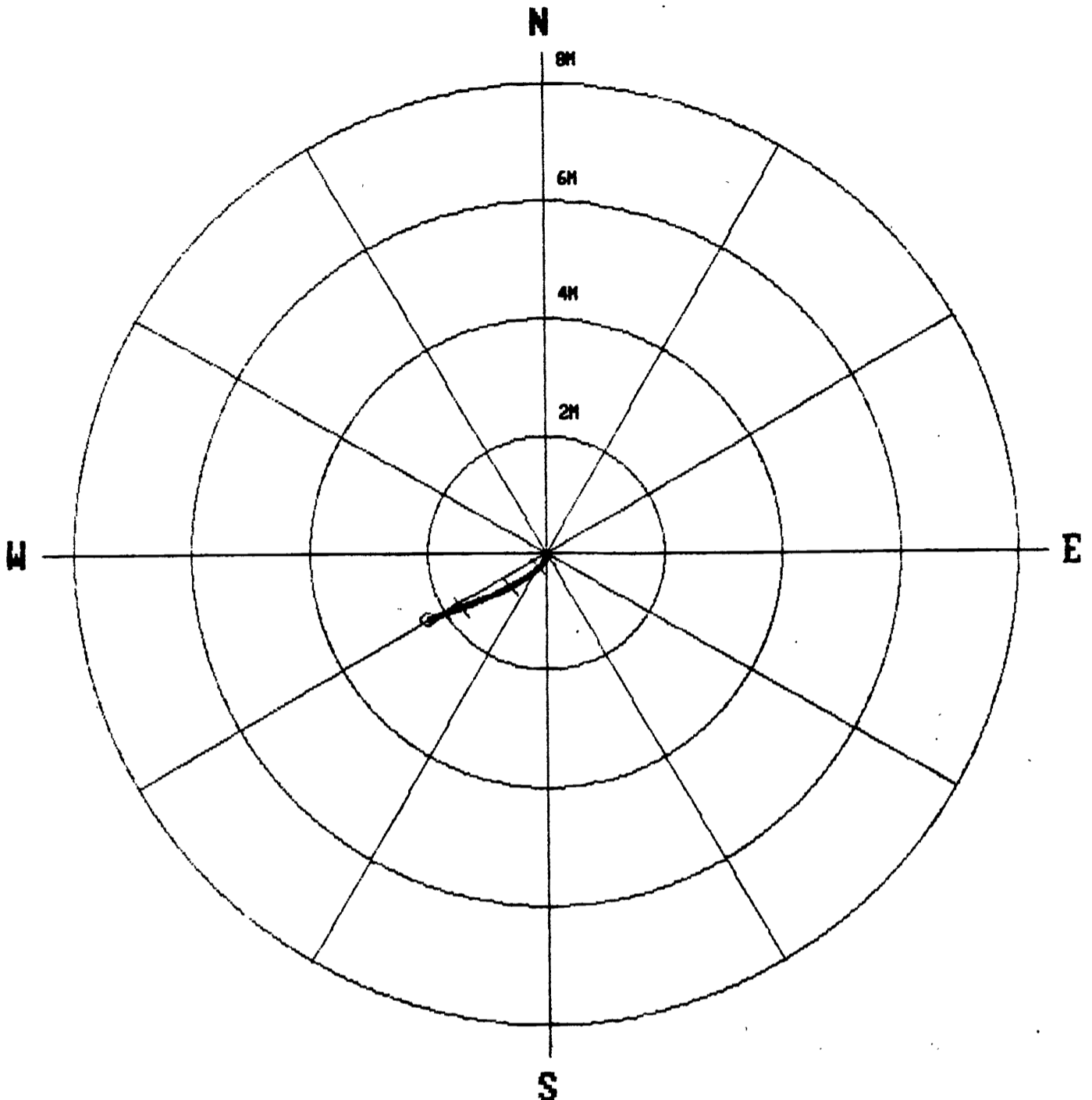


PLAN VIEW COMPU-LOG DEVIATION

CLIENT: PINE VALLEY COAL LTD.
 LOCATION: WILLOW CREEK PROJECT
 HOLE ID: WRH-96-047
 DATE OF LOG: 03/27/96
 PROBE 9055A 58



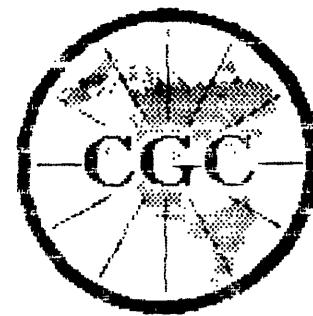
SCALE 1 M/CM
 TRUE DEPTH 44.59 M
 AZIMUTH 240.2
 DISTANCE 2.3 M
 + 10 M INCR
 ○ BOTTOM OF HOLE



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

| | |
|------------------------------|----------------------------|
| CLIENT : PINE VALLEY COAL LT | HOLE ID. : WRH-96-047 |
| FIELD OFFICE : CALGARY, A.B | DATE OF LOG : 03/27/96 |
| DATA FROM : | PROBE : 9055A , 58 |
| MAG. DECL. : 23.000 | DEPTH UNITS : METERS LOG 8 |

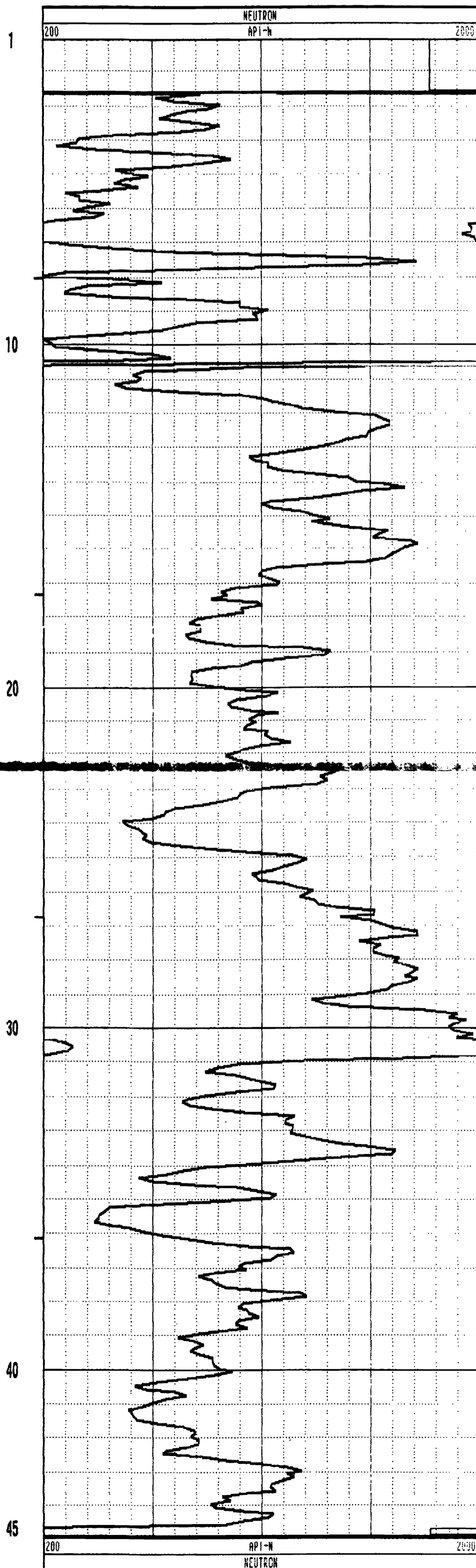
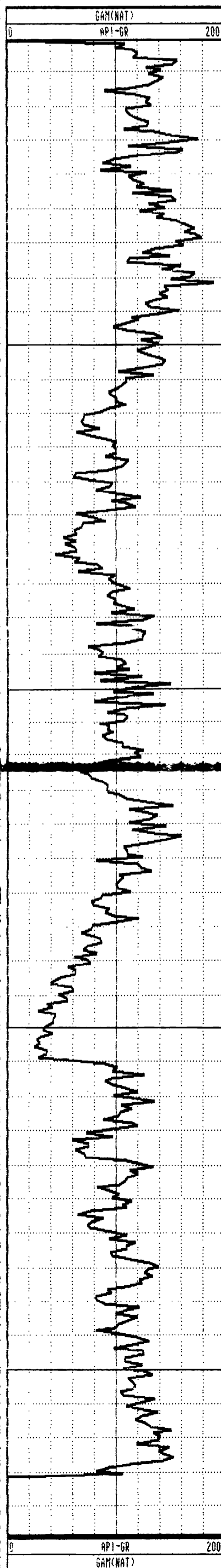
| TABLE DEPTH | TRUE DEPTH | NORTH DEV. | EAST DEV. | DISTANCE | AZIMUTH | SANG | SANGB |
|-------------|------------|------------|-----------|----------|---------|------|-------|
| 2.8 | 2.80 | -0.00 | 0.00 | 0.0 | 118.9 | 2.7 | 118.9 |
| 4.0 | 4.00 | -0.02 | 0.03 | 0.0 | 127.5 | 0.9 | 152.9 |
| 6.0 | 6.00 | -0.04 | 0.03 | 0.1 | 136.3 | 0.7 | 205.3 |
| 8.0 | 8.00 | -0.05 | 0.03 | 0.1 | 147.3 | 0.8 | 181.3 |
| 10.0 | 10.00 | -0.07 | 0.04 | 0.1 | 153.0 | 0.5 | 187.1 |
| 12.0 | 12.00 | -0.09 | 0.02 | 0.1 | 165.3 | 1.1 | 221.5 |
| 14.0 | 14.00 | -0.13 | 0.01 | 0.1 | 177.0 | 1.0 | 198.7 |
| 16.0 | 16.00 | -0.16 | -0.02 | 0.2 | 187.8 | 1.8 | 209.0 |
| 18.0 | 18.00 | -0.20 | -0.06 | 0.2 | 196.7 | 1.9 | 224.0 |
| 20.0 | 20.00 | -0.25 | -0.11 | 0.3 | 204.1 | 2.4 | 229.5 |
| 22.0 | 21.99 | -0.31 | -0.18 | 0.4 | 210.4 | 2.8 | 230.9 |
| 24.0 | 23.99 | -0.37 | -0.26 | 0.4 | 215.1 | 2.7 | 240.0 |
| 26.0 | 25.99 | -0.43 | -0.35 | 0.6 | 219.6 | 3.6 | 241.7 |
| 28.0 | 27.98 | -0.50 | -0.47 | 0.7 | 223.2 | 4.0 | 229.1 |
| 30.0 | 29.98 | -0.57 | -0.60 | 0.8 | 226.5 | 4.5 | 242.1 |
| 32.0 | 31.97 | -0.64 | -0.74 | 1.0 | 229.1 | 4.4 | 250.1 |
| 34.0 | 33.97 | -0.71 | -0.89 | 1.1 | 231.2 | 4.8 | 245.0 |
| 36.0 | 35.96 | -0.78 | -1.04 | 1.3 | 233.1 | 5.0 | 245.1 |
| 38.0 | 37.95 | -0.85 | -1.22 | 1.5 | 235.2 | 6.2 | 268.2 |
| 40.0 | 39.93 | -0.93 | -1.43 | 1.7 | 237.0 | 7.1 | 244.4 |
| 42.0 | 41.92 | -1.02 | -1.66 | 2.0 | 238.6 | 6.9 | 247.3 |
| 44.0 | 43.90 | -1.11 | -1.90 | 2.2 | 239.7 | 7.9 | 260.6 |
| 44.7 | 44.59 | -1.14 | -1.99 | 2.3 | 240.2 | 7.9 | 252.6 |



GAMMA-NEUTRON

| | | | |
|-------------------|---------------------------|--------------------|---------------------------|
| COMPANY | : PINE VALLEY COAL LTD. | OTHER SERVICES: | |
| WELL | : WRH-96-047 | 9055 | |
| LOCATION/FIELD | : WILLOW CREEK PROJECT | 9030 | |
| COUNTY | : PINE PASS | | |
| STATE | : BRITISH COLUMBIA | | |
| SECTION | : TOWNSHIP | : RANGE | : |
| DATE | : 03/27/96 | PERMANENT DATUM | : GROUND ELEVATIONS |
| DEPTH DRILLER | : 44 | ELEV. PERM. DATUM: | : GROUND KB : |
| LOG BOTTOM | : 45.00 | LOG MEASURED FROM: | : GL DT : |
| LOG TOP | : 1.20 | DRL MEASURED FROM: | : GL CL : |
| CASING DRILLER | : 1.8 | LOGGING UNIT | : 9603 |
| CASING TYPE | : PVC | FIELD OFFICE | : CALGARY, A.B |
| CASING THICKNESS: | 0.65 | RECORDED BY | : B. BOONE |
| BIT SIZE | : 14 | BOREHOLE FLUID | : H2O/AIR FLUF : ORIGINAL |
| MAGNETIC DECL. | : 23 | RM | : TYPE : 9055A |
| MATRIX DENSITY | : 2.65 | RM TEMPERATURE | : LOG : 6 |
| FLUID DENSITY | : 1.1 | MATRIX DELTA T | : PLOT : SMOKY 7 |
| NEUTRON MATRIX | : SANDSTONE FLUID DELTA T | : | : THRESH: 10000 |
| REMARKS | : | | |
| OPEN HOLE | | | |
| VERTICAL | | | |

ALL SERVICES PROVIDED SUBJECT TO STANDARD TERMS AND CONDITIONS



GAMMA-RES-DENSITY

COMPANY : PINE VALLEY COAL LTD.
 WELL : WPH-96-047
 LOCATION/FIELD : WILLOW CREEK PROJECT
 COUNTY : PINE PASS
 STATE : BRITISH COLUMBIA
 SECTION : TOWNSHIP : RANGE :

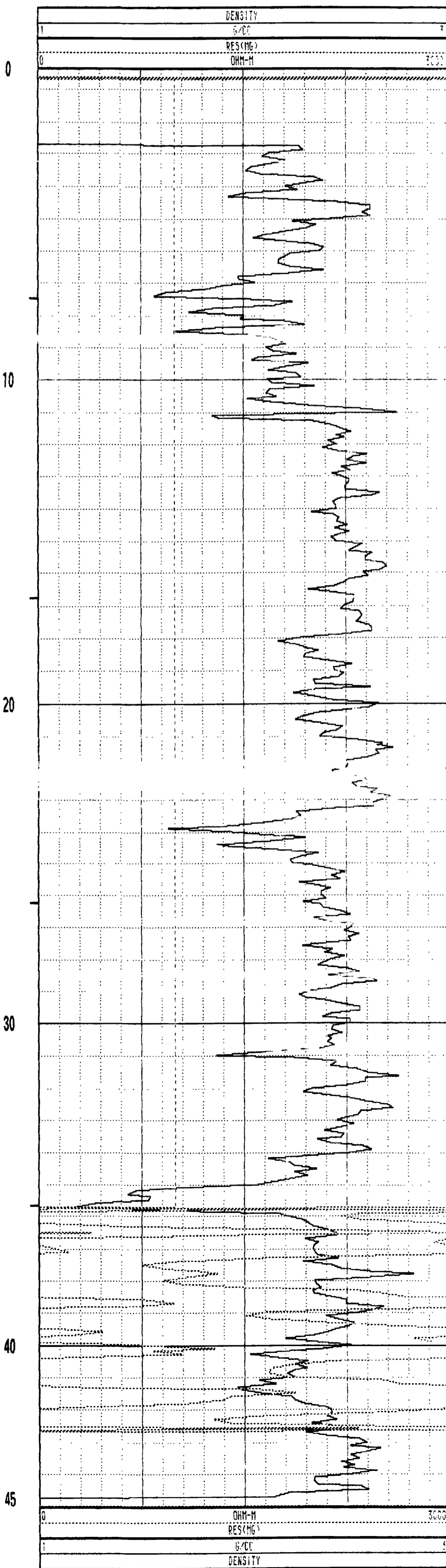
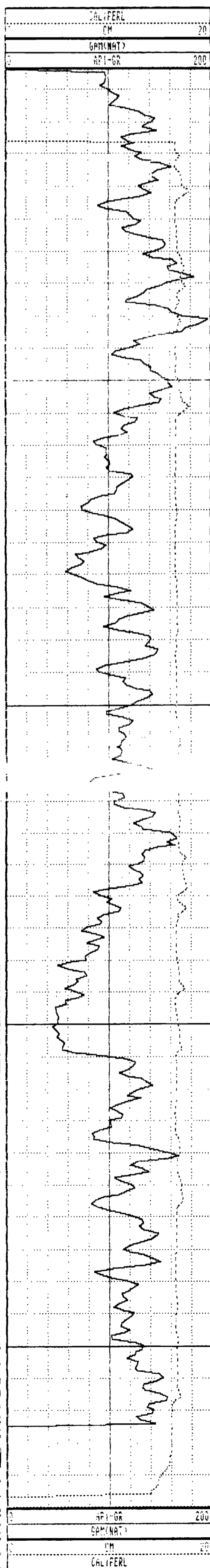
OTHER SERVICES:
 9055
 9030

DATE : 03/27/96 PERMANENT DATUM : GROUND ELEVATIONS
 DEPTH DRILLER : 44 ELEV. PERM. DATUM: GROUND KB :
 LOG BOTTOM : 45.10 LOG MEASURED FROM: GL DF :
 LOG TOP : 0.50 DRL MEASURED FROM: GL GL :
 CASING DRILLER : 1.8 LOGGING UNIT : 9603
 CASING TYPE : PVC FIELD OFFICE : CALGARY, A.B
 CASING THICKNESS: 0.65 RECORDED BY : B. BOONE

BIT SIZE : 14 BOREHOLE FLUID : H2O/AIR FIF : ORIGINAL
 MAGNETIC DECL. : 27 RM : TYPE : 9033AA
 MATRIX DENSITY : 2.65 RM TEMPERATURE : LOG : 7
 FLUID DENSITY : 1.1 MATRIX DELTA T : PLOT : SMOXY 3
 NEUTRON MATRIX : SANDSTONE FLUID DELTA T : THRESH: 10000

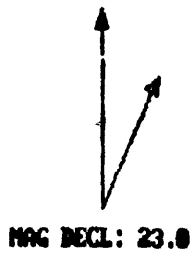
REMARKS :
 OPEN HOLE
 VERTICAL

ALL SERVICES PROVIDED SUBJECT TO STANDARD TERMS AND CONDITIONS

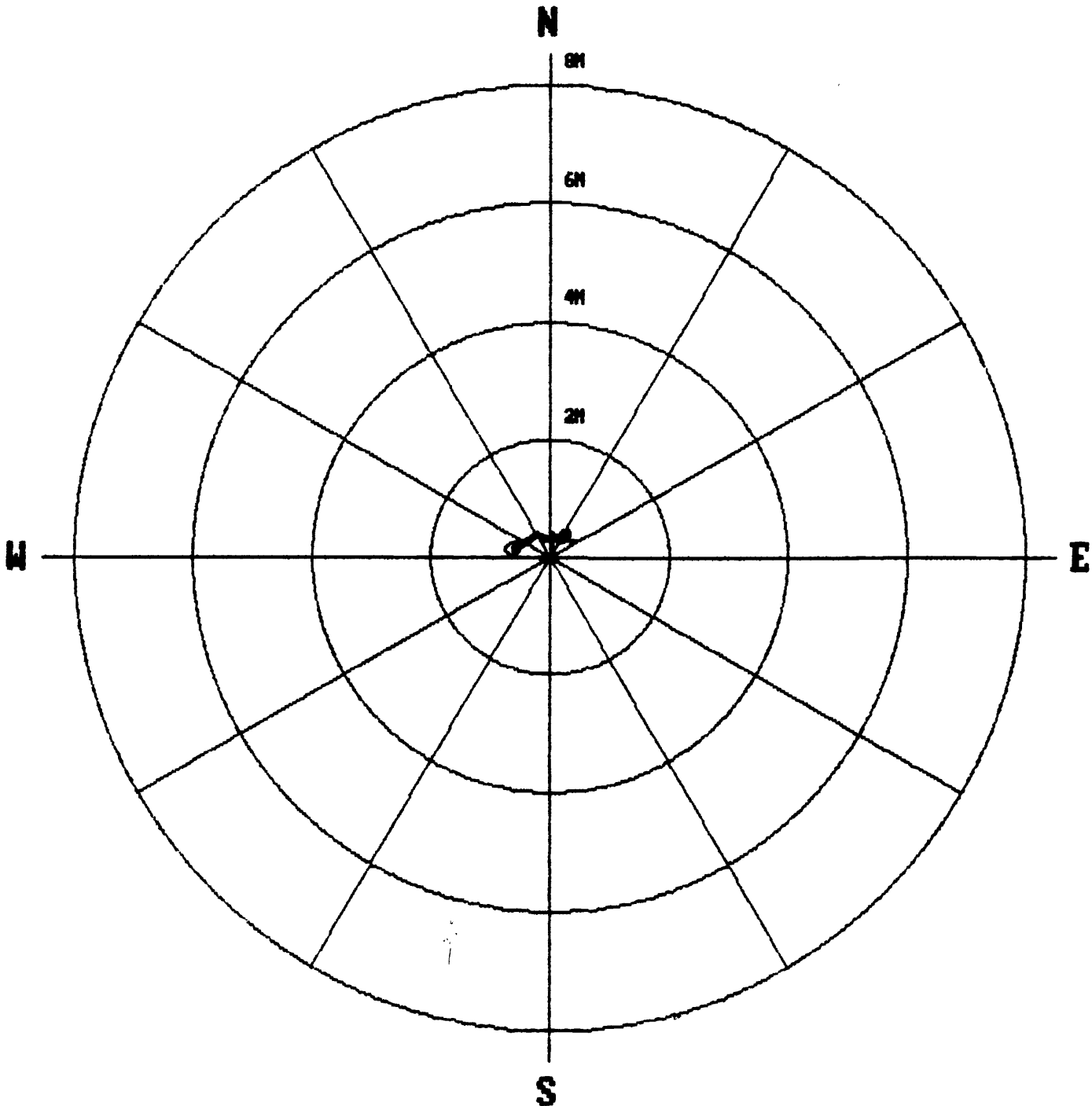


PLAN VIEW COMPU-LOG DEVIATION

CLIENT: PINE VALLEY COAL LTD.
 LOCATION: WILLOW CREEK PROJECT
 HOLE ID: WRH-96-048
 DATE OF LOG: 03/28/96
 PROBE: 9055A 58



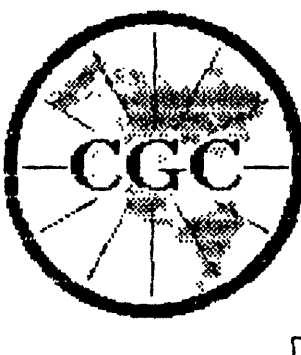
SCALE: 1 M/CM
 TRUE DEPTH: 97.27 M
 AZIMUTH: 282.9
 DISTANCE: 0.6 M
 + = 50 M INCR
 O = BOTTOM OF HOLE



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

| | | | |
|--------------|-----------------------|-------------|----------------|
| CLIENT | : PINE VALLEY COAL LT | HOLE ID. | : WRH-96-048 |
| FIELD OFFICE | : CALGARY, A.B | DATE OF LOG | : 03/28/96 |
| DATA FROM | : | PROBE | : 9055A , 58 |
| MAG. DECL. | : 23.000 | DEPTH UNITS | : METERS LOG 0 |

| CABLE DEPTH | TRUE DEPTH | NORTH DEV. | EAST DEV. | DISTANCE | AZIMUTH | SANG | SANGB |
|-------------|------------|------------|-----------|----------|---------|------|-------|
| 2.7 | 2.70 | 0.00 | 0.00 | 0.0 | 36.9 | 1.4 | 36.9 |
| 7.0 | 7.00 | 0.11 | 0.04 | 0.1 | 19.5 | 2.8 | 1.5 |
| 12.0 | 11.98 | 0.37 | 0.09 | 0.4 | 13.0 | 4.3 | 140.3 |
| 17.0 | 16.98 | 0.34 | 0.17 | 0.4 | 26.4 | 0.9 | 28.8 |
| 22.0 | 21.98 | 0.40 | 0.21 | 0.5 | 28.1 | 0.7 | 44.6 |
| 27.0 | 26.98 | 0.44 | 0.26 | 0.5 | 30.5 | 0.5 | 61.1 |
| 32.0 | 31.98 | 0.44 | 0.30 | 0.5 | 34.2 | 0.3 | 101.0 |
| 37.0 | 36.98 | 0.42 | 0.32 | 0.5 | 38.0 | 0.5 | 153.7 |
| 42.0 | 41.98 | 0.37 | 0.33 | 0.5 | 41.7 | 0.5 | 198.8 |
| 47.0 | 46.98 | 0.33 | 0.30 | 0.4 | 42.2 | 0.6 | 241.6 |
| 52.0 | 51.98 | 0.30 | 0.24 | 0.4 | 39.1 | 0.7 | 265.1 |
| 57.0 | 56.98 | 0.30 | 0.18 | 0.3 | 30.7 | 1.1 | 251.3 |
| 62.0 | 61.98 | 0.31 | 0.09 | 0.3 | 15.3 | 1.3 | 288.7 |
| 67.0 | 66.97 | 0.33 | -0.05 | 0.3 | 351.6 | 1.4 | 291.7 |
| 72.0 | 71.97 | 0.35 | -0.15 | 0.4 | 337.1 | 0.6 | 278.3 |
| 77.0 | 76.97 | 0.38 | -0.23 | 0.4 | 328.5 | 1.5 | 268.8 |
| 82.0 | 81.97 | 0.31 | -0.32 | 0.4 | 313.7 | 1.4 | 237.8 |
| 87.0 | 86.97 | 0.26 | -0.41 | 0.5 | 302.2 | 1.0 | 253.6 |
| 92.0 | 91.97 | 0.22 | -0.51 | 0.6 | 292.9 | 0.9 | 270.3 |
| 97.0 | 96.97 | 0.15 | -0.62 | 0.6 | 283.8 | 2.1 | 214.4 |
| 97.3 | 97.27 | 0.14 | -0.62 | 0.6 | 282.9 | 2.1 | 214.2 |



Century GEOPHYSICAL CORP.

GAMMA-NEUTRON

COMPANY : PINE VALLEY COAL LTD.
 WELL : WRH-96-048
 LOCATION/FIELD : WILLOW CREEK PROJECT
 COUNTY : PINE PASS
 STATE : BRITISH COLUMBIA
 SECTION : TOWNSHIP :

OTHER SERVICES:
 9055
 9030

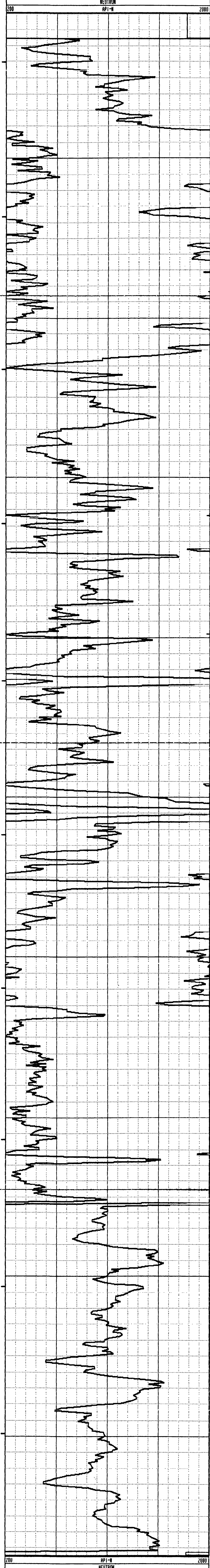
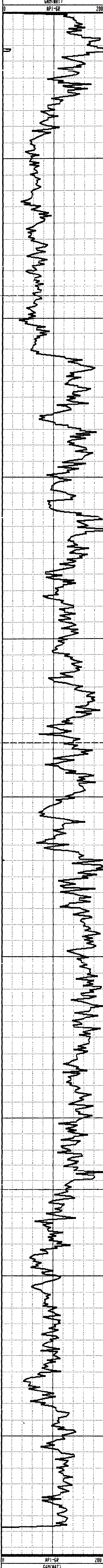
DATE : 03/28/96 PERMANENT DATUM : GROUND ELEVATIONS
 DEPTH DRILLER : 98 ELEV. PERM. DATUM: GROUND KB :
 LOG BOTTOM : 97.60 LOG MEASURED FROM: GL DF :
 LOG TOP : 1.10 DRL MEASURED FROM: GL GL :

CASING DRILLER : 2 LOGGING UNIT : 9603
 CASING TYPE : PUC FIELD OFFICE : CALGARY, A.B
 CASING THICKNESS: 0.65 RECORDED BY : B. BOONE

BIT SIZE : 14 BOREHOLE FLUID : H2O/AIR FILE : ORIGINAL
 MAGNETIC DECL. : 23 RM TYPE : 9055A
 MATRIX DENSITY : 2.65 RM TEMPERATURE : LOG : 9
 FLUID DENSITY : 1.1 MATRIX DELTA T : PLOT : SMOKY 7
 NEUTRON MATRIX : SANDSTONE FLUID DELTA T : THRESH: 10000

REMARKS :
 OPEN HOLE
 VERTICAL

ALL SERVICES PROVIDED SUBJECT TO STANDARD TERMS AND CONDITIONS



GAMMA-RES-DENSITY

COMPANY : PINE VALLEY COAL LTD.
 WELL : WRH-96-048
 LOCATION/FIELD : WILLOW CREEK PROJECT
 COUNTY : PINE PASS
 STATE : BRITISH COLUMBIA
 SECTION : TOWNSHIP : RANGE :

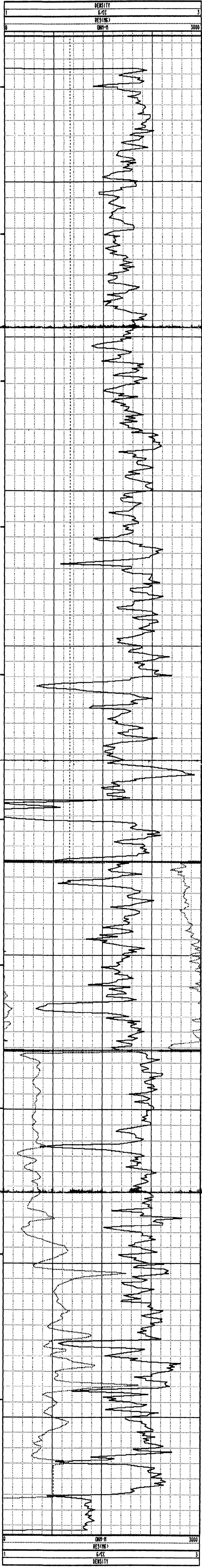
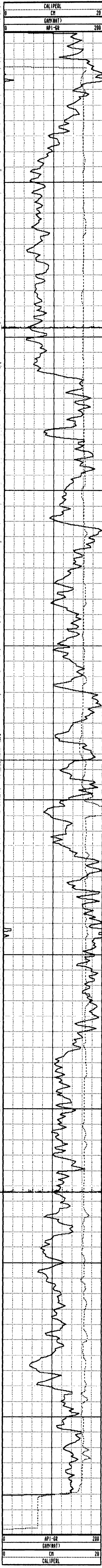
OTHER SERVICES:
 9855
 9838

DATE : 03/28/96 PERMANENT DATUM : GROUND ELEVATIONS
 DEPTH DRILLER : 98 ELEV. PERM. DATUM: GROUND KB :
 LOG BOTTOM : 97.70 LOG MEASURED FROM: GL DF :
 LOG TOP : 0.40 DRL MEASURED FROM: CL CL :

CASING DRILLER : 2 LOGGING UNIT : 9683
 CASING TYPE : PVC FIELD OFFICE : CALGARY, A.B
 CASING THICKNESS: 0.65 RECORDED BY : B. BOONE

BIT SIZE : 14 BOREHOLE FLUID : H2O/AIR FILE : ORIGINAL
 MAGNETIC DECL. : 23 RM TYPE : 9833AA
 MATRIX DENSITY : 2.65 RM TEMPERATURE : LOG : 0
 FLUID DENSITY : 1.1 MATRIX DELTA T : PLOT : SMOKY 3
 NEUTRON MATRIX : SANDSTONE FLUID DELTA T : THRESH: 10000
 REMARKS :
 OPEN HOLE
 VERTICAL

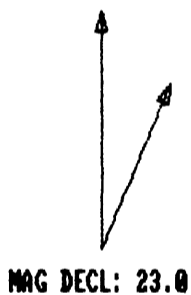
ALL SERVICES PROVIDED SUBJECT TO STANDARD TERMS AND CONDITIONS



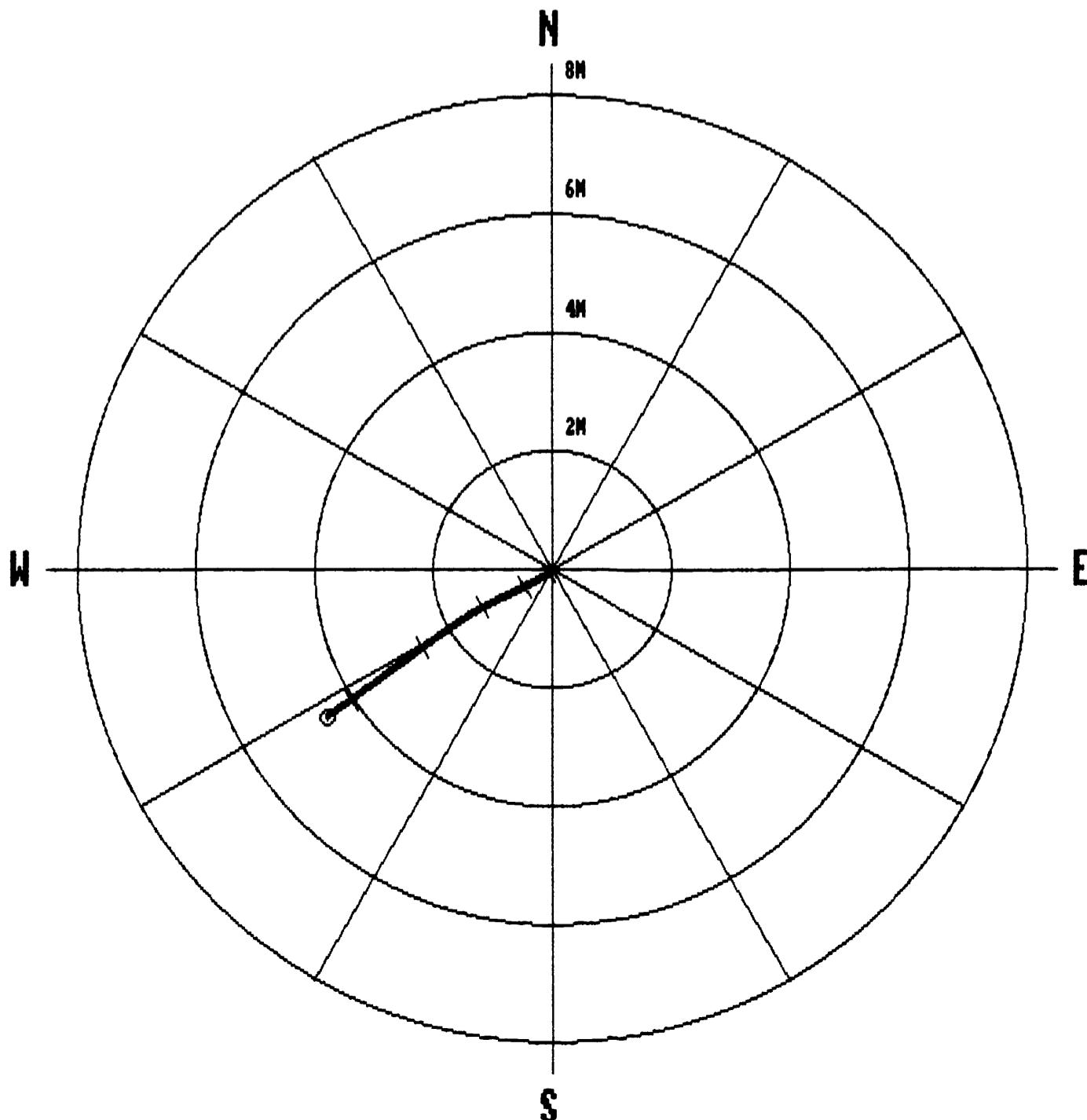
| | | | | | | | |
|------|-------|-------|-------|-----|-------|------|-------|
| 1.0 | 1.00 | 0.00 | 0.00 | 0.0 | 0.0 | 0.0 | 0.0 |
| 2.0 | 2.00 | 0.00 | 0.00 | 0.0 | 0.0 | 0.0 | 0.0 |
| 3.0 | 3.00 | -0.01 | 0.01 | 0.0 | 140.5 | 0.9 | 98.3 |
| 4.0 | 4.00 | -0.01 | 0.01 | 0.0 | 124.3 | 0.7 | 66.6 |
| 5.0 | 5.00 | -0.01 | 0.02 | 0.0 | 128.7 | 0.7 | 177.4 |
| 6.0 | 6.00 | -0.02 | 0.02 | 0.0 | 131.2 | 0.6 | 77.8 |
| 7.0 | 7.00 | -0.02 | 0.02 | 0.0 | 141.1 | 0.7 | 161.3 |
| 8.0 | 8.00 | -0.03 | 0.01 | 0.0 | 158.5 | 1.5 | 234.8 |
| 9.0 | 9.00 | -0.05 | -0.01 | 0.0 | 196.6 | 2.2 | 251.2 |
| 10.0 | 10.00 | -0.07 | -0.06 | 0.1 | 218.6 | 2.8 | 245.5 |
| 11.0 | 11.00 | -0.09 | -0.11 | 0.1 | 228.1 | 3.4 | 245.9 |
| 12.0 | 11.99 | -0.13 | -0.17 | 0.2 | 231.9 | 5.4 | 241.6 |
| 13.0 | 12.99 | -0.18 | -0.25 | 0.3 | 234.2 | 5.9 | 248.7 |
| 14.0 | 13.98 | -0.23 | -0.35 | 0.4 | 236.6 | 6.4 | 243.9 |
| 15.0 | 14.98 | -0.28 | -0.45 | 0.5 | 237.8 | 6.7 | 235.5 |
| 16.0 | 15.97 | -0.34 | -0.57 | 0.7 | 239.0 | 8.2 | 252.0 |
| 17.0 | 16.96 | -0.40 | -0.69 | 0.8 | 239.7 | 8.8 | 239.9 |
| 18.0 | 17.95 | -0.47 | -0.83 | 1.0 | 240.6 | 8.8 | 239.0 |
| 19.0 | 18.93 | -0.55 | -0.98 | 1.1 | 240.8 | 10.3 | 248.5 |
| 20.0 | 19.91 | -0.63 | -1.15 | 1.3 | 241.2 | 11.4 | 239.8 |
| 21.0 | 20.89 | -0.74 | -1.33 | 1.5 | 241.0 | 12.6 | 249.3 |
| 22.0 | 21.86 | -0.87 | -1.52 | 1.7 | 240.3 | 13.5 | 246.7 |
| 23.0 | 22.83 | -0.99 | -1.72 | 2.0 | 240.1 | 14.0 | 229.5 |
| 24.0 | 23.80 | -1.13 | -1.92 | 2.2 | 239.5 | 14.7 | 238.0 |
| 25.0 | 24.77 | -1.28 | -2.13 | 2.5 | 239.0 | 12.7 | 246.2 |
| 26.0 | 25.73 | -1.44 | -2.34 | 2.8 | 238.4 | 16.6 | 224.5 |
| 27.0 | 26.69 | -1.60 | -2.56 | 3.0 | 238.0 | 15.5 | 219.9 |
| 28.0 | 27.65 | -1.76 | -2.79 | 3.3 | 237.7 | 16.9 | 237.6 |
| 29.0 | 28.61 | -1.94 | -3.02 | 3.6 | 237.3 | 17.1 | 231.3 |
| 30.0 | 29.56 | -2.11 | -3.27 | 3.9 | 237.1 | 17.7 | 246.8 |
| 31.0 | 30.51 | -2.29 | -3.52 | 4.2 | 236.9 | 18.1 | 246.7 |
| 32.0 | 31.46 | -2.47 | -3.77 | 4.5 | 236.8 | 18.9 | 237.0 |
| 32.0 | 31.50 | -2.48 | -3.78 | 4.5 | 236.8 | 19.0 | 235.9 |

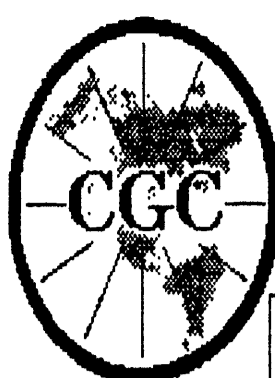
**PLAN VIEW
COMPU-LOG DEVIATION**

CLIENT: PINE VALLEY COAL
 LOCATION: WILLOW CREEK
 HOLE ID: WRH-96049
 DATE OF LOG: 09/26/96
 PROBE: 9055A 71



SCALE: 1 M/CM
 TRUE DEPTH: 31.50 M
 AZIMUTH: 236.8
 DISTANCE: 4.5 M
 + = 5 M INCR
 O = BOTTOM OF HOLE





Century
GEOPHYSICAL CORP.

GAMMA-NEUTRON

COMPANY : PINE VALLEY COAL
 WELL : WRH-96049
 LOCATION/FIELD : WILLOW CREEK
 COUNTY :
 STATE : BRITISH COLUMBIA
 SECTION : TOWNSHIP :

OTHER SERVICES:

DATE : 09/26/96
 DEPTH DRILLER : 30
 LOG BOTTOM : 32.10
 LOG TOP : 0.82

PERMANENT DATUM :
 ELEV. PERM. DATUM:
 LOG MEASURED FROM: G.L.
 DRL MEASURED FROM:

ELEVATIONS
 KB :
 DF :
 GL :

CASING DRILLER : 3
 CASING TYPE : STEEL
 CASING THICKNESS: .25

LOGGING UNIT : 9612
 FIELD OFFICE : CALGARY, AB.
 RECORDED BY : R. THOMAS

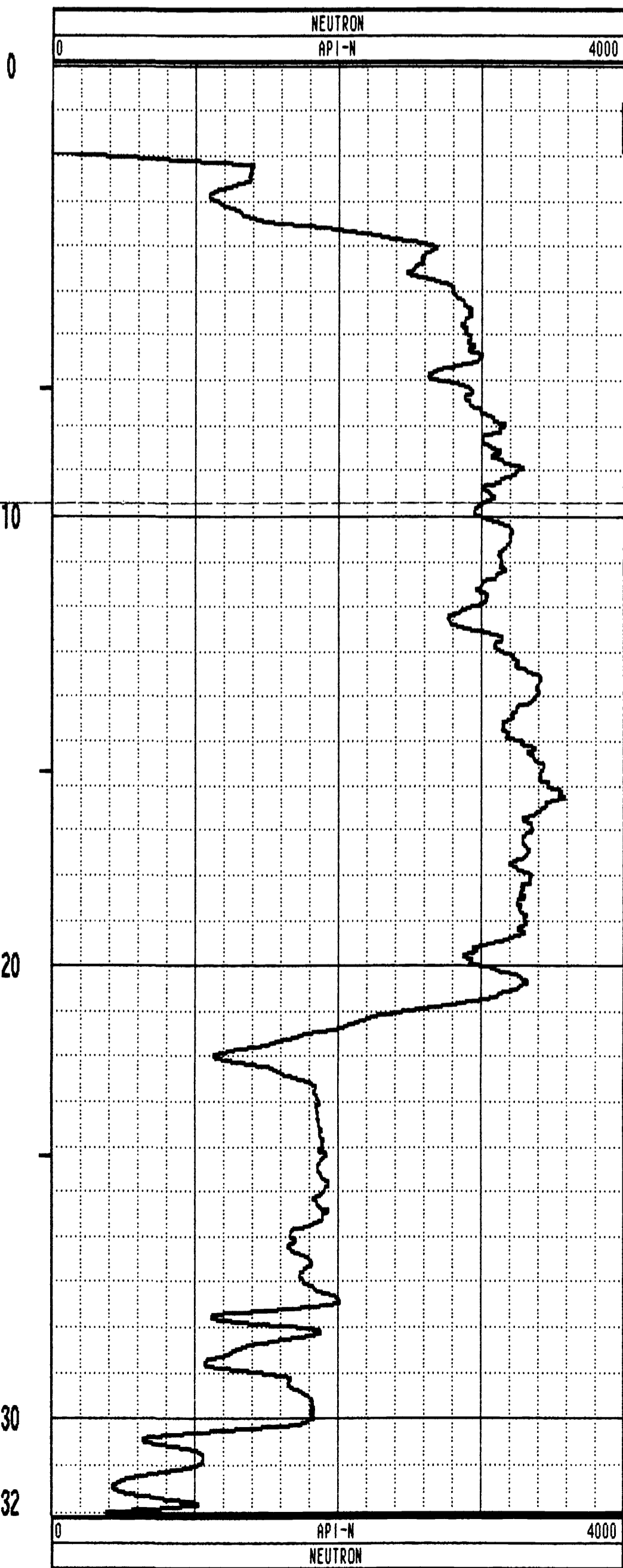
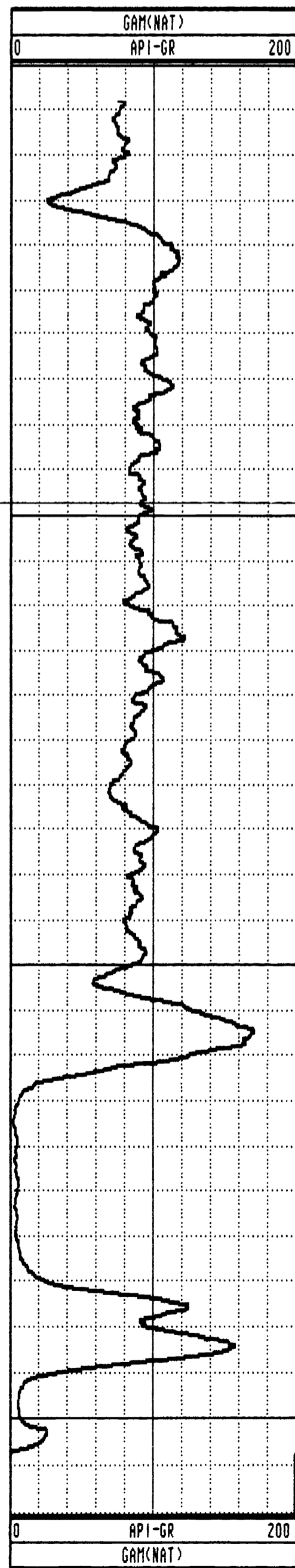
BIT SIZE :
 MAGNETIC DECL. : 23.00
 MATRIX DENSITY :
 FLUID DENSITY : 1.1
 NEUTRON MATRIX : 2.65

BOREHOLE FLUID : WATER
 RM :
 RM TEMPERATURE :
 MATRIX DELTA T :
 FLUID DELTA T :

FILE : ORIGINAL
 TYPE : 9055A
 LOG : 4
 PLOT : PINE 4
 THRESH: 10000

REMARKS :
 NONE

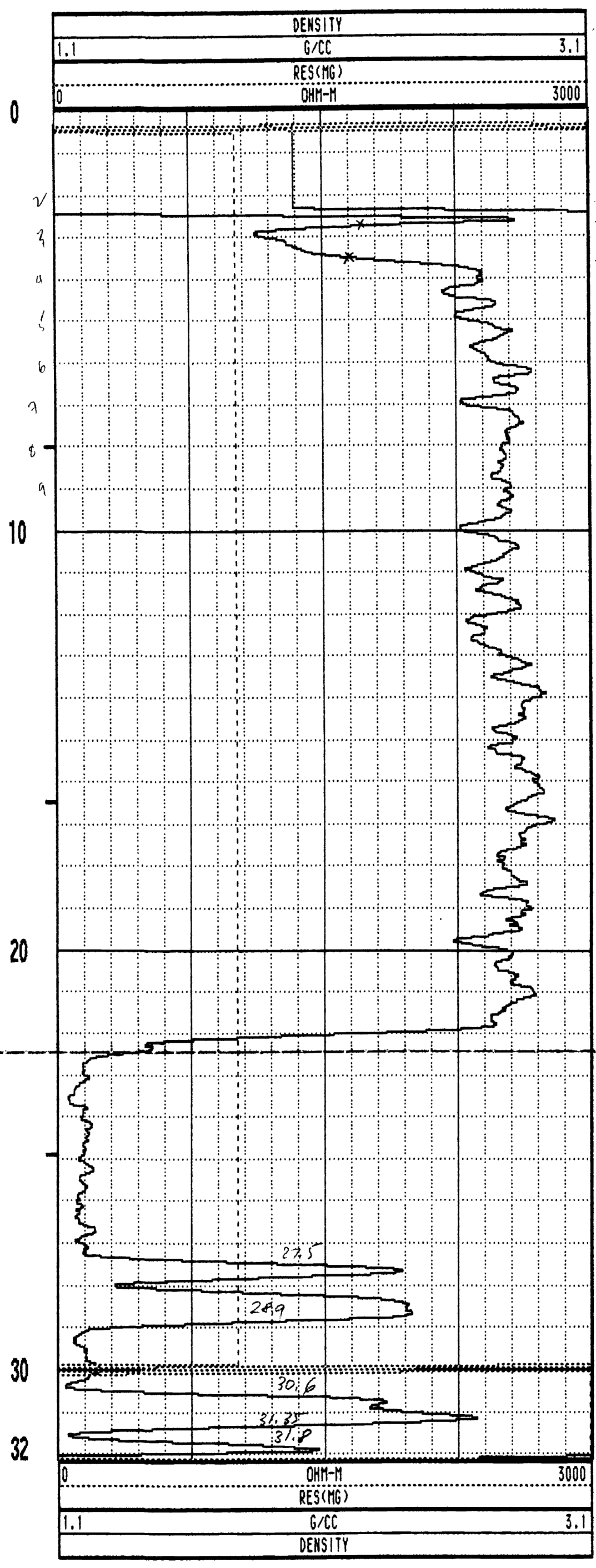
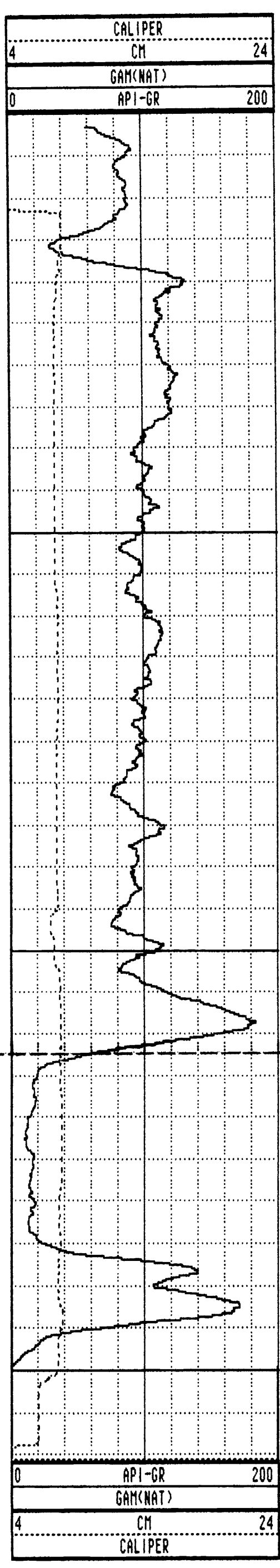
ALL SERVICES PROVIDED SUBJECT TO STANDARD TERMS AND CONDITIONS



GAMMA-RES-DENSITY

| | | | |
|------------------|--------------------|-------------------------|----------------|
| COMPANY | : PINE VALLEY COAL | OTHER SERVICES: | |
| WELL | : WRH-96049 | | |
| LOCATION/FIELD | : WILLOW CREEK | | |
| COUNTY | : | | |
| STATE | : BRITISH COLUMBIA | | |
| SECTION | : | TOWNSHIP | : RANGE : |
| DATE | : 09/23/96 | PERMANENT DATUM | : ELEVATIONS |
| DEPTH DRILLER | : 31 | ELEV. PERM. DATUM: | KB : |
| LOG BOTTOM | : 32.16 | LOG MEASURED FROM: G.L. | DF : |
| LOG TOP | : 0.34 | DRL MEASURED FROM: | GL : |
| CASING DRILLER | : 3 | LOGGING UNIT | : 9612 |
| CASING TYPE | : STEEL | FIELD OFFICE | : CALGARY, AB. |
| CASING THICKNESS | : .25 | RECORDED BY | : R. THOMAS |
| BIT SIZE | : | BOREHOLE FLUID | : WATER |
| MAGNETIC DECL. | : 23.00 | RM | : |
| MATRIX DENSITY | : | RM TEMPERATURE | : |
| FLUID DENSITY | : 1.1 | MATRIX DELTA T | : |
| NEUTRON MATRIX | : 2.65 | FLUID DELTA T | : |
| REMARKS | : | | |
| NONE | : | | |

ALL SERVICES PROVIDED SUBJECT TO STANDARD TERMS AND CONDITIONS



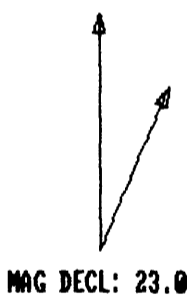
WRH-96049 09/23/96 958

| TOOL CALIBRATION | | TOOL = 9033AA | SERIAL NUMBER = 958 | | |
|------------------|----------|---------------|---------------------|--------------|--------------|
| CAL-DATE | CAL-TIME | SRCE | SENSOR | RESPONSE | STANDARD |
| 0 | NOV10.95 | 15:11:22 | 0 CALIPERL | 0.000 CPS | 0.000 CM |
| 1 | NOV10.95 | 15:11:22 | 0 CALIPERL | 0.000 CPS | 0.000 CM |
| 2 | JUL19.96 | 19:42:28 | -6 GAM(NAT) | 5310.000 CPS | 1.106 API-GR |
| 3 | JUL19.96 | 19:42:28 | -6 GAM(NAT) | 2191.000 CPS | 2.199 API-GR |
| 4 | JUL20.96 | 14:31:55 | 0 DENSITY | 0.000 CPS | 0.000 G/CC |
| 5 | JUL20.96 | 14:31:55 | 0 DENSITY | 0.000 CPS | 0.000 G/CC |
| 6 | JUL18.96 | 17:53:34 | 0 RES(MG) | 0.000 CPS | 1.106 OHM-M |
| 7 | JUL18.96 | 17:53:34 | 0 RES(MG) | 0.000 CPS | 0.000 OHM-M |
| 8 | NOV13.95 | 13:41:31 | 0 CALIPER | 271.000 CPS | 7.600 CM |
| 9 | NOV13.95 | 13:41:31 | 0 CALIPER | 1880.000 CPS | 17.800 CM |
| 10 | NOV10.95 | 15:11:22 | 0 DENSITYH | 0.000 CPS | 0.000 G/CC |
| 11 | NOV10.95 | 15:11:22 | 0 DENSITYH | 0.000 CPS | 0.000 G/CC |
| 12 | NOV15.95 | 10:21:21 | 0 CALIPERL | 0.000 CPS | 5.100 CM |
| 13 | NOV15.95 | 10:21:21 | 0 CALIPERL | 2366.000 CPS | 33.000 CM |

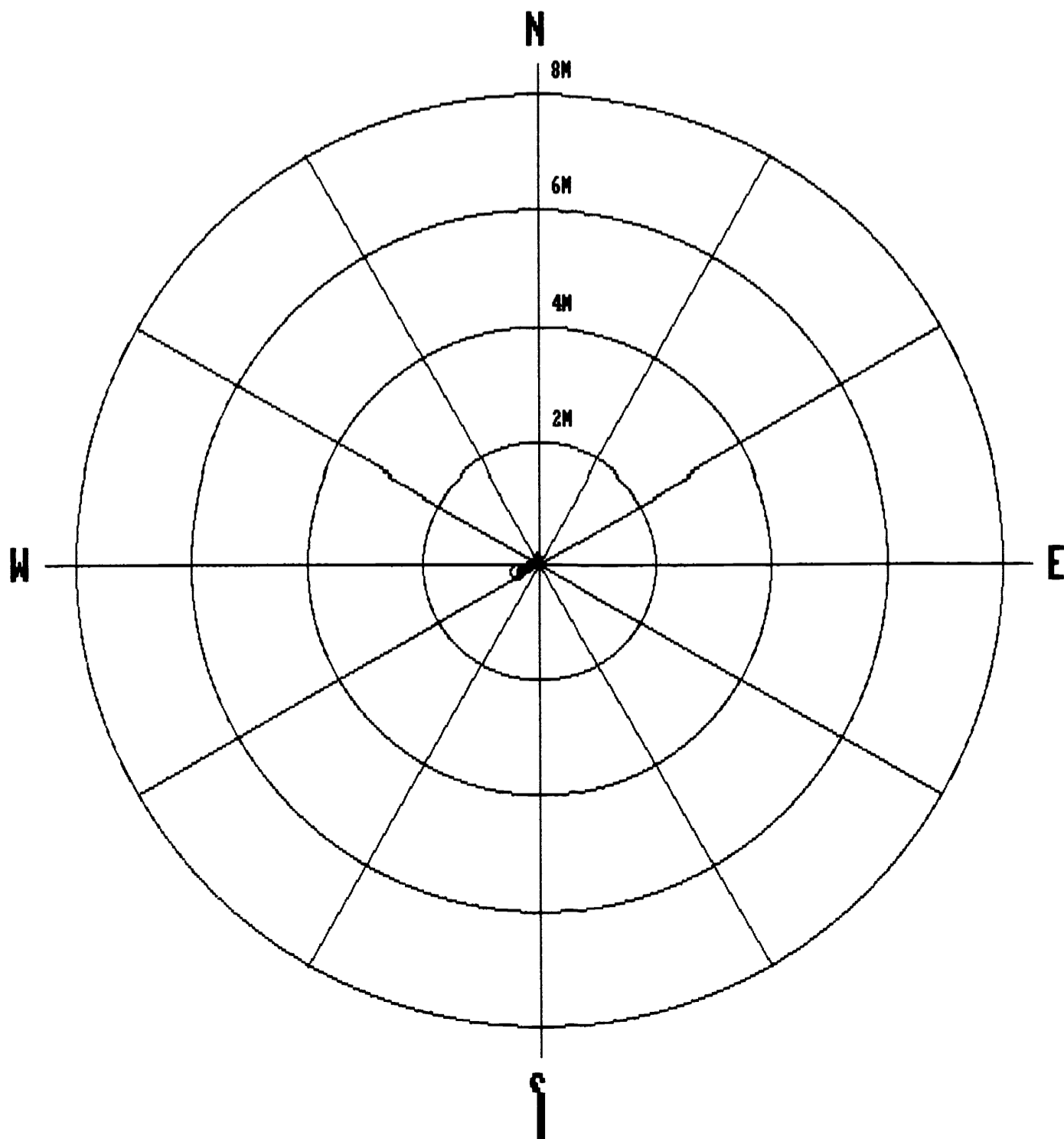
| | | | | | | | |
|------|-------|-------|-------|-----|-------|-----|-------|
| 1.0 | 1.00 | 0.00 | 0.00 | 0.0 | 0.0 | 0.0 | 0.0 |
| 2.0 | 2.00 | 0.00 | 0.00 | 0.0 | 0.0 | 0.0 | 0.0 |
| 3.0 | 3.00 | 0.03 | 0.02 | 0.0 | 28.0 | 2.0 | 24.7 |
| 4.0 | 4.00 | 0.06 | 0.02 | 0.1 | 23.8 | 1.4 | 18.7 |
| 5.0 | 5.00 | 0.07 | 0.03 | 0.1 | 19.5 | 0.8 | 343.5 |
| 6.0 | 6.00 | 0.08 | 0.02 | 0.1 | 13.5 | 0.9 | 303.7 |
| 7.0 | 7.00 | 0.08 | -0.00 | 0.1 | 359.8 | 1.5 | 259.4 |
| 8.0 | 8.00 | 0.08 | -0.03 | 0.1 | 342.0 | 1.5 | 252.2 |
| 9.0 | 9.00 | 0.06 | -0.06 | 0.1 | 316.6 | 2.2 | 243.2 |
| 10.0 | 10.00 | 0.04 | -0.10 | 0.1 | 293.0 | 2.6 | 239.6 |
| 11.0 | 11.00 | 0.02 | -0.14 | 0.1 | 277.8 | 2.9 | 242.3 |
| 12.0 | 11.99 | -0.01 | -0.20 | 0.2 | 266.7 | 3.8 | 237.2 |
| 13.0 | 12.99 | -0.05 | -0.26 | 0.3 | 259.3 | 4.4 | 240.8 |
| 14.0 | 13.99 | -0.09 | -0.33 | 0.3 | 254.2 | 5.1 | 238.6 |
| 14.4 | 14.39 | -0.11 | -0.36 | 0.4 | 252.5 | 5.7 | 236.1 |

PLAN VIEW COMPU-LOG DEVIATION

CLIENT: PINE VALLEY COAL LTD.
 LOCATION: WILLOW CREEK
 HOLE ID: WRH-96050
 DATE OF LOG: 07/14/96
 PROBE: 9055A 56



SCALE: 1 M/CM
 TRUE DEPTH: 14.39 M
 AZIMUTH: 252.5
 DISTANCE: 0.4 M
 + = 10 M INCR
 ○ = BOTTOM OF HOLE



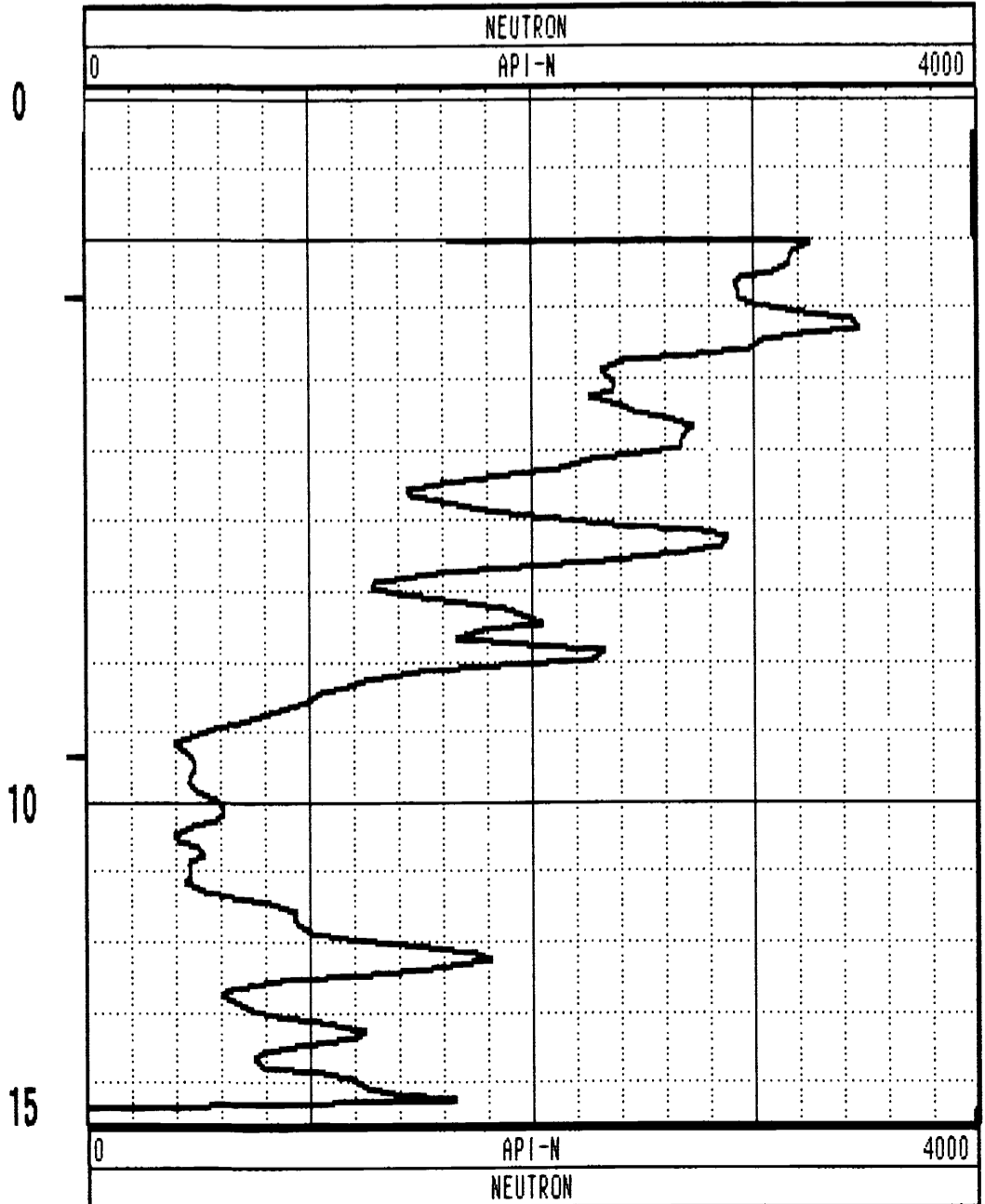
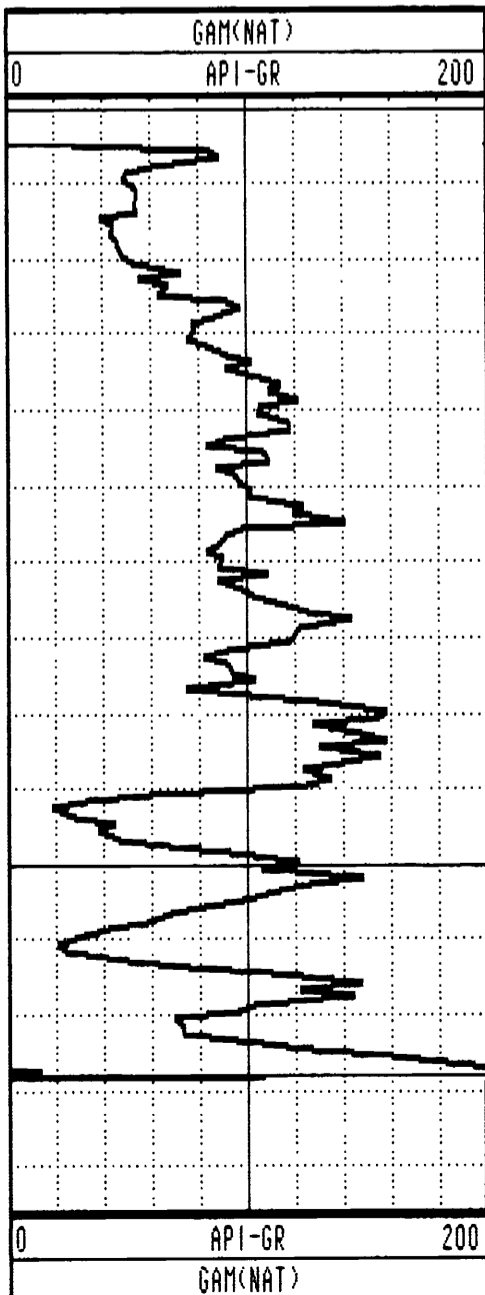


Century GEOPHYSICAL CORP.

GAMMA-NEUTRON

| | | | | | |
|-------------------|-------------------------|--------------------|----------------|------------|------------|
| COMPANY | : PINE VALLEY COAL LTD. | OTHER SERVICES: | | | |
| WELL | : WRH-96050 | | | | |
| LOCATION/FIELD | : WILLOW CREEK | | | | |
| COUNTY | : | | | | |
| STATE | : BRITISH COLUMBIA | | | | |
| SECTION | : | TOWNSHIP | : | RANGE | : |
| DATE | : 07/14/96 | PERMANENT DATUM | : | ELEVATIONS | |
| DEPTH DRILLER | : 12 | ELEV. PERM. DATUM: | | KB | : |
| LOG BOTTOM | : 14.70 | LOG MEASURED FROM: | G.L. | DF | : |
| LOG TOP | : 0.60 | DRL MEASURED FROM: | | GL | : |
| CASING DRILLER | : 3 | LOGGING UNIT | : 9612 | | |
| CASING TYPE | : PLASTIC | FIELD OFFICE | : CALGARY, AB. | | |
| CASING THICKNESS: | .25 | RECORDED BY | : R. THOMAS | | |
| BIT SIZE | : | BOREHOLE FLUID | : AIR | FILE | : ORIGINAL |
| MAGNETIC DECL. | : 23 | RM | : | TYPE | : 9055A |
| MATRIX DENSITY | : | RM TEMPERATURE | : | LOG | : 5 |
| FLUID DENSITY | : 1.1 | MATRIX DELTA T | : | PLOT | : PINE 4 |
| NEUTRON MATRIX | : 2.65 | FLUID DELTA T | : | THRESH: | 500000 |
| REMARKS | : | | | | |

ALL SERVICES PROVIDED SUBJECT TO STANDARD TERMS AND CONDITIONS



GAMMA-RES-DENSITY

COMPANY : PINE VALLEY COAL LTD.
 WELL : WRH-96050
 LOCATION/FIELD : WILLOW CREEK
 COUNTY :
 STATE : BRITISH COLUMBIA
 SECTION : TOWNSHIP : RANGE :

OTHER SERVICES:

DATE : 07/14/96 PERMANENT DATUM : ELEVATIONS
 DEPTH DRILLER : 20 ELEV. PERM. DATUM: KB :
 LOG BOTTOM : 14.55 LOG MEASURED FROM: G.L. DF :
 LOG TOP : -0.50 DRL MEASURED FROM: GL :
 CASING DRILLER : 3 LOGGING UNIT : 9612
 CASING TYPE : STEEL FIELD OFFICE : CALGARY, AB.
 CASING THICKNESS: .25 RECORDED BY : R. THOMAS

BIT SIZE : BOREHOLE FLUID : AIR FILE : ORIGINAL
 MAGNETIC DECL. : 23 RM TYPE : 9030AA
 MATRIX DENSITY : RM TEMPERATURE : LOG : 3
 FLUID DENSITY : 1.1 MATRIX DELTA T : PLOT : PINE 3
 NEUTRON MATRIX : 2.65 FLUID DELTA T : THRESH: 500000
 REMARKS :

ALL SERVICES PROVIDED SUBJECT TO STANDARD TERMS AND CONDITIONS

