

Simultaneous Triphasic Induction of β -Log

MEDICAL
 SOCIAL
 SEX. K. B. 758.82
 G. L. 754.22
 G8F - - - -

All interpretations of log data are opinions based on inferences from electrical or other measurements. We do not guarantee the accuracy or correctness of any interpretation or recommendation and we shall not be liable or responsible for any loss, cost, damages or expenses incurred or sustained by anyone resulting from any interpretation or recommendation made by any of our employees or agents.

0618057

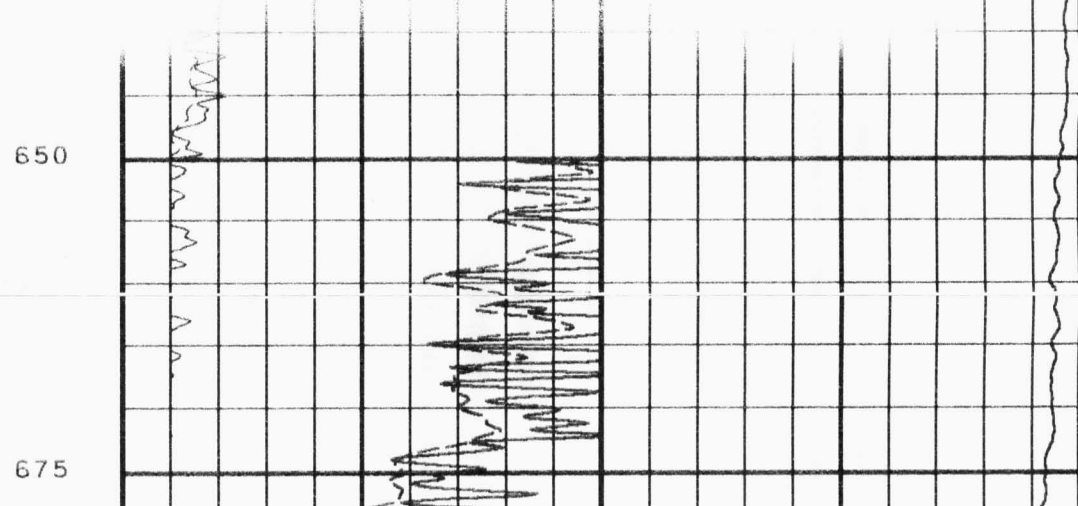
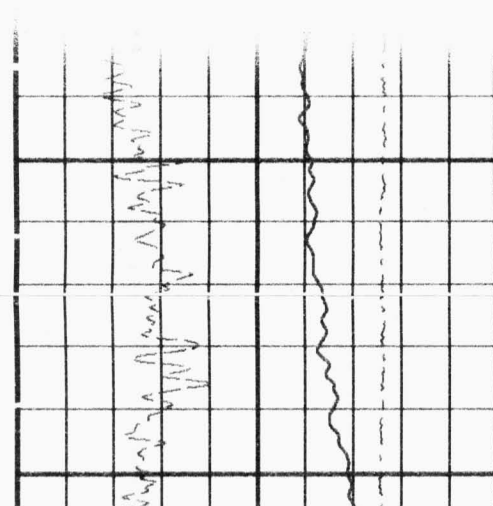
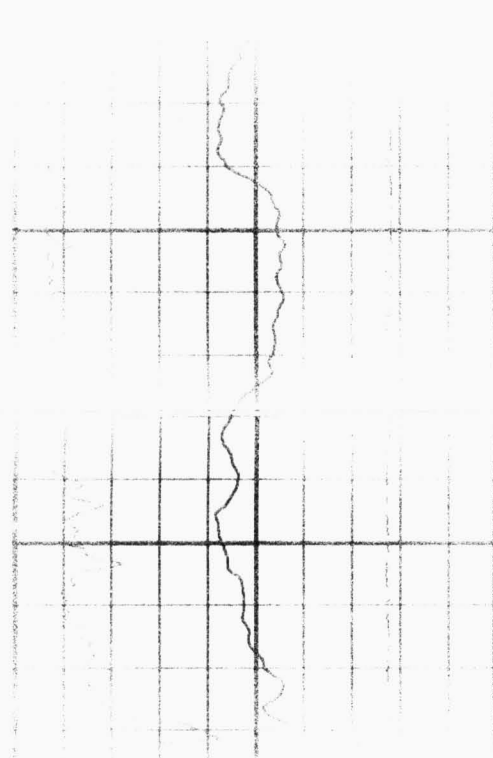
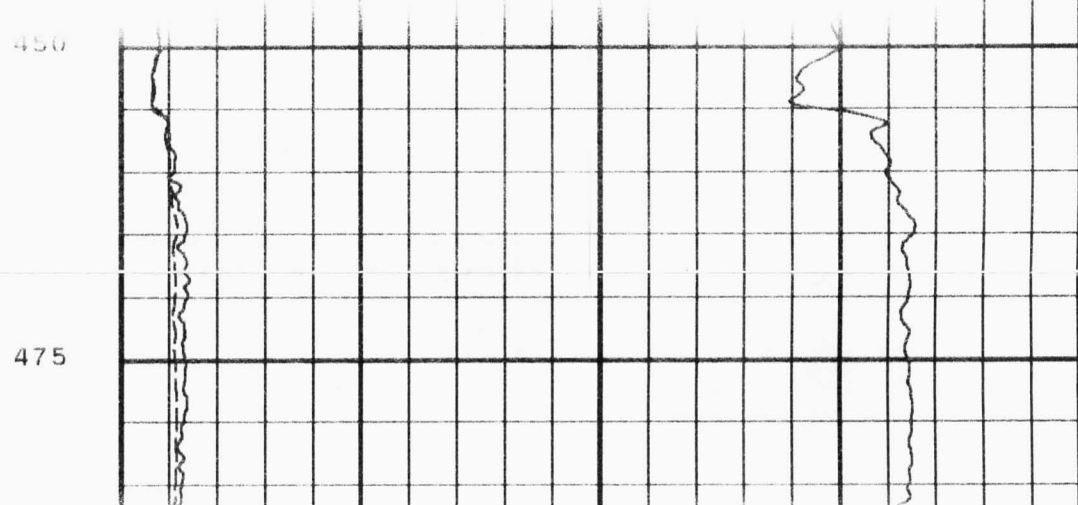
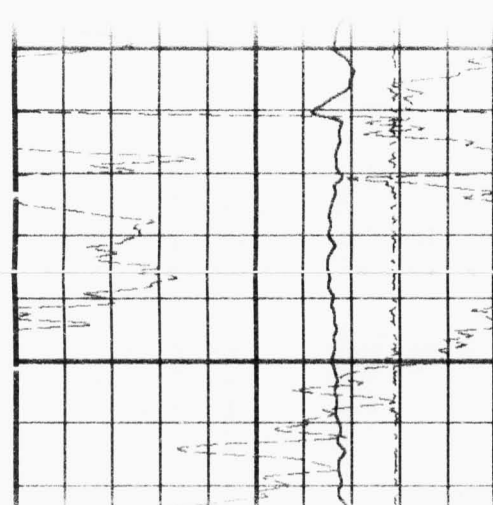
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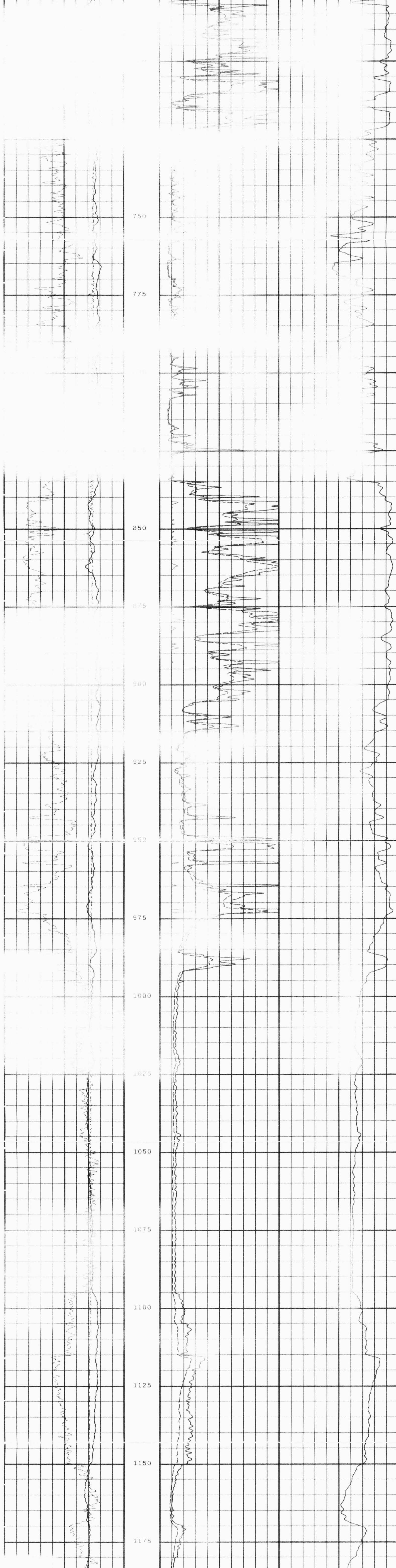
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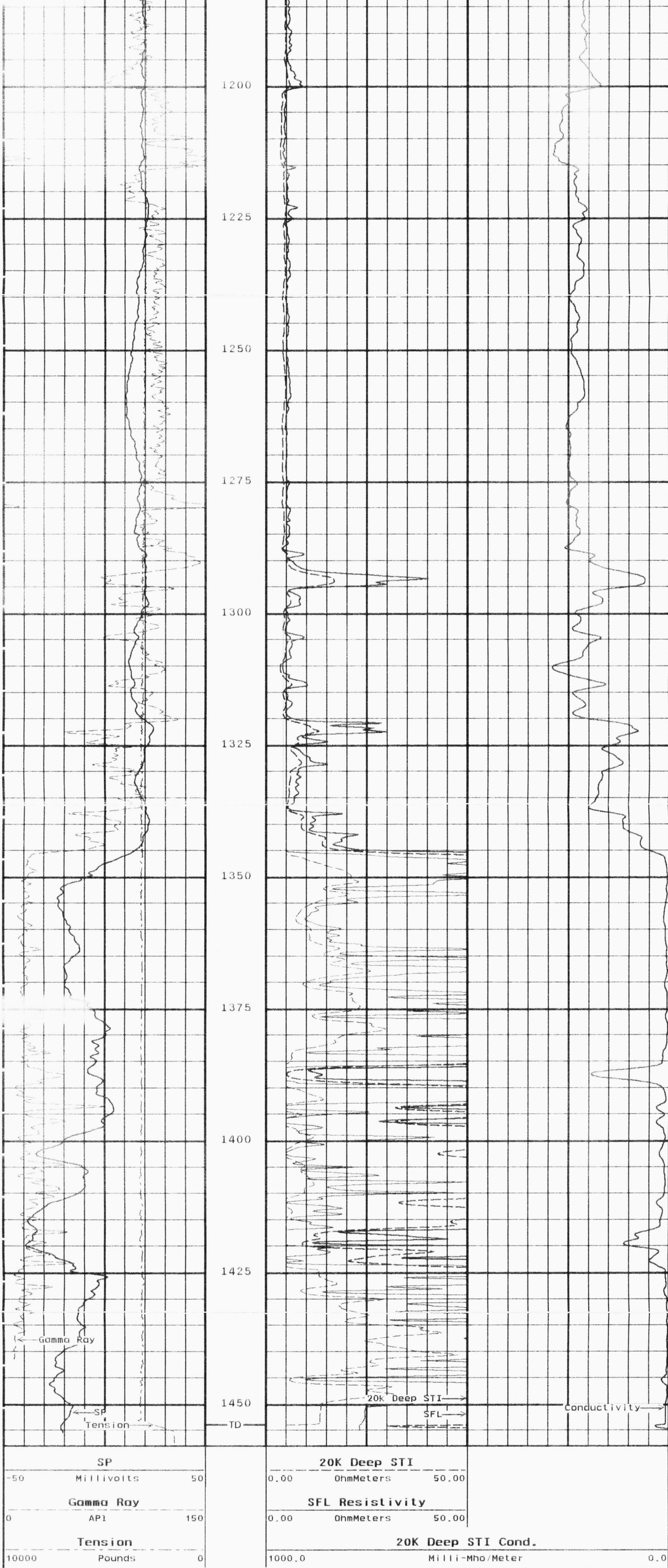
263

GO BACK

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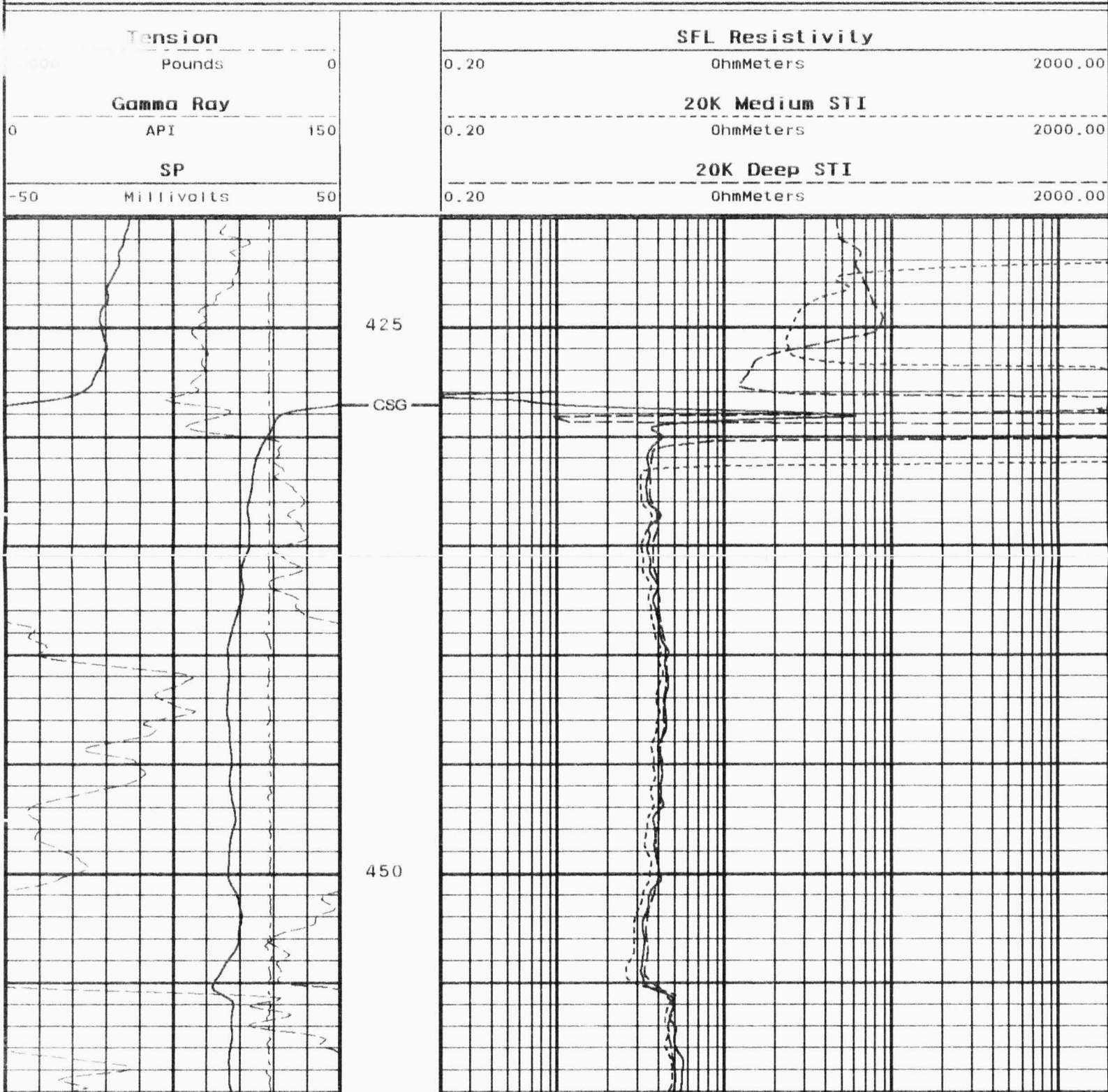


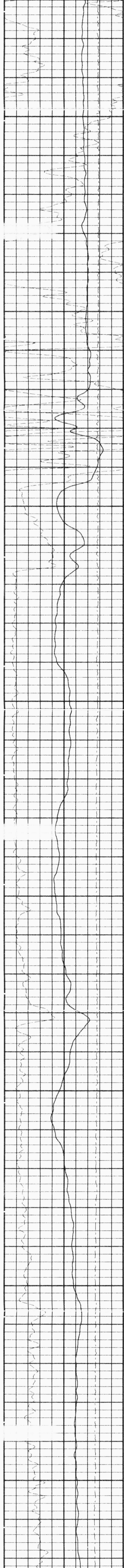




START DEPTH: 1458.0 DIRECTION: UP DATE: 03/15/2004 TIME: 03:51 MODE: TRACE PLAYBACK			
30018057 STIMP			
MAIN PASS			
DEPTH SCALE: 1:600		VERSION: 2004.02.11.263	
SYSTEM CONSTANTS			
NAME	DESCRIPTION	VALUE	UNITS
TDL	TD-Logger	1454.00	Meters
BS	Bit Size	200.0	Millimeters
BHT	Bottom Hole Temp	57.0	DegreesCentigrade

MAIN PASS 1:240 SCALE		REMARKS	
DEPTH SCALE: 1:240		VERSION: 2004.02.11.263	
MAIN PASS			
30018057 STIMP			
FINISH DEPTH: 0.0	Meters	DIRECTION: UP	DATE: TIME: MODE: TRACE PLAYBACK





475

500

525

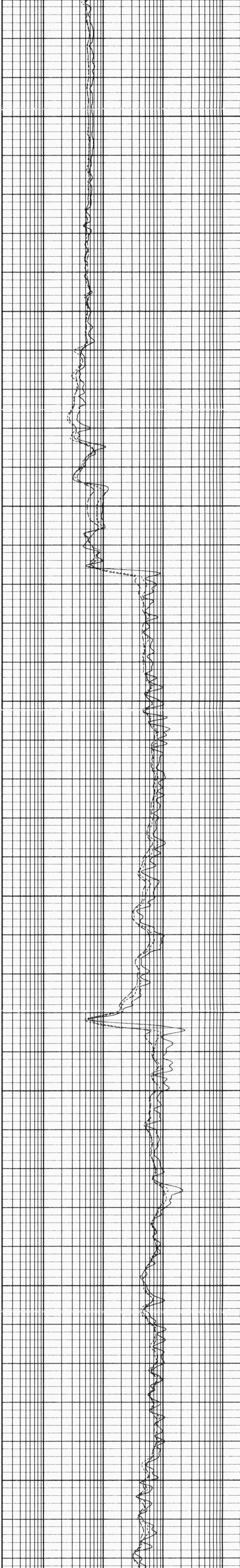
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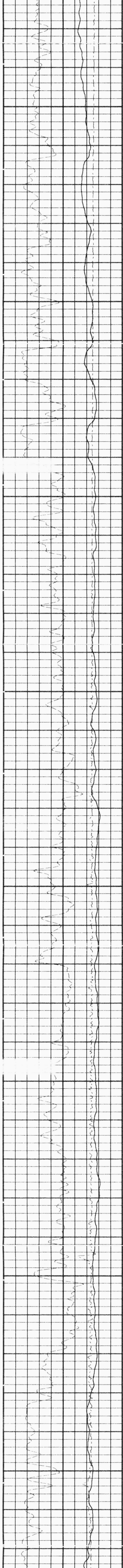
575

600

625

650





675

700

725

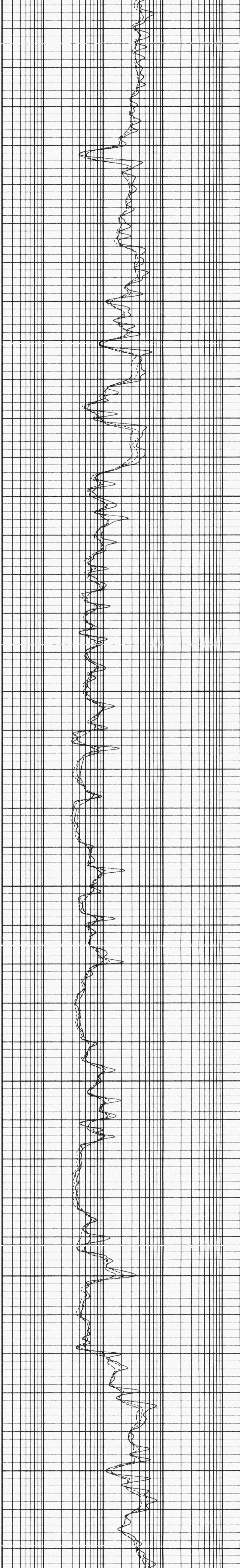
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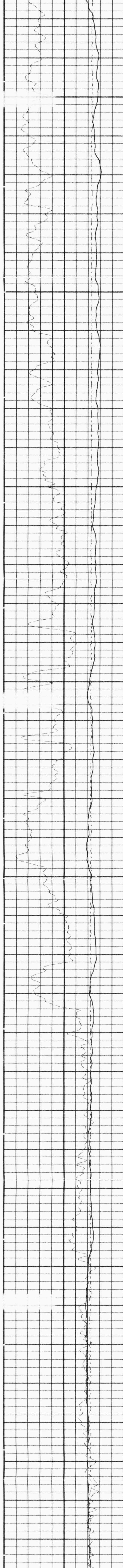
775

800

825

850





875

900

925

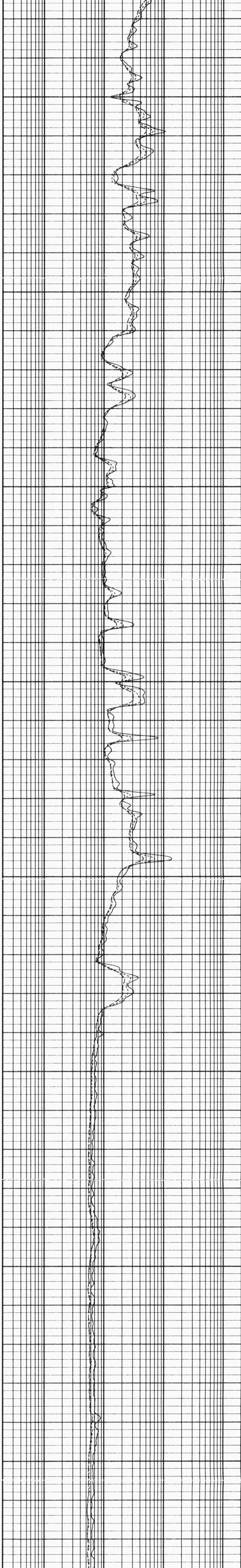
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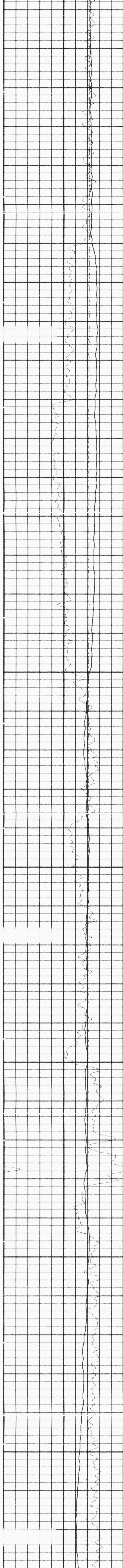
975

1000

1025

1050





1075

1100

1125

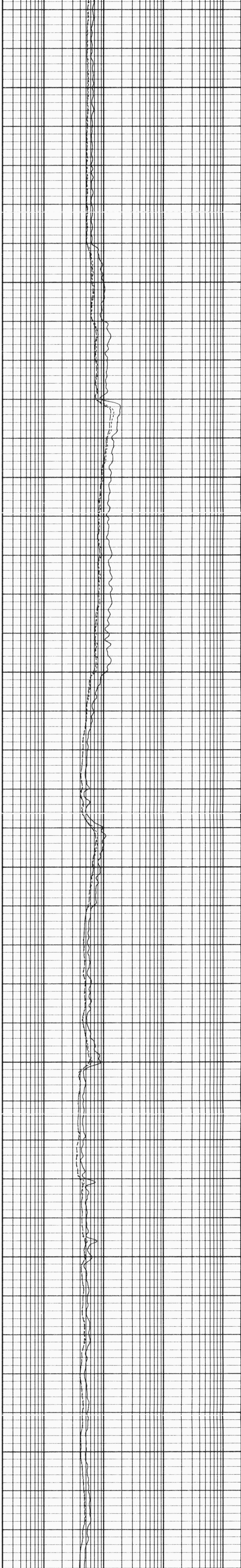
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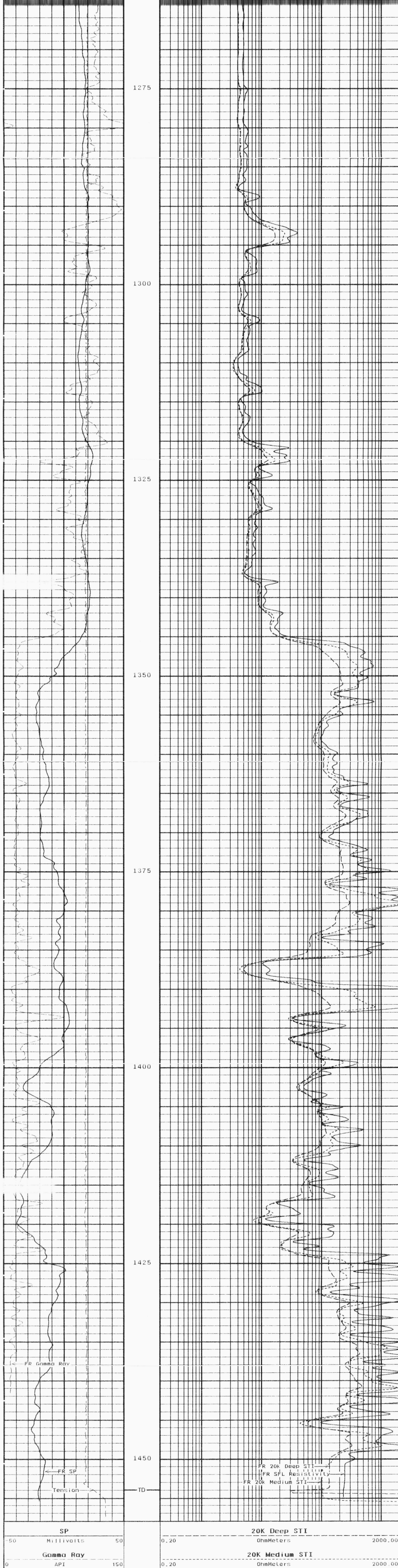
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1200

1225

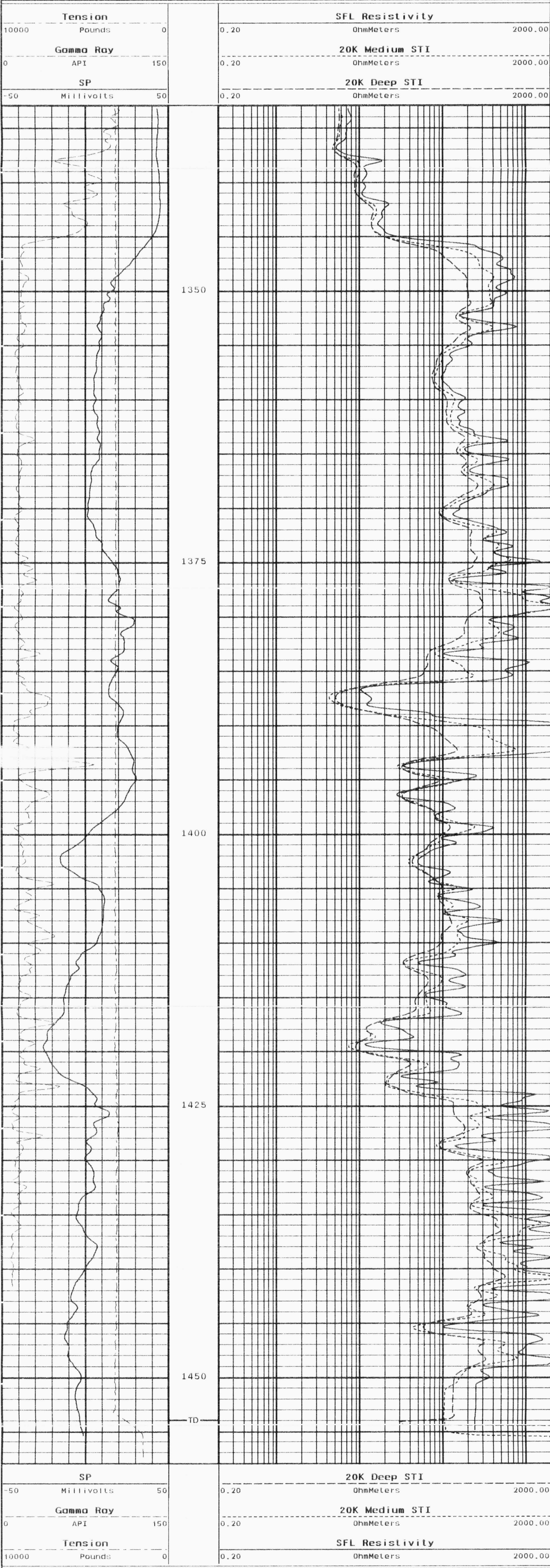
1250





Tension		SFL Resistivity	
10000	Pounds	0	0.20 OhmMeters 2000.00
START DEPTH: 1458.0 DIRECTION: UP DATE: 03/15/2004 TIME:03:51 MODE: TRACE PLAYBACK 30018057 STIMP			
MAIN PASS			
DEPTH SCALE: 1:240		VERSION: 2004.02.11.263	
SYSTEM CONSTANTS			
NAME	DESCRIPTION	VALUE	UNITS
TDL	TD-Logger	1454.00	Meters
BS	Bit Size	200.0	Millimeters
BHT	Bottom Hole Temp	57.0	DegreesCentigrade

REPEAT PASS 1:240 SCALE		REMARKS	
DEPTH SCALE: 1:240		VERSION: 2004.02.11.263	
REPEAT PASS			
30018057 STIRP			
FINISH DEPTH: 0.0 Meters DIRECTION: UP DATE: TIME: MODE: TRACE PLAYBACK			



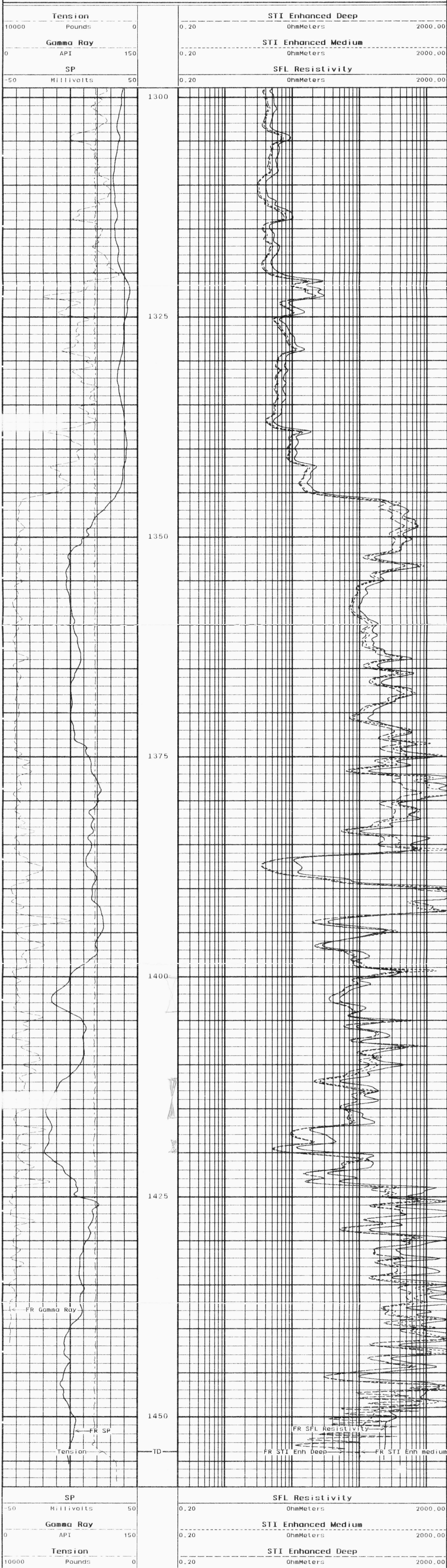
REPEAT PASS 1:240 SCALE		REMARKS	
DEPTH SCALE: 1:240		VERSION: 2004.02.11.263	
REPEAT PASS			
30018057 STIRP			
FINISH DEPTH: 0.0 Meters DIRECTION: UP DATE: 03/15/2004 TIME:02:15 MODE: TRACE PLAYBACK			

ENHANCED INDUCTION MAIN PASS 1:240 SCALE		REMARKS	
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VERSION: 2004-02-11-263

30018057 STIMP enh

FINISH DEPTH: 0.0 Meters DIRECTION: UP DATE: TIME: MODE: TRACE PLAYBACK



START DEPTH: 1458.0 DIRECTION: UP DATE: 03/15/2004 TIME: 02:42 MODE: TRACE PLAYBACK
30018057 STIMP_enh

ENHANCED PASS

DEPTH SCALE: 1:240

VERSION: 2004-02-11-263

SYSTEM CONSTANTS			
NAME	DESCRIPTION	VALUE	UNITS
ALPHA	Alpha	0.001	1/deg
BETA	Beta	0.001	1/deg
GAMMA	Gamma	0.001	1/deg
DELTA	Delta	0.001	1/deg
EPSILON	Epsilon	0.001	1/deg
ZETA	Zeta	0.001	1/deg
ETA	Eta	0.001	1/deg
THETA	Theta	0.001	1/deg
IOTA	Iota	0.001	1/deg
KAPPA	Kappa	0.001	1/deg
LAMDA	Lambda	0.001	1/deg
MU	Mu	0.001	1/deg
NU	Nu	0.001	1/deg
XI	Xi	0.001	1/deg
OMEGA	Omega	0.001	1/deg
PHI	Phi	0.001	1/deg
CHI	Chi	0.001	1/deg
PSI	Psi	0.001	1/deg
TAU	Tau	0.001	1/deg
UPSILON	Upsilon	0.001	1/deg
PHI	Phi	0.001	1/deg
CHI	Chi	0.001	1/deg
PSI	Psi	0.001	1/deg
TAU	Tau	0.001	1/deg
UPSILON	Upsilon	0.001	1/deg
PHI	Phi	0.001	1/deg
CHI	Chi	0.001	1/deg
PSI	Psi	0.001	1/deg
TAU	Tau	0.001	1/deg
UPSILON	Upsilon	0.001	1/deg
PHI	Phi	0.001	1/deg
CHI	Chi	0.001	1/deg
PSI	Psi	0.001	1/deg
TAU	Tau	0.001	1/deg
UPSILON	Upsilon	0.001	1/deg
PHI	Phi	0.001	1/deg
CHI	Chi	0.001	1/deg
PSI	Psi	0.001	1/deg
TAU	Tau	0.001	1/deg
UPSILON	Upsilon	0.001	1/deg
PHI	Phi	0.001	1/deg
CHI	Chi	0.001	1/deg
PSI	Psi	0.001	1/deg
TAU	Tau	0.001	1/deg
UPSILON	Upsilon	0.001	1/deg
PHI	Phi	0.001	1/deg
CHI	Chi	0.001	1/deg
PSI	Psi	0.001	1/deg
TAU	Tau	0.001	1/deg
UPSILON	Upsilon	0.001	1/deg
PHI	Phi	0.001	1/deg
CHI	Chi	0.001	1/deg
PSI	Psi	0.001	1/deg
TAU	Tau	0.001	1/deg
UPSILON	Upsilon	0.001	1/deg
PHI	Phi	0.001	1/deg
CHI	Chi	0.001	1/deg
PSI	Psi	0.001	1/deg
TAU	Tau	0.001	1/deg
UPSILON	Upsilon	0.001	1/deg
PHI	Phi	0.001	1/deg
CHI	Chi	0.001	1/deg
PSI	Psi	0.001	1/deg
TAU	Tau	0.001	1/deg
UPSILON	Upsilon	0.001	1/deg
PHI	Phi	0.001	1/deg
CHI	Chi	0.001	1/deg
PSI	Psi	0.001	1/deg
TAU	Tau	0.001	1/deg
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PHI	Phi	0.001	1/deg
CHI	Chi	0.001	1/deg
PSI	Psi	0.001	1/deg
TAU	Tau	0.001	1/deg
UPSILON	Upsilon	0.001	1/deg
PHI	Phi	0.001	1/deg
CHI	Chi	0.001	1/deg
PSI	Psi	0.001	1/deg
TAU	Tau	0.001	1/deg
UPSILON	Upsilon	0.001	1/deg
PHI	Phi	0.001	1/deg
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PSI	Psi	0.001	1/deg
TAU	Tau	0.001	1/deg
UPSILON	Upsilon	0.001	1/deg
PHI	Phi	0.001	1/deg
CHI	Chi	0.001	1/deg
PSI	Psi	0.001	1/deg
TAU	Tau	0.001	1/deg
UPSILON	Upsilon	0.001	1/deg
PHI	Phi	0.001	1/deg
CHI	Chi	0.001	1/deg
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TAU	Tau	0.001	1/deg
UPSILON	Upsilon	0.001	1/deg
PHI	Phi	0.001	1/deg
CHI	Chi	0.001	1/deg
PSI	Psi	0.001	1/deg
TAU	Tau	0.001	1/deg
UPSILON	Upsilon	0.001	1/deg
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UPSILON	Upsilon	0.001	1/deg
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PSI	Psi	0.001	1/deg
TAU	Tau	0.001	1/deg
UPSILON	Upsilon	0.001	1/deg
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CHI	Chi	0.001	1/deg
PSI	Psi	0.001	1/deg
TAU	Tau	0.001	1/deg
UPSILON	Upsilon	0.001	1/deg
PHI	Phi	0.001	1/deg
CHI	Chi	0.001	1/deg
PSI	Psi	0.001	1/deg
TAU	Tau	0.001	1/deg
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TAU	Tau	0.001	1/deg
UPSILON	Upsilon	0.001	1/deg
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TAU	Tau	0.001	1/deg
UPSILON	Upsilon	0.001	1/deg
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PSI	Psi	0.001	1/deg
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UPSILON	Upsilon	0.001	1/deg
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PSI	Psi	0.001	1/deg
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UPSILON	Upsilon	0.001	1/deg
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CHI	Chi	0.001	1/deg
PSI	Psi	0.001	1/deg
TAU	Tau	0.001	1/deg
UPSILON	Upsilon	0.001	1/deg
PHI	Phi	0.001	1/deg
CHI	Chi	0.001	1/deg
PSI	Psi	0.001	1/deg
TAU	Tau	0.001	1/deg
UPSILON	Upsilon	0.001	1/deg
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CHI	Chi	0.001	1/deg
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UPSILON	Upsilon	0.001	1/deg
PHI	Phi	0.001	1/deg
CHI	Chi	0.001	1/deg
PSI	Psi	0.001	1/deg
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UPSILON	Upsilon	0.001	1/deg
PHI	Phi	0.001	1/deg
CHI	Chi	0.001	1/deg
PSI	Psi	0.001	1/deg
TAU	Tau	0.001	1/deg
UPSILON	Upsilon	0.001	1/deg
PHI	Phi	0.001	1/deg
CHI	Chi	0.001	1/deg
PSI	Psi	0.001	1/deg
TAU	Tau	0.001	1/deg
UPSILON	Upsilon	0.001	1/deg
PHI	Phi	0.001	1/deg
CHI	Chi	0.001	1/deg
PSI	Psi	0.001	1/deg
TAU	Tau	0.001	1/deg
UPSILON	Upsilon	0.001	1/deg
PHI	Phi	0.001	1/deg
CHI	Chi	0.001	1/deg
PSI	Psi	0.001	

TTL TD-Logger 1454.00 Meters
BSL Bit Size 200.0 Millimeters
BHT Bottom Hole Temp 57.0 DegreesCentigrade

03/14/04 23:42 0.0 M Ver 40211263 Job 30018057

Gamma Ray Before Survey Calibration

Tool Type: UGR-JA Serial No: ugrj191
Calibrator No: RA-20S-737

Background	Calibrator	Standard	Units
111.8	578.2	140.0	API
Delta Counts Per Sec: 466.4		CPS/API = 3.331	

02/02/04 17:29 0.0 M Ver 30725245 Job SHOP

SIMULTANEOUS TRIPLE INDUCTION SHOP CALIBRATION

TOOL TYPE: STI-AC SONDE SERIAL NO: STSB157
ELECTRONICS SERIAL NO: STCB157

LOOP CALIBRATION: Gain and Phase Error of Internal Reference

	10KHz		20KHz		40KHz	
	DEEP	MEDIUM	DEEP	MEDIUM	DEEP	MEDIUM
Gain:	1.028	1.004	1.030	1.008	1.022	1.008
Upper Limit:	1.100	1.100	1.100	1.100	1.100	1.100
Lower Limit:	0.900	0.900	0.900	0.900	0.900	0.900

Phase Error(degrees):	0.82	0.51	1.15	0.87	0.80	0.65
Upper Limit:	10.00	10.00	10.00	10.00	10.00	10.00
Lower Limit:	-10.00	-10.00	-10.00	-10.00	-10.00	-10.00

SONDE ERROR:

	10KHz		20KHz		40KHz	
	R	X	R	X	R	X
Deep:	7.5	1.9	-0.0	-3.1	3.0	-11.1
Upper Limit:	20.0	100.0	20.0	100.0	20.0	100.0
Lower Limit:	-20.0	-100.0	-20.0	-100.0	-20.0	-100.0
Medium:	-1.2	-18.0	-2.5	-27.6	6.0	-50.6
Upper Limit:	20.0	150.0	20.0	150.0	20.0	150.0
Lower Limit:	-20.0	-150.0	-20.0	-150.0	-20.0	-150.0

SHOP ELECTRONICS CALIBRATION:

	10KHz		20KHz		40KHz	
	R	X	R DEEP	X	R	X
Zero Error(mho/m):	18.0	0.5	8.3	11.7	3.4	11.3
Upper Limit:	100.0	100.0	100.0	100.0	100.0	100.0
Lower Limit:	-100.0	-100.0	-100.0	-100.0	-100.0	-100.0
Gain:	0.996	0.975	1.001	0.969	1.004	0.988
Upper Limit:	1.100	1.100	1.100	1.100	1.100	1.100
Lower Limit:	0.900	0.900	0.900	0.900	0.900	0.900
Phase Error(degrees):	-1.14	-0.07	0.12	-0.52	1.15	-0.28
Upper Limit:	10.00	10.00	10.00	10.00	10.00	10.00
Lower Limit:	-10.00	-10.00	-10.00	-10.00	-10.00	-10.00

Zero Error(mho/m):	18.1	0.8	8.3	12.1	3.2	11.1
Upper Limit:	100.0	100.0	100.0	100.0	100.0	100.0
Lower Limit:	-100.0	-100.0	-100.0	-100.0	-100.0	-100.0

Gain:	0.996	0.975	0.999	0.969	1.002	0.988
Upper Limit:	1.100	1.100	1.100	1.100	1.100	1.100
Lower Limit:	0.900	0.900	0.900	0.900	0.900	0.900

Phase Error(degrees):	-1.13	-0.08	0.08	-0.52	1.12	-0.28
Upper Limit:	10.00	10.00	10.00	10.00	10.00	10.00
Lower Limit:	-10.00	-10.00	-10.00	-10.00	-10.00	-10.00

SFL CALIBRATIONS:

	OFFSET	MIN	MAX	UNITS	GAIN	MIN	MAX
Voltage:	-2.5	-100.0	100.0	uV	1.037	0.800	1.200
Current:	-0.3	-25.0	25.0	uA	1.014	0.800	1.200

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SIMULTANEOUS TRIPLE INDUCTION BEFORE SURVEY CALIBRATION

TOOL TYPE: STI-AC SONDE SERIAL NO: STSB157
ELECTRONICS SERIAL NO: STCB157

	10KHz		20KHz		40KHz	
	R	X	R DEEP	X	R	X
Zero Error(mho/m):	22.9	2.7	8.6	12.4	5.2	11.3
Upper Limit:	100.0	100.0	100.0	100.0	100.0	100.0
Lower Limit:	-100.0	-100.0	-100.0	-100.0	-100.0	-100.0
Gain:	0.994	0.975	1.001	0.967	1.003	0.987
Upper Limit:	1.100	1.100	1.100	1.100	1.100	1.100
Lower Limit:	0.900	0.900	0.900	0.900	0.900	0.900

Phase Error(degrees):	-1.25	-0.07	-0.10	-0.55	0.74	-0.37
Upper Limit:	10.00	10.00	10.00	10.00	10.00	10.00
Lower Limit:	-10.00	-10.00	-10.00	-10.00	-10.00	-10.00

Zero Error(mho/m):	22.3	2.9	8.9	12.5	4.6	11.6
Upper Limit:	100.0	100.0	100.0	100.0	100.0	100.0
Lower Limit:	-100.0	-100.0	-100.0	-100.0	-100.0	-100.0

Gain:	0.995	0.975	0.998	0.968	0.999	0.987
Upper Limit:	1.100	1.100	1.100	1.100	1.100	1.100
Lower Limit:	0.900	0.900	0.900	0.900	0.900	0.900

Phase Error(degrees):	-1.22	-0.05	-0.21	-0.56	0.72	-0.35
Upper Limit:	10.00	10.00	10.00	10.00	10.00	10.00
Lower Limit:	-10.00	-10.00	-10.00	-10.00	-10.00	-10.00

SFL CALIBRATIONS:

	OFFSET	MIN	MAX	UNITS	GAIN	MIN	MAX
Voltage:	-2.0	-100.0	100.0	uV	1.036	0.800	1.200
Current:	-0.3	-25.0	25.0	uA	1.013	0.800	1.200

03/15/04 03:51 355.0 M Ver 40211263 Job 30018057

SIMULTANEOUS TRIPLE INDUCTION AFTER SURVEY CALIBRATION

TOOL TYPE: STI-AC SONDE SERIAL NO: STSB157
ELECTRONICS SERIAL NO: STCB157

	10KHz		20KHz		40KHz	
	R	X	R DEEP	X	R	X
Zero Error(mho/m):	29.4	-5.8	11.4	10.1	8.0	9.8
Upper Limit:	100.0	100.0	100.0	100.0	100.0	100.0
Lower Limit:	-100.0	-100.0	-100.0	-100.0	-100.0	-100.0
Gain:	0.993	0.973	0.998	0.966	1.000	0.986
Upper Limit:	1.100	1.100	1.100	1.100	1.100	1.100
Lower Limit:	0.900	0.900	0.900	0.900	0.900	0.900

Phase Error(degrees):	-1.16	-0.04	0.06	-0.50	1.20	-0.27
Upper Limit:	10.00	10.00	10.00	10.00	10.00	10.00
Lower Limit:	-10.00	-10.00	-10.00	-10.00	-10.00	-10.00

Zero Error(mho/m):	29.7	-6.0	11.7	10.3	8.2	9.9
Upper Limit:	100.0	100.0	100.0	100.0	100.0	100.0
Lower Limit:	-100.0	-100.0	-100.0	-100.0	-100.0	-100.0

Gain:	0.993	0.973	0.997	0.966	0.997	0.986
Upper Limit:	1.100	1.100	1.100	1.100	1.100	1.100
Lower Limit:	0.900	0.900	0.900	0.900	0.900	0.900

Phase Error(degrees):	-1.17	-0.05	-0.15	-0.50	0.83	-0.29
Upper Limit:	10.00	10.00	10.00	10.00	10.00	10.00
Lower Limit:	-10.00	-10.00	-10.00	-10.00	-10.00	-10.00

SFL CALIBRATIONS:

	OFFSET	MIN	MAX	UNITS	GAIN	MIN	MAX
Voltage:	-2.5	-100.0	100.0	uV	1.037	0.800	1.200
Current:	-0.4	-25.0	25.0	uA	1.015	0.800	1.200

O.H. Adaptor Head

Weight 18.0 kg
Length 0.74 m
Max. Diameter 8.9 cm
Total Stack Height 745.6 kg in air
Total Stack Length 28.85 m

Crossover

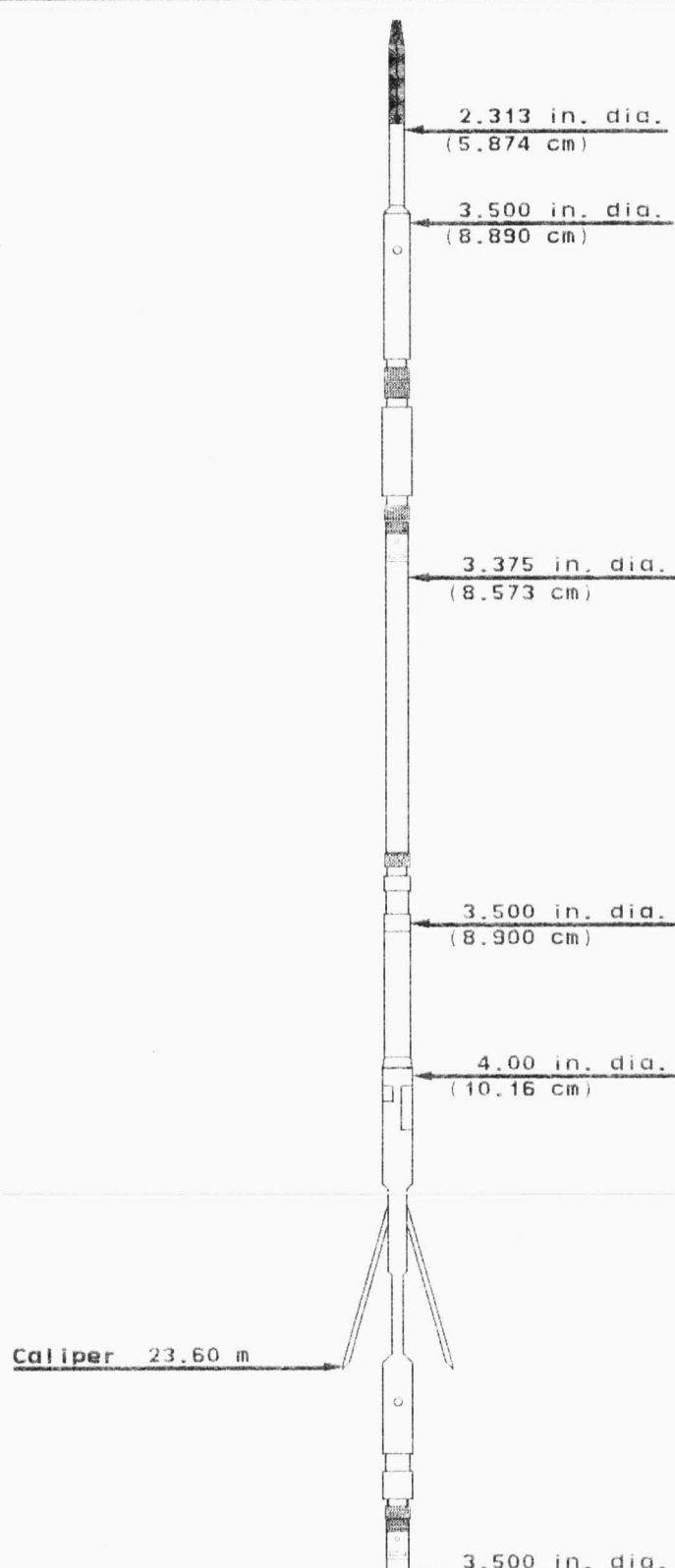
Weight 6.8 kg
Length 0.27 m

Wireline Communications Cartridge

Weight 53.6 kg
Length 2.31 m
Max. Diameter 8.6 cm

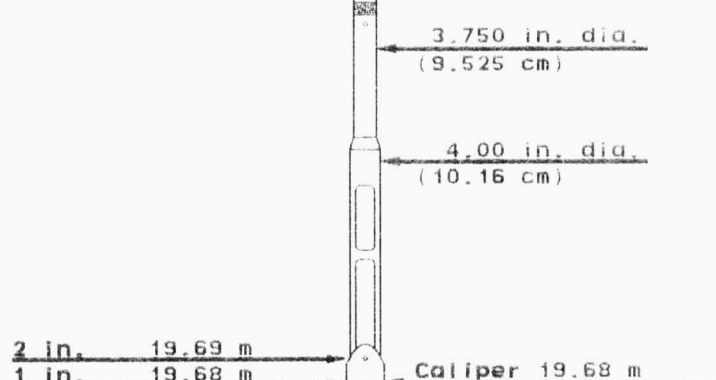
2-Arm Caliper

Weight 79.4 kg
Length 2.40 m
Max. Diameter 10.2 cm



MRT 400

Weight	121.5 kg
Length	4.04 m
Max. Diameter	12.7 cm



SPeD 400 Electronics

Weight	56.7 kg
Length	2.92 m
Max. Diameter	8.6 cm

Universal GR

Weight	37.3 kg
Length	1.40 m
Max. Diameter	8.6 cm

GR 15.77 m

Mandrel Neutron

Weight	45.4 kg
Length	2.07 m
Max. Diameter	8.6 cm

LS cps
PHIN 13.44 m
SS cps

Offset Joint

Weight	3.0 kg
Length	0.36 m
Max. Diameter	8.6 cm

SPeD 400 Pad Section

Weight	141.5 kg
Length	3.38 m
Max. Diameter	11.4 cm

Caliper 9.61 m

Simultaneous Triple Induction

Weight	176.9 kg
Length	8.75 m
Max. Diameter	10.2 cm

ILD 3.28 m

SFL 2.65 m
SP 2.41 m
TLM 2.10 m

Stand - Off

Weight	5.5 kg
Length	0.20 m

COMPANY PARAMOUNT RESOURCES LTD.

WELL PARA ET AL CAMERON C-16

FIELD CAMERON HILLS PROVINCE N.W.T.

PRECISION

Wireline Technologies