PREPARED IN COOPERATION WITH THE
U.S. DEPARTMENT OF ENERGY

PLATE 12
WELL LOG USW H-5

Well: H-5
Yucca Mountain Project
Nye Co., Nevada

Location:
Nevada Coordinate System
N-766,634'
E-558,909'

Log measured from
ground level, 4851 ft

Bit size (inch)	Drill depth	Casing depth	Circulating media	Logging dates	Fluid level
14.75	315				
		38	Air foam	05-25-82	
14.75	2599				
		311	Air, soap	06-09-82	2361
		311		06-10-82	2306
		311		06-11-82	
8.75	4000				
		2585	Air foam	06-23-82	2310
		2585		06-24-82	

BOREHOLE DEVIATION

Measured depth (feet)	Drift angle deg.	Drift angle min.	Drift direction deg. min.	True vertical depth (feet)	Rectangular coordinates (feet)
1000	1	0	S 63 0 W	999.89	9.51 S 0.29 E
2000	0	45	N 77 0 W	1999.76	9.38 S 15.26 W
3000	0	45	S 53 0 W	2999.71	9.92 S 24.07 W
3980	1	45	S 4 0 W	3979.51	25.88 S 32.91 W

BW- Birdwell, DA- Dresser Atlas, GO- Gearhart Owen, LLNL- Lawrence Livermore National Laboratory, SW- Schlumberger Well Services, USGS- U.S. Geological Survey, na- not applicable, nd- not determined

T	Trace	Unit	Name or description	Log	Date	Depth (ft)
1	CAL	cm	Hole diameter, caliper	BW	05-25-82	39 - 304
1	CAL			BW	06-09-82	312 -2585
1	CAL			BW	07-23-82	2591 -3976
1	SP	mv	Spontaneous potential	BW	06-11-82	2303 -2575
1	SP			DA	06-24-82	2600 -3997
1	TC	API	Total count, spectral gamma	DA	06-25-82	11 -3995
2	DBC	g/cc	Density, borehole compensated	BW	06-11-82	312 -2585
2	DBC			DA	06-24-82	2586 -3995
2	NBC	%	Neutron porosity, compensated	DA	06-10-82	2309 -2582
2	NBC			DA	06-24-82	2585 -3995
2	SWL	na	Static water level	na	na	2309
3	PVEL	m/s	Comp. velocity, delta-t	DA	06-24-82	2591 -3984
4	SN	ohm-m	Resistivity, short normal	BW	06-11-82	2321 -2575
4	RFL	ohm-m	Resistivity, focused	DA	06-24-82	2601 -3994
4	RILD	ohm-m	Resistivity, deep induction	BW	05-25-82	44 - 307
4	RILD			BW	06-11-82	321 -2575
4	RILD			DA	06-24-82	2600 -3994
4	RILM	ohm-m	Resistivity, medium induction	DA	06-24-82	2601 -3994
5	ENP	API	Epithermal neutron	BW	06-10-82	312 -2584
6	K	%	Potassium, spectral log	DA	06-25-82	11 -3997
7	U	ppm	Uranium, spectral log	DA	06-25-82	11 -3995
7	TH	ppm	Thorium, spectral log	DA	06-25-82	11 -3995
8	MAGT	ut	Total magnetic field, proton	LLNL	07-10-82	318 -2579
9	FLOW	%	Radioactive tracer flow log	GO	07-02-82	2310 -3445

NOTE: Geologic unit symbols shown on this plate at the top of each formation are explained in table 4.

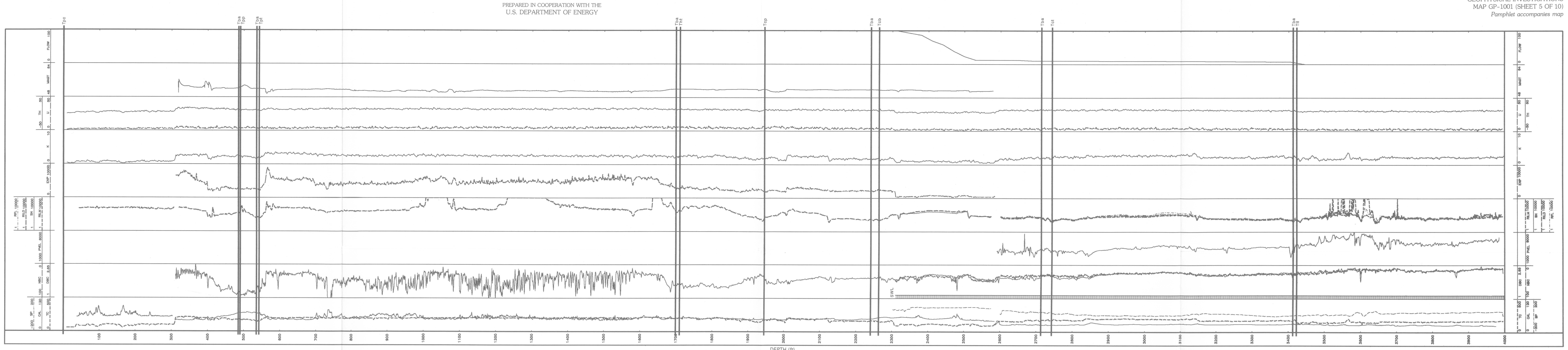


PLATE 13
WELL LOG USW H-6

Well: H-6
Yucca Mountain Project
Nye Co., Nevada

Location:
Nevada Coordinate System
N-763,299'
E-554,075'

Log measured from
ground level, 4271 ft

Bit size (inch)	Drill depth	Casing depth	Circulating media	Logging dates	Fluid level
17.5	335				
		31	Air foam	08-13-82	
		31		08-14-82	
14.75	1912				
		311	Air foam, water	09-03-82	1778
		311		09-04-82	1725
		311		09-05-82	1728
		311		09-07-82	
8.75	3990				
6.125	4002				
		1906	Air foam	09-30-82	
		1906		10-01-82	1724
		1906		10-02-82	

BOREHOLE DEVIATION

Measured depth (feet)	Drift angle deg.	Drift angle min.	Drift direction deg. min.	True vertical depth (feet)	Rectangular coordinates (feet)
1000	1	15	N 59 0 W	999.94	4.41 N 8.35 W
2000	0	45	N 80 0 W	1999.81	12.32 N 20.16 W
3000	1	0	S 85 0 W	2999.60	12.21 N 40.04 W
3950	1	0	S 46 0 W	3949.45	1.51 N 52.42 W

BW- Birdwell, DA- Dresser Atlas, GO- Gearhart Owen, LLNL- Lawrence Livermore National Laboratory, SW- Schlumberger Well Services, USGS- U.S. Geological Survey, na- not applicable

T	Trace	Unit	Name or description	Log	Date	Depth (ft)
1	CAL	cm	Hole diameter, caliper	BW	08-13-82	30 - 310
1	CAL			BW	09-04-82	314 -1890
1	CAL			BW	09-30-82	1907 -3972
1	SP	mv	Spontaneous potential	BW	09-04-82	1729 -1894
1	SP			BW	09-30-82	1906 -3975
1	TC	API	Total count, spectral gamma	DA	10-01-82	1 -3985
1	GR	API	Gamma ray	BW	09-04-82	320 -1898
1	GR			BW	09-30-82	1909 -3981
2	DBC	g/cc	Density, borehole compensated	BW	09-04-82	312 -1896
2	DBC			DA	09-30-82	1907 -3980
2	NBC	%	Neutron porosity, compensated	DA	10-01-82	1907 -3984
2	SWL	na	Static water level	na	na	1729
3	PVEL	m/s	Comp. velocity, delta-t	DA	10-01-82	1907 -3975
4	SN	ohm-m	Resistivity, short normal	BW	09-04-82	1744 -1894
4	SN			BW	09-30-82	1920 -3975
4	RILD	ohm-m	Resistivity, deep induction	BW	09-04-82	332 -1894
4	RILD			BW	09-30-82	1920 -3975
5	ENP	API	Epithermal neutron	BW	09-07-82	312 -1904
6	K	%	Potassium, spectral log	DA	10-01-82	1 -3985
7	U	ppm	Uranium, spectral log	DA	10-01-82	1 -3985
7	TH	ppm	Thorium, spectral log	DA	10-01-82	1 -3985
8	MAGT	ut	Total magnetic field, proton	LLNL	07-10-82	690 -1907
9	FLOW	%	Radioactive tracer flow log	GO	10-15-82	1804 -3116

NOTE: Geologic unit symbols shown on this plate at the top of each formation are explained in table 4.

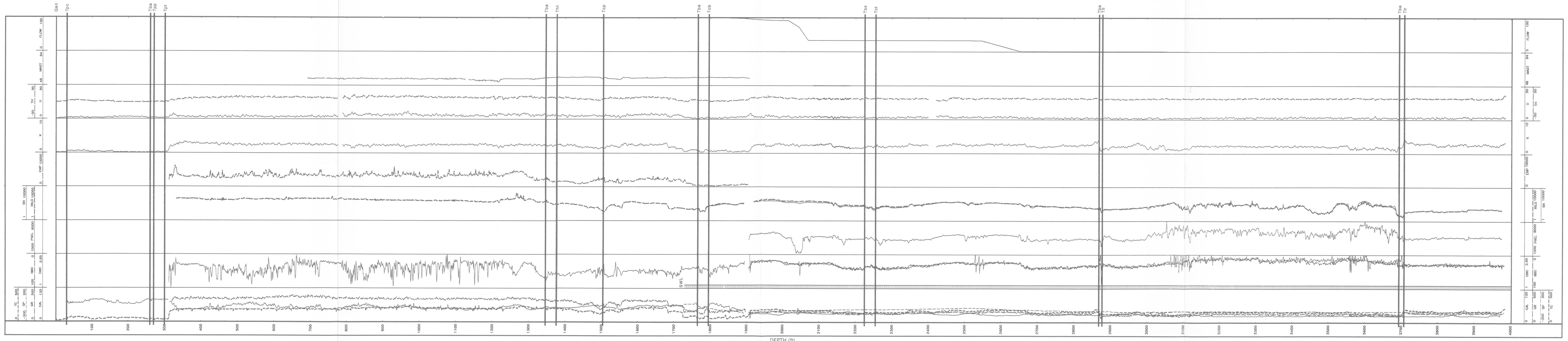


PLATE 14
WELL LOG UE-25c#1

Well: C-1
Yucca Mountain Project
Nye Co., Nevada

Location: Area 25
Nevada Coordinate System
N-757,096'
E-569,680'

Log measured from
ground level, 3709 ft

Bit size (inch)	Drill depth	Casing depth	Circulating media	Logging dates	Fluid level
24	368				
		30	Air and soap	08-21-83	
		30		08-22-83	
14.75	1525				
		362	Air and soap	09-07-83	1339
		362		09-08-83	1310
9.875	2990				
8.75	3000				
		1365	Air and soap	09-18-83	1314
		1365		09-19-83	
		1365		09-20-83	1313
		1365		10-03-83	

BOREHOLE DEVIATION

Measured depth (feet)	Drift angle deg.	Drift angle min.	Drift direction deg. min.	True vertical depth (feet)	Rectangular coordinates (feet)
1000	1	15	N 46 30 E	999.87	11.51 N 6.84 E
2000	1	0	N 44 0 E	1999.64	23.84 N 24.30 E
2925	0	30	S 87 0 E	2924.59	28.52 N 23.61 E

BW- Birdwell, DA- Dresser Atlas, GO- Gearhart Owen, LLNL- Lawrence Livermore National Laboratory, SW- Schlumberger Well Services USGS- U.S. Geological Survey, na- not applicable

T	Trace	Unit	Name or description	Log	Date	Depth (ft)
1	CAL	cm	Hole diameter, caliper	BW	08-21-83	40 - 357
1	CAL			BW	09-07-83	362 -1505
1	CAL			BW	09-18-83	1505 -2993
1	SP	mv	Spontaneous potential	BW	09-07-83	1312 -1506
1	SP			BW	09-20-83	1507 -2981
1	TC	API	Total count, spectral gamma	DA	09-18-83	1 -2997
1	GR	API	Gamma ray	BW	08-22-83	31 - 348
1	GR			BW	09-08-83	362 -1496
2	DBC	g/cc	Density, borehole compensated	BW	09-07-83	366 -1509
2	DBC			BW	10-02-83	1510 -2975
2	NBC	%	Neutron porosity, compensated	DA	09-18-83	1315 -2997
2	GRAV	g/cc	Density, borehole gravimeter	USGS	11-20-83	65 -2954
2	SWL	na	Static water level	na	na	1315
3	PVEL	m/s	Comp. velocity, delta-t	DA	09-18-83	1372 -2996
3	SVEL	m/s	Shear velocity, waveform	DA	09-18-83	1537 -2987
4	SN	ohm-m	Resistivity, short normal	BW	09-07-83	1327 -1506
4	SN			BW	09-20-83	1507 -2981
4	RILD	ohm-m	Resistivity, deep induction	BW	08-22-83	34 - 360
4	RILD			BW	09-07-83	390 -1506
4	RILD			BW	09-20-83	1507 -2981
4	RDIEL	ohm-m	Resistivity, dielectric	DA	09-07-83	371 -1510
4	RDIEL			DA	09-18-83	1511 -2992
5	ENP	API	Epithermal neutron	BW	08-22-83	31 - 363
5	ENP			BW	09-08-83	364 -1510
5	ENP			BW	09-20-83	1511 -2988
5	DIEL	ratio	Dielectric log	DA	09-07-83	365 -1510
5	DIEL			DA	09-18-83	1525 -2992
6	K	%	Potassium, spectral log	DA	09-18-83	1 -2996
7	U	ppm	Uranium, spectral log	DA	09-18-83	1 -2997
7	TH	ppm	Thorium, spectral log	DA	09-18-83	1 -2997

NOTE: Geologic unit symbols shown on this plate at the top of each formation are explained in table 4.

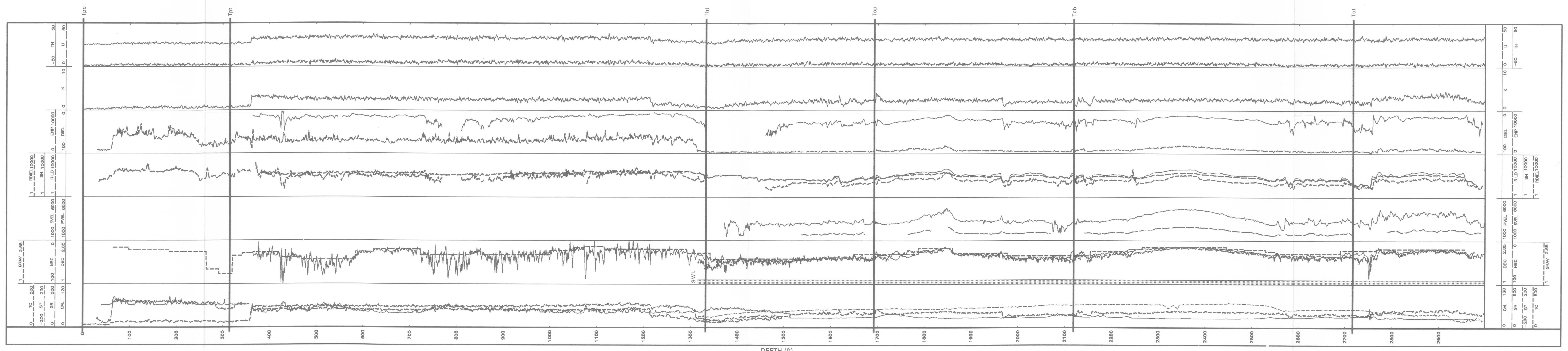


PLATE 15
WELL LOG UE-25c#2

Well: C-2
Yucca Mountain Project
Nye Co., Nevada

Location: Area 25
Nevada Coordinate System
N-756,849'
E-569,634'

Log measured from
ground level, 3714 ft

Bit size (inch)	Drill depth	Casing depth	Circulating media	Logging dates	Fluid level
24.0	320				
		39.5	Air and soap	01-27-84	
		39.5		01-30-84	
14.74	1520				
		319	Air and soap	02-07-84	1321
		319		02-08-84	1321
9.875	3000				
		1365	Air and soap	02-28-84	
		1365		02-29-84	

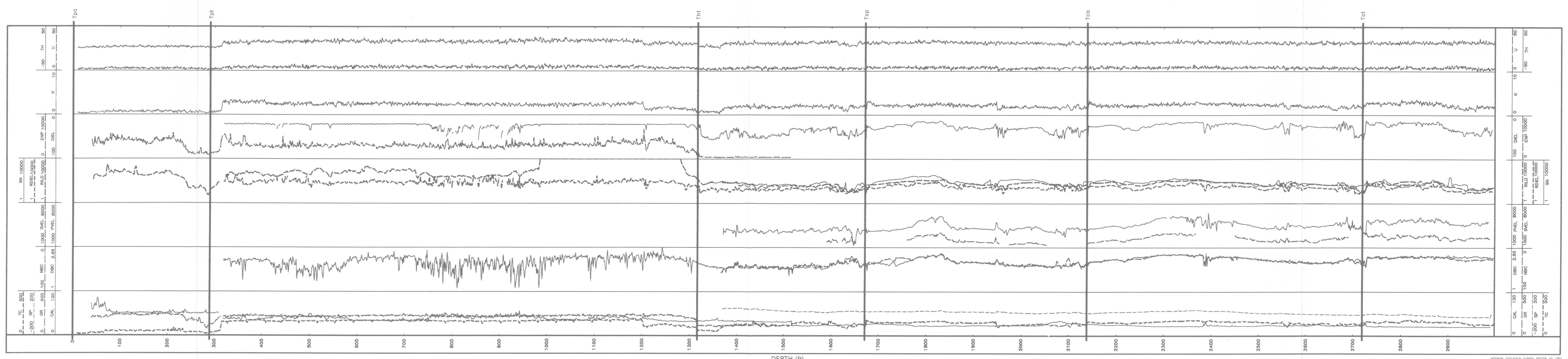
BOREHOLE DEVIATION

Measured depth (feet)	Drift angle deg.	Drift angle min.	Drift direction deg. min.	True vertical depth (feet)	Rectangular coordinates (feet)
1000	0	50	S 79 45 E	999.92	2.69 S 10.92 E
2000	0	10	N 55 32 E	1999.77	3.01 N 24.41 E
2975	0	0	S 83 2 W	2974.72	2.98 N 16.37 E

BW- Birdwell, DA- Dresser Atlas, GO- Gearhart Owen, LLNL- Lawrence Livermore National Laboratory, SW- Schlumberger Well Services USGS- U.S. Geological Survey

T	Trace	Unit	Name or description	Log	Date	Depth (ft)
1	CAL	cm	Hole diameter, caliper	BW	01-27-84	40 - 310
1	CAL			BW	02-07-84	319 -1506
1	CAL			BW	02-28-84	1508 -2999
1	SP	mv	Spontaneous potential	BW	02-28-84	1370 -2994
1	TC	API	Total count, spectral gamma	DA	02-28-84	1 -3006
1	GR	API	Gamma ray	BW	01-27-84	40 - 314
1	GR			BW	02-08-84	320 -1512
2	DBC	g/cc	Density, borehole compensated	BW	02-08-84	320 -1510
2	DBC			BW	02-28-84	1512 -2997
2	NBC	%	Neutron porosity, compensated	BW	02-29-84	1366 -2997
3	PVEL	m/s	Comp. velocity, delta-t	DA	02-28-84	1371 -2984
3	SVEL	m/s	Shear velocity, waveform	DA	02-28-84	1591 -2987
4	SN	ohm-m	Resistivity, short normal	BW	02-28-84	1335 -2994
4	RILD	ohm-m	Resistivity, deep induction	BW	01-27-84	44 - 312
4	RILD			BW	02-07-84	325 -1348
4	RILD			BW	02-28-84	1350 -2994
4	RDIEL	ohm-m	Resistivity, dielectric	DA	02-08-84	314 -1507
4	RDIEL			DA	02-28-84	1510 -3004
5	ENP	API	Epithermal neutron	BW	01-29-84	40 - 316
5	ENP			BW	02-08-84	319 -1513
5	DIEL	ratio	Dielectric log	DA	02-08-84	314 -1510
5	DIEL			DA	02-28-84	1511 -3004
6	K	%	Potassium, spectral log	DA	02-28-84	1 -3006
7	U	ppm	Uranium, spectral log	DA	02-28-84	1 -2997
7	TH	ppm	Thorium, spectral log	DA	02-28-84	10 -2997

NOTE: Geologic unit symbols shown on this plate at the top of each formation are explained in table 4.



GEOPHYSICAL LOGS AND CORE MEASUREMENTS FROM FORTY BOREHOLES AT YUCCA MOUNTAIN, NEVADA

By
Philip H. Nelson, Douglas C. Muller, Ulrich Schimschal, and Joyce E. Kibler
1991