



Company:

Japan Agency for Marine–Earth Science and Technology

Well: C0002A

8 1/2 in. LWD Hole

Field: Nankai–Kumano

Rig: Chikyu Country: Japan

Drilling Parameters

Real Time Log 1:500 Measured Depth

Rig: Chikyu  
 Field: Nankai–Kumano  
 Location: Philippines Sea  
 Well: C0002A  
 Company: Japan Agency for Marine–Earth S

Location		Philippines Sea	K.B. Top Drive
Permanent datum:		N 33° 18' 1.125"	G.L. -1964.5 m
Log measured from:		E 136° 38' 10.86"	D.F. 28.5 m
Elevation			
Mean Sea Level			Elev.: 0 m
Drill Floor		28.5 m	above Perm. datum
Depth reference:		Driller's Depth	

Information updated on

17-Oct-07

Logging date	12-Oct-07	Downhole tool numbers	
Run number	1	GVR 42860	SON 42250 PP V694
Bottom log interval	3334.6	SVWD 607	ADN FW52
Top log interval	1936.0 m		
Bit size/type	8.5/PDC		
Type fluid in hole	Seawater	Frame ID:	982/983/984
Density	1.05 SG	Viscosity	165 s
Fluid loss	na	PH	11.6
Source of sample	na		
Rm @ measured temperature	0.08 Ohmm	@	23 °C
Rmf @ measured temperature	na	@	
Rmc @ measured temperature	na	@	
Source Rmf	na	na	
Rm @ E.B.H.T.	na	@	na
Estimated B.H.T.	18 °C		
Recorded by	Marito Jakuji / Chen Xi / QG Ming		
Witnessed by	Kaminishi / Gyuhan		

Do not cut this header. It contains important information

DISCLAIMER

THE USE OF AND RELIANCE UPON THIS RECORDED–DATA BY THE HEREIN NAMED COMPANY (AND ANY OF ITS AFFILIATES, PARTNERS, REPRESENTATIVES, AGENTS, CONSULTANTS AND EMPLOYEES) IS SUBJECT TO THE TERMS AND CONDITIONS AGREED UPON BETWEEN SCHLUMBERGER AND THE COMPANY, INCLUDING: (a) RESTRICTIONS ON USE OF THE RECORDED–DATA; (b) DISCLAIMERS AND WAIVERS OF WARRANTIES AND REPRESENTATIONS REGARDING COMPANY'S USE OF AND RELIANCE UPON THE RECORDED–DATA; AND (c) CUSTOMER'S FULL AND SOLE RESPONSIBILITY FOR ANY INFERENCE DRAWN OR DECISION MADE IN CONNECTION WITH THE USE OF THIS RECORDED–DATA.

OTHER SERVICES FOR RUN 1 Direction and Inclination MWD APWD	OTHER SERVICES FOR RUN	OTHER SERVICES FOR RUN
REMARKS: RUN NUMBER 1 All data provided is from Real Time Acquisition  GR Measurement is corrected for bit size, hole size and mud weight.  ADN was IBS with 8–1/4" OD. Neutron porosity is calculated with sandstone matrix and is corrected for bit size, borehole salinity, temperature and mud hydrogen index.	REMARKS: RUN NUMBER	REMARKS: RUN NUMBER

POOH due to TD called @ 3366.0mBRT

Pump time: 72.0 h

Drill time: 47.5 h

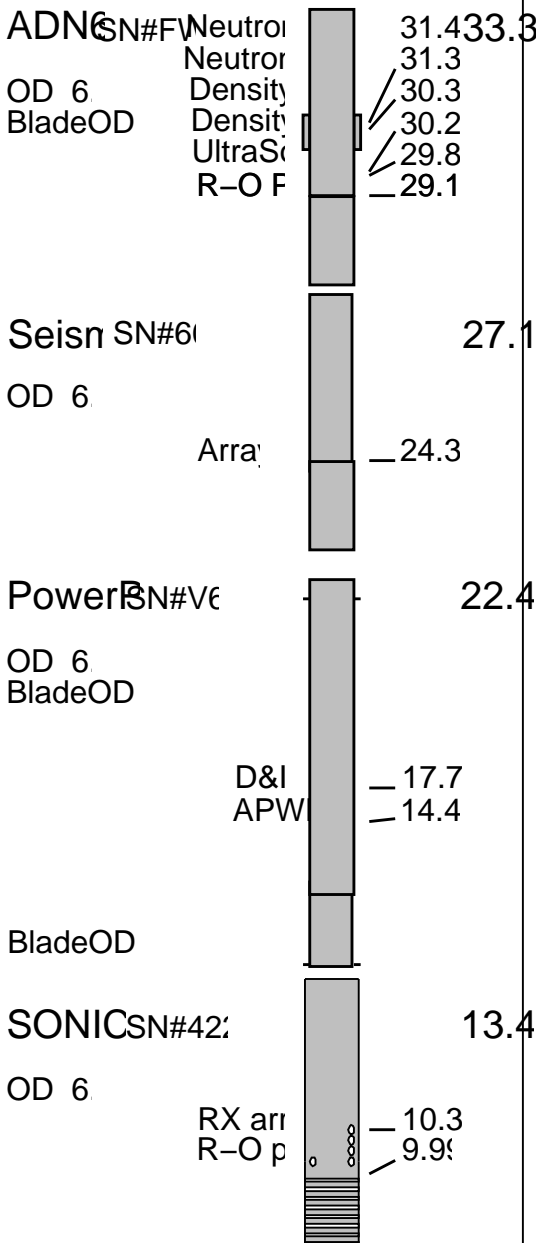
### EQUIPMENT DESCRIPTION

RUN1

RUN

RUN

#### DOWNHOLE E





Filtering GR	3								
Filtering density	3								
Filtering Neutron	3								
Company representative	T. Abe								
Schlumberger D&M Personnel	M. Jakulj	Chen Xi	Q G Ming						

# 314 C0002A RT APWD MD500

IDEAL Version: ID12\_OC\_12 <MD > Vertical Scale: 1:500

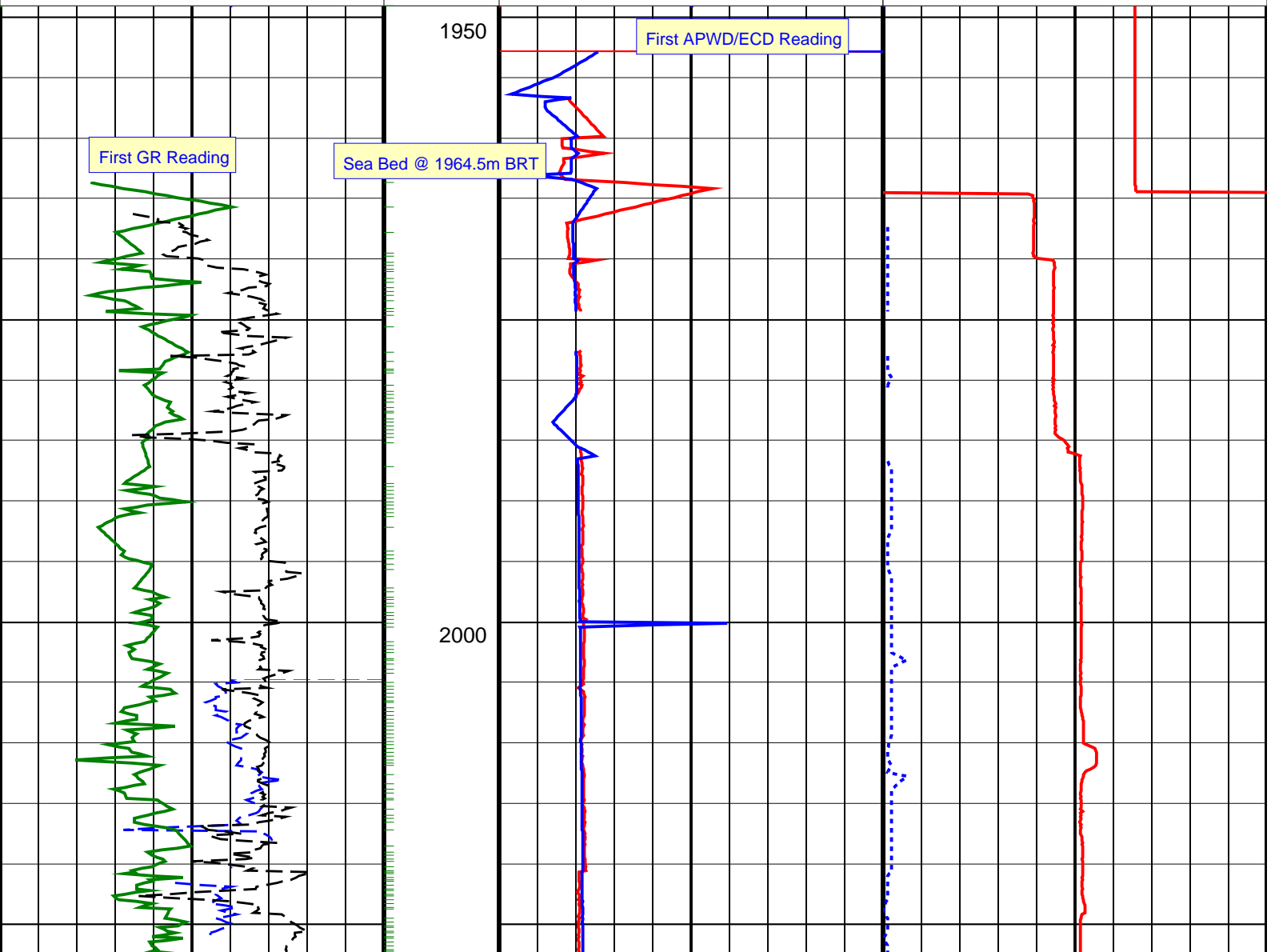
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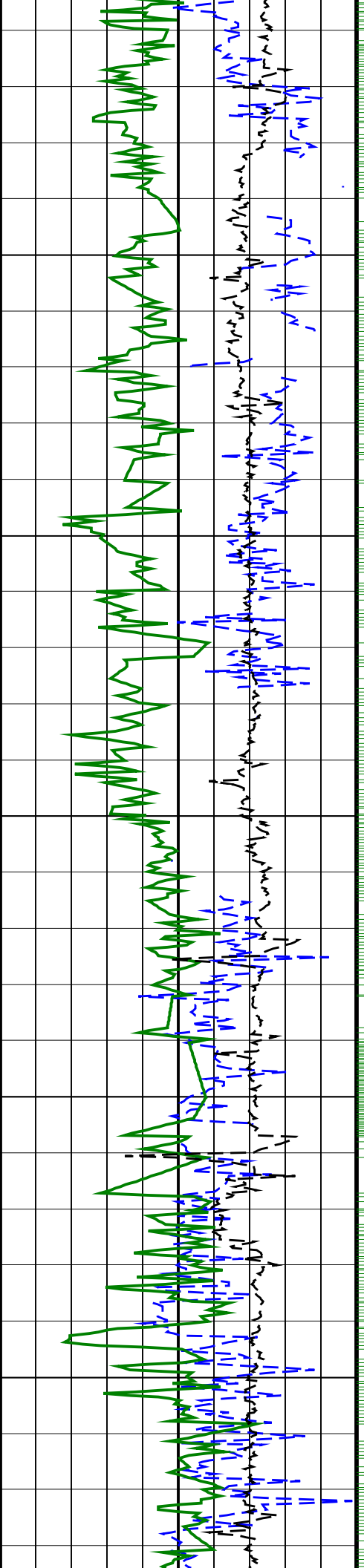
## PIP SUMMARY

GRRR\_R PIP

RAB Gamma Ray, Real-Time (GR_RAB_RT)		
0	(GAPI)	150
Average Borehole Diameter, Real-Time (ADIA_ADN_RT)		
7	(IN)	12
ROP*5 (ROP5)		
100	(M/HR)	0

MWD Equivalent Circulating density (ECD_MWD)		Standpipe Pressure (SPPA)	
8	(LB/G)	1000	(PSI)
10		4000	
MWD Annulus Pressure (APRS_MWD)		MWD Annular Temperature (ATMP_MWD)	
2000	(PSI)	0	(DEGC)
6000		100	

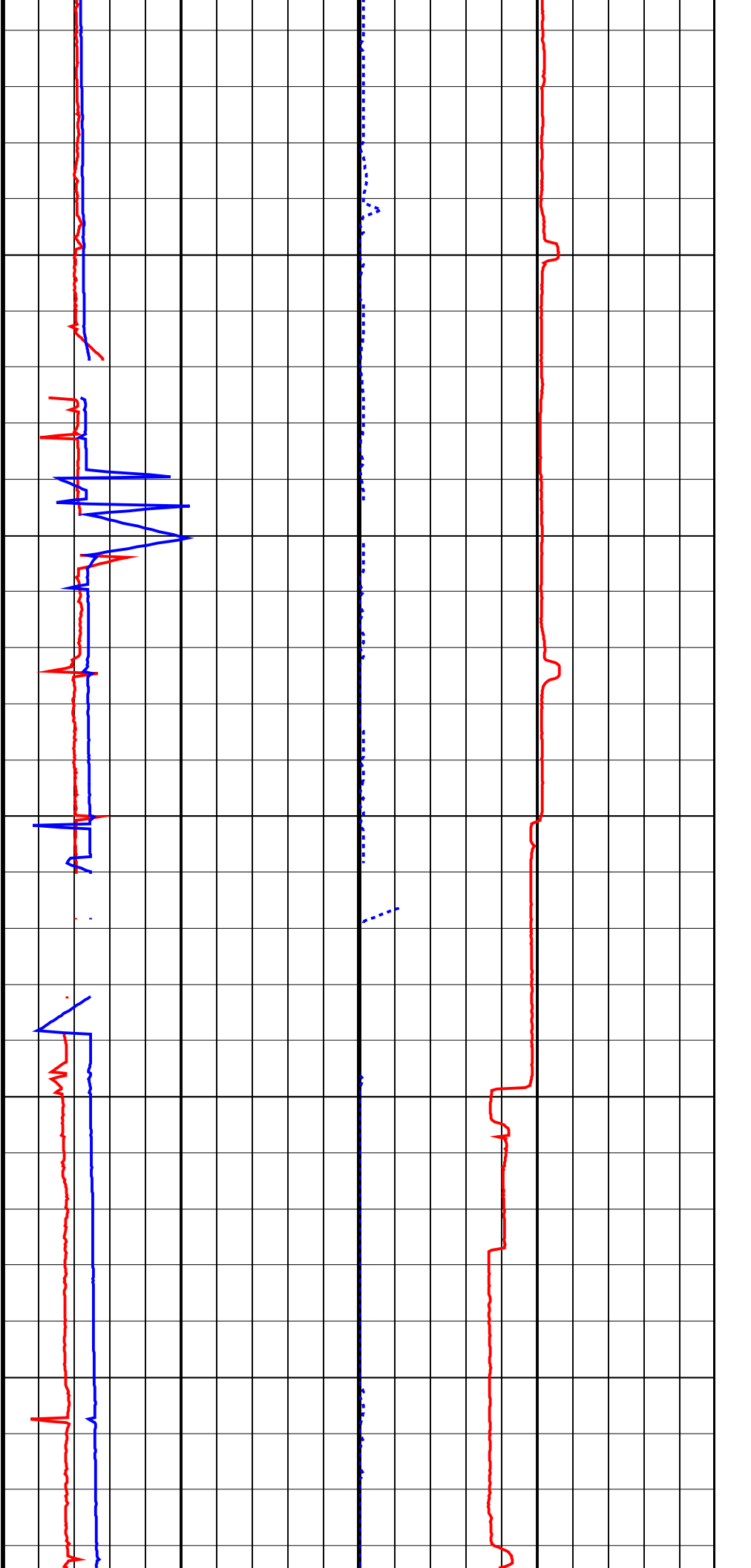




2050

2100

2150



ADIA\_ADN\_RT

GR\_RAB\_RT

ROPS

2200

ECD\_MWD

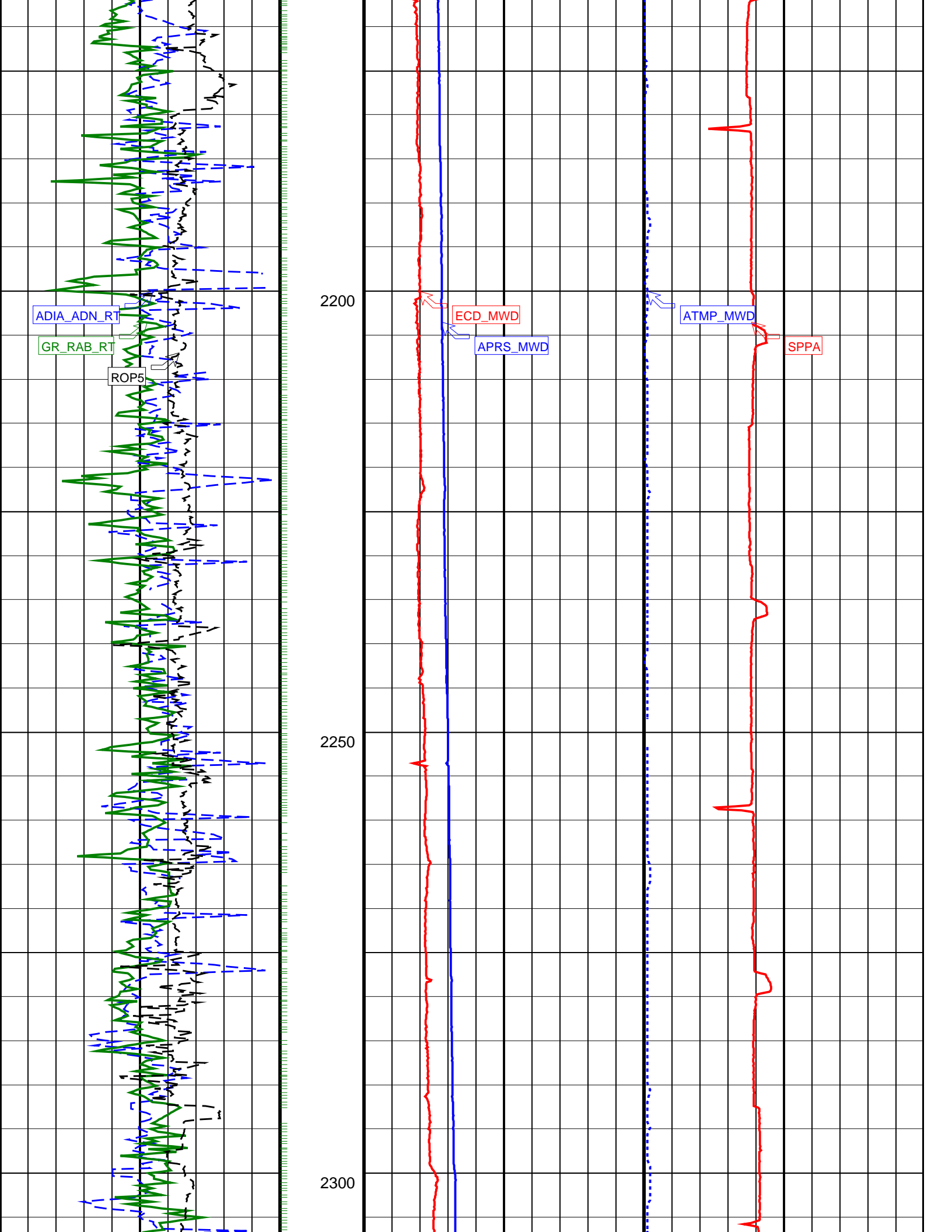
APRS\_MWD

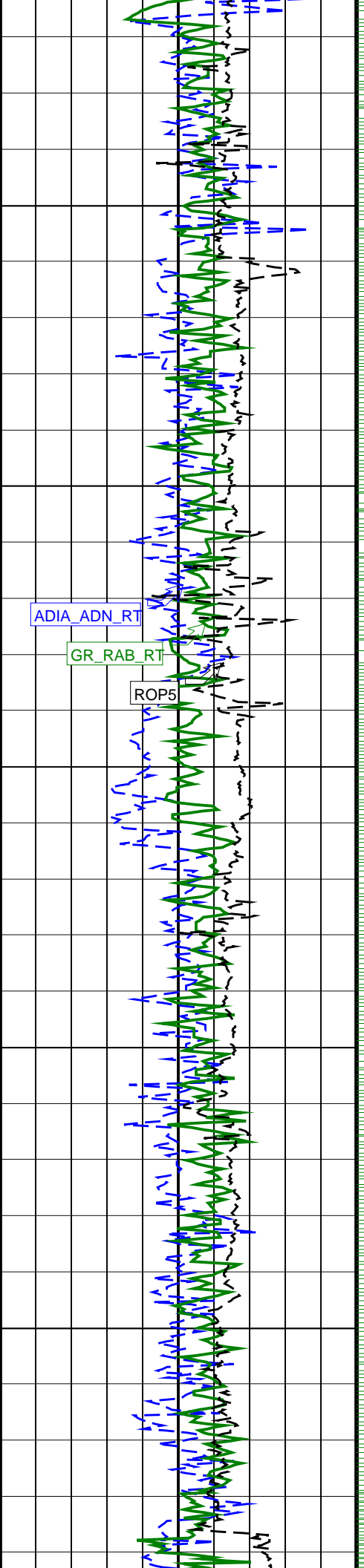
ATMP\_MWD

SPPA

2250

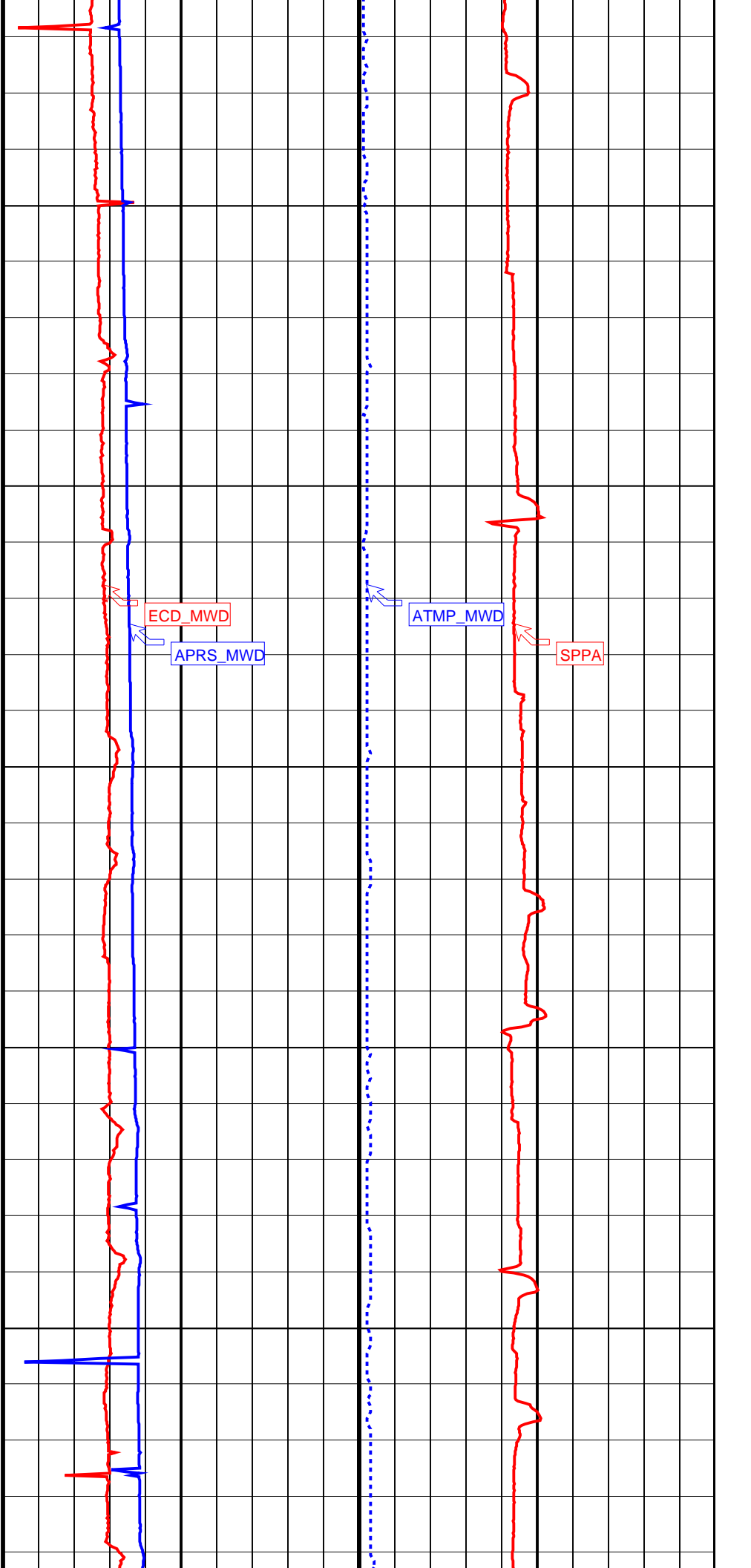
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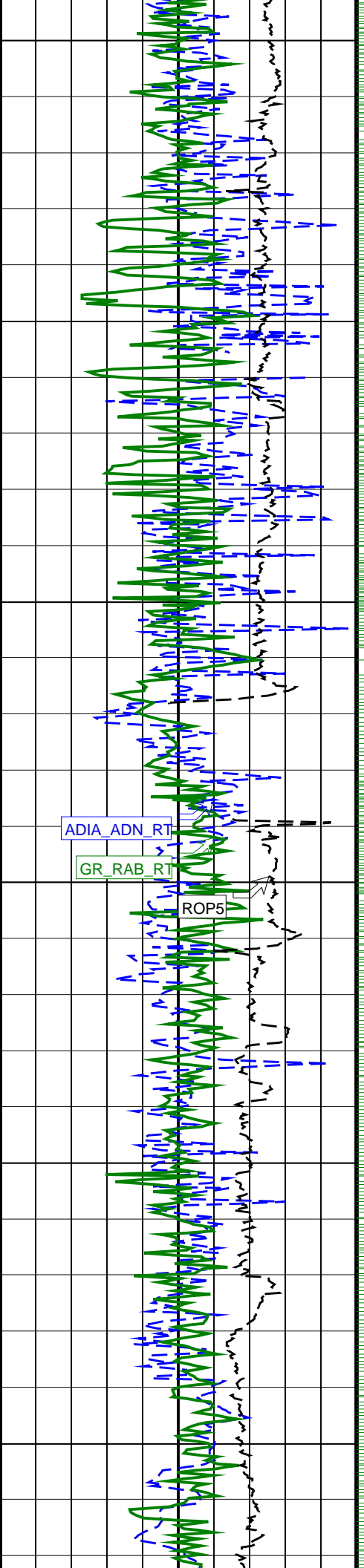




2350

2400

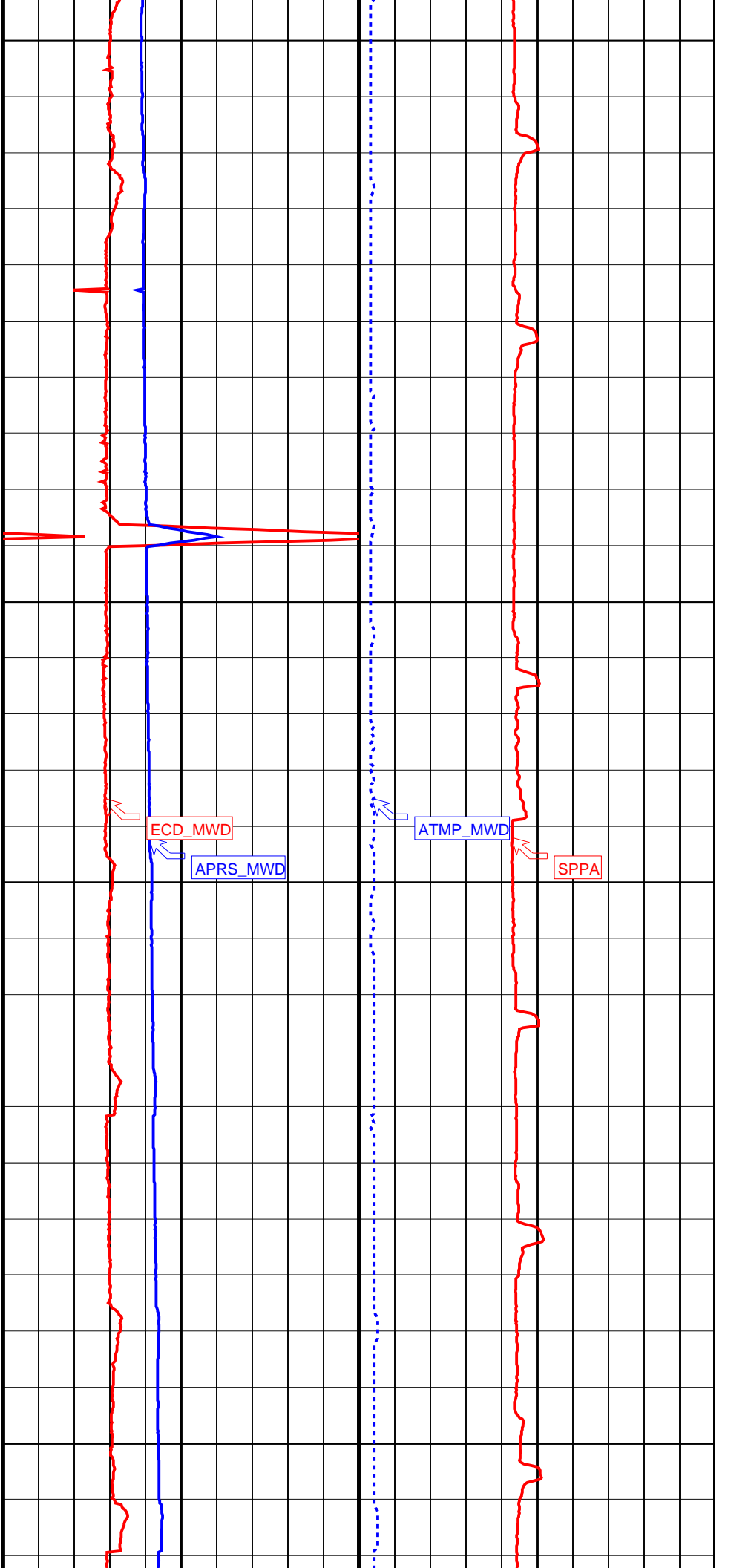




2450

2500

2550



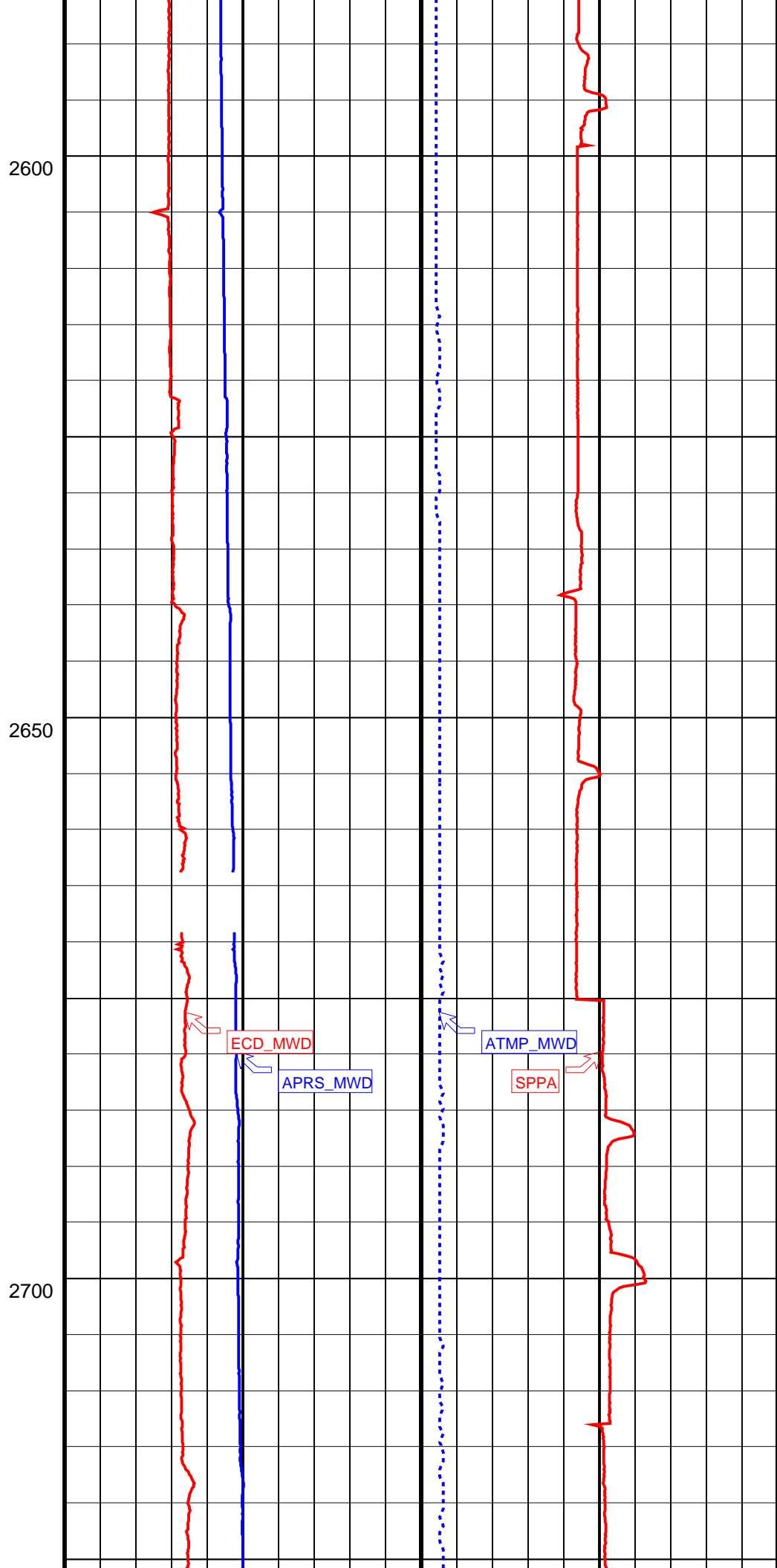
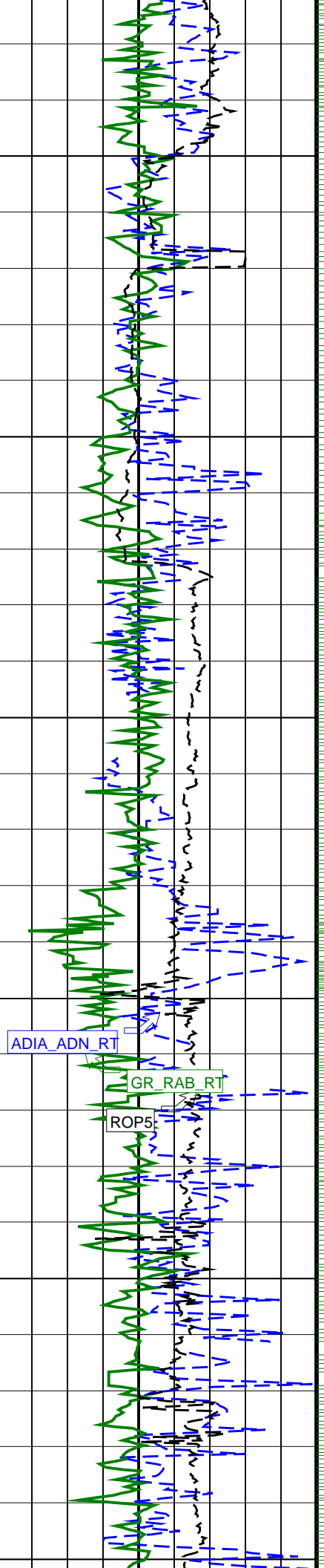
ECD\_MWD

APRS\_MWD

ATMP\_MWD

SPPA





ADIA\_ADN\_RT

GR\_RAB\_RT

ROP5

ECD\_MWD

APRS\_MWD

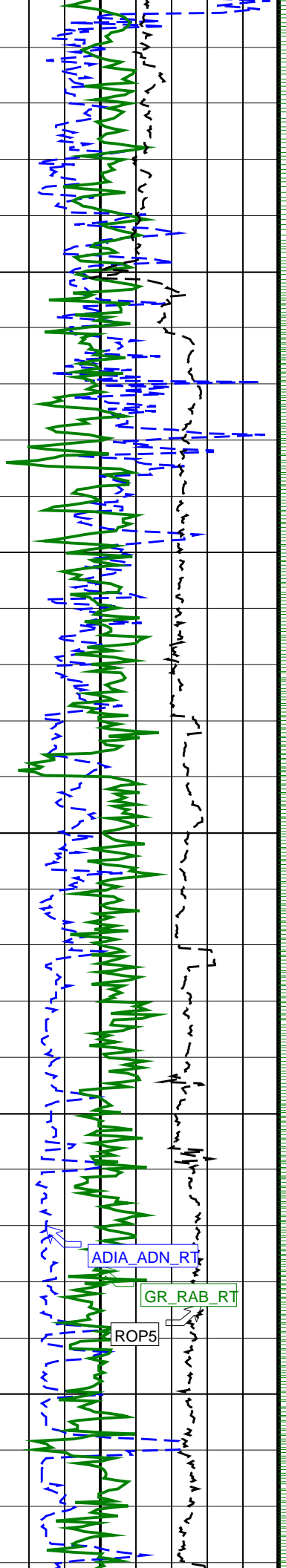
ATMP\_MWD

SPPA

2600

2650

2700



2750

2800

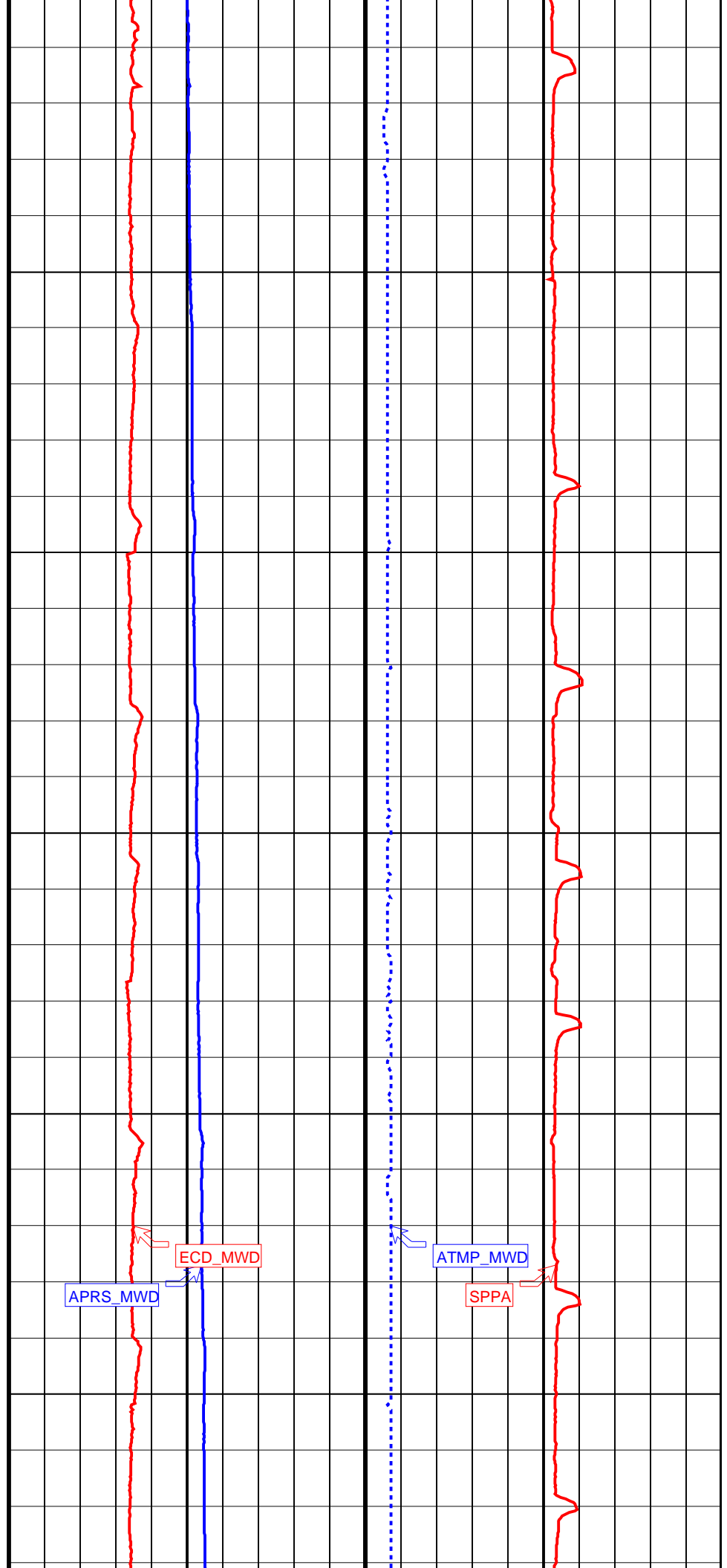
2850

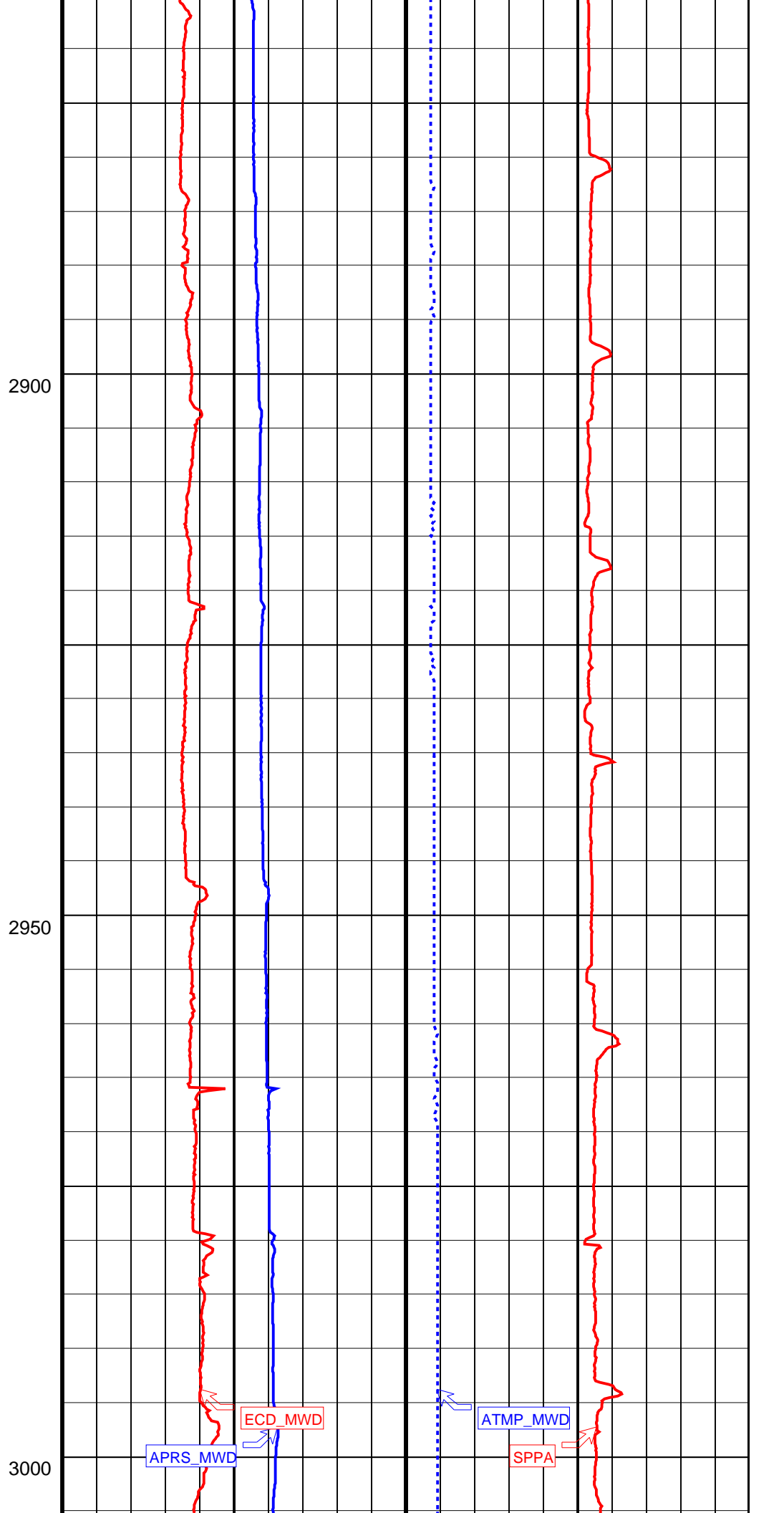
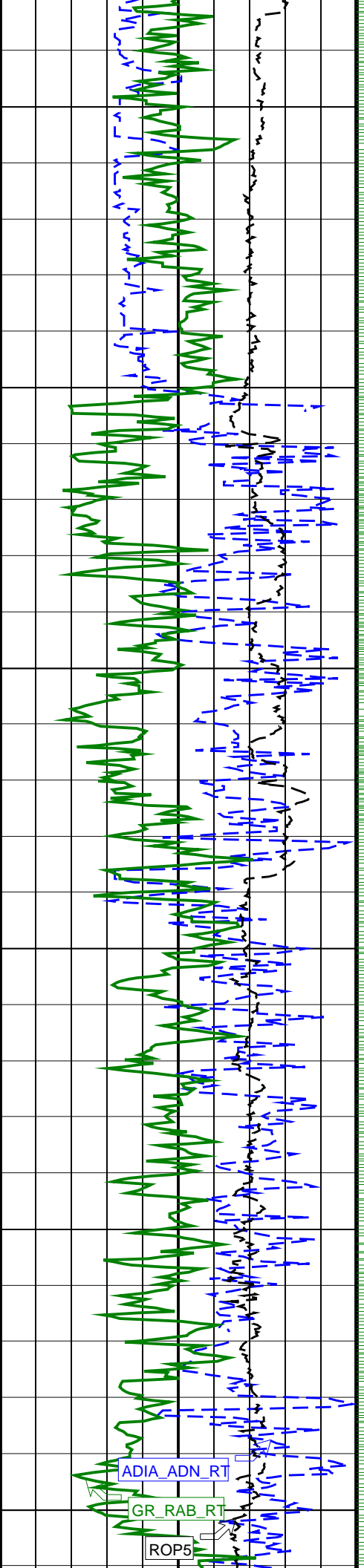
APRS\_MWD

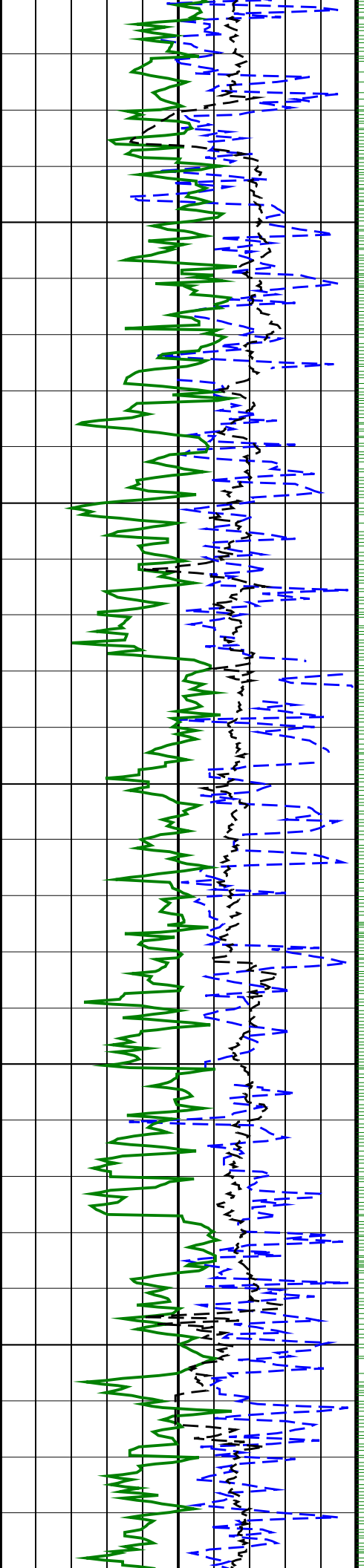
ECD\_MWD

ATMP\_MWD

SPPA

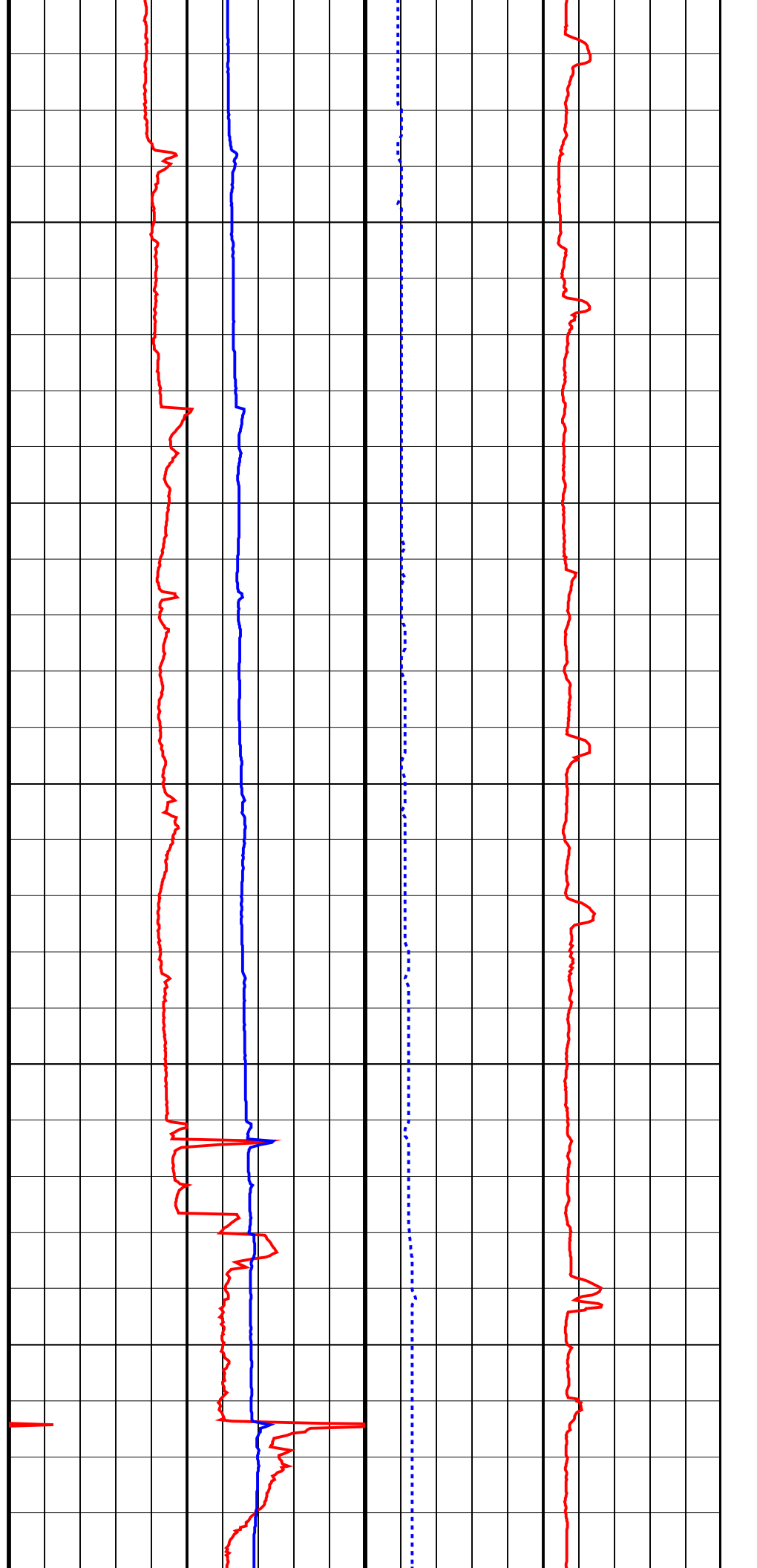


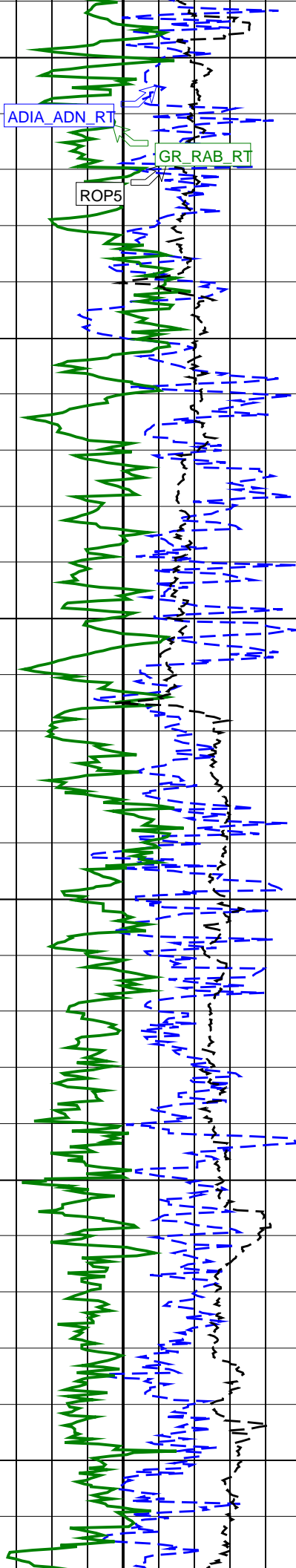




3050

3100





3150

ECD\_MWD

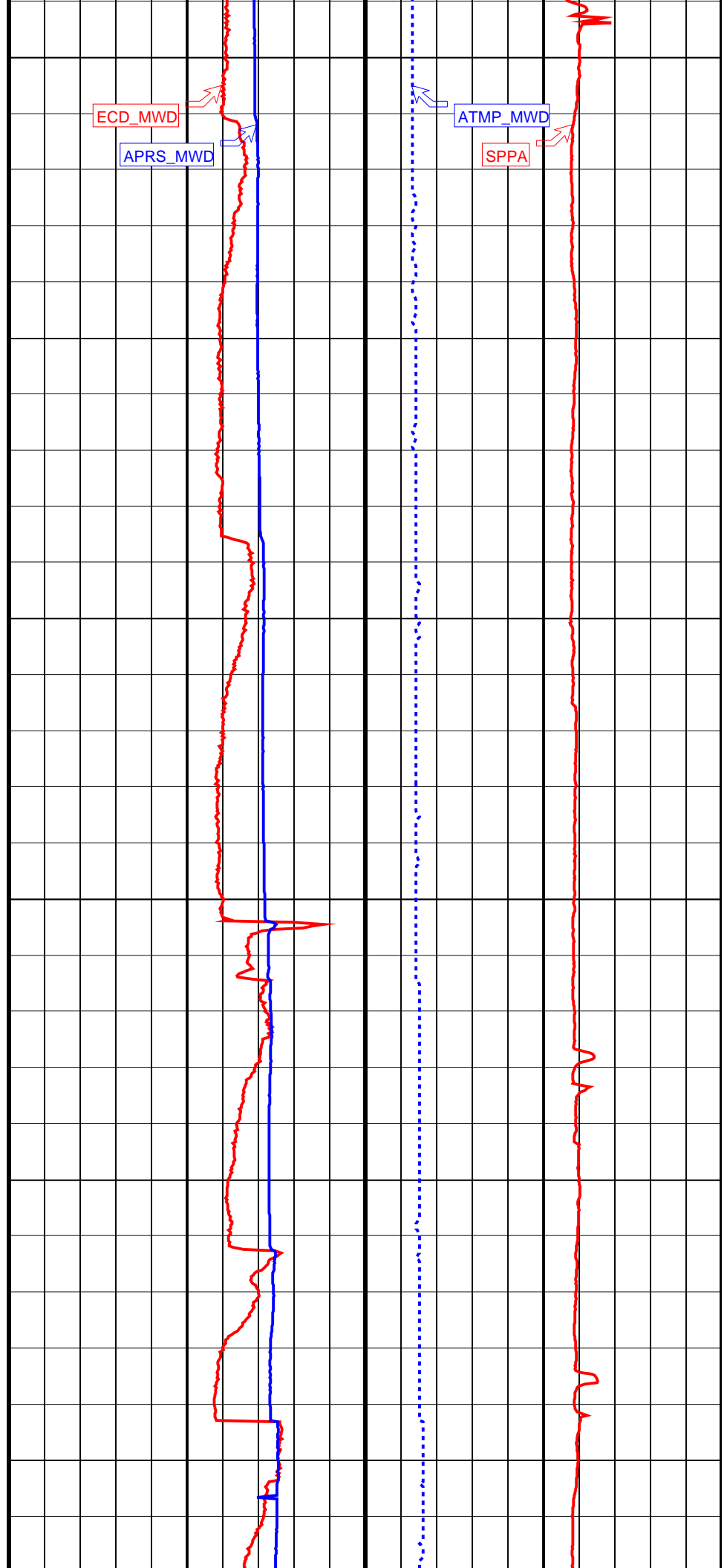
APRS\_MWD

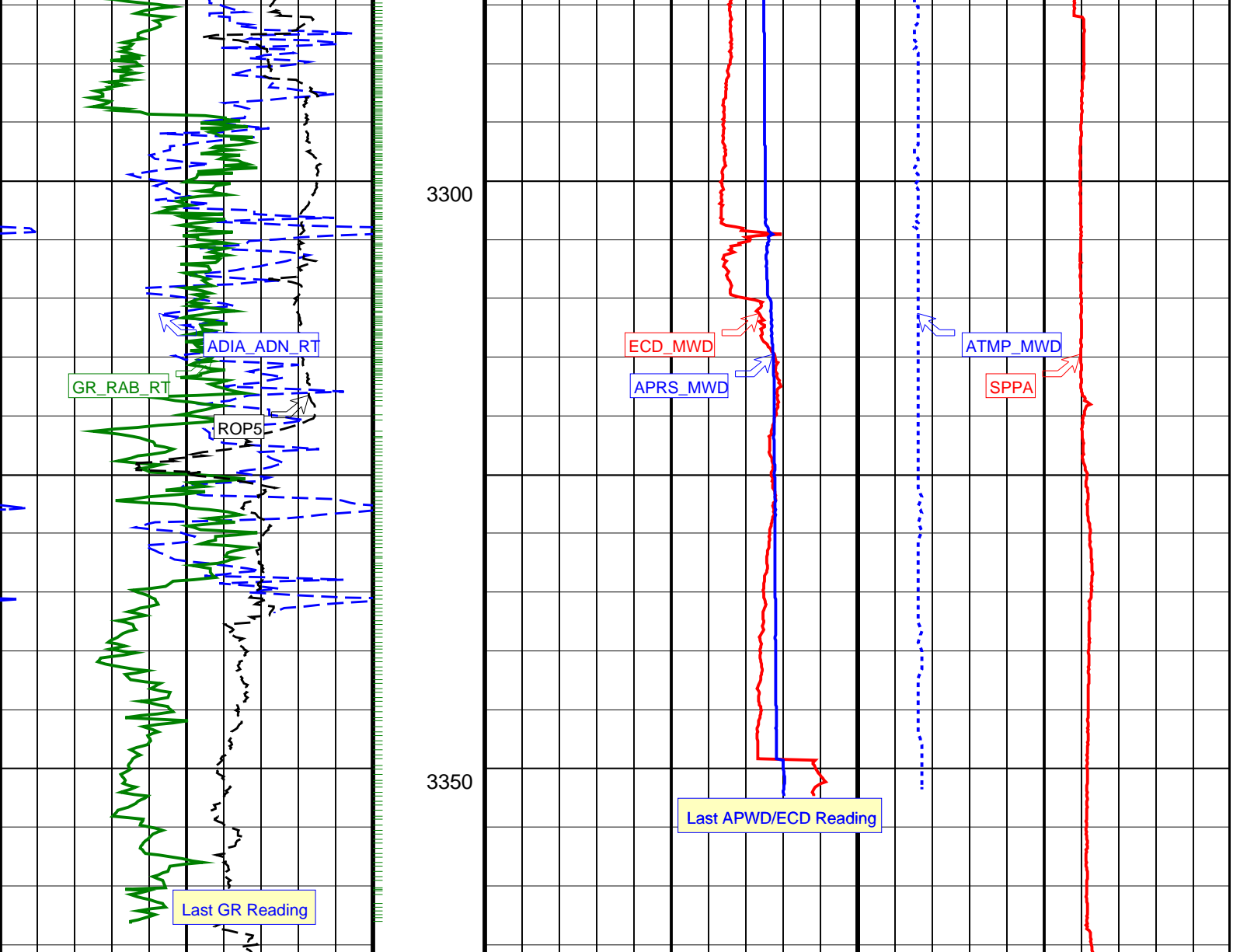
ATMP\_MWD

SPPA

3200

3250





<b>ROP*5 (ROP5)</b> (M/HR)	<b>MWD Annulus Pressure (APRS_MWD)</b> (PSI)	<b>MWD Annular Temperature (ATMP_MWD)</b> (DEGC)
100 ----- 0	2000 ----- 6000	0 ----- 100
<b>Average Borehole Diameter, Real-Time (ADIA_ADN_RT)</b> (IN)	<b>MWD Equivalent Circulating density (ECD_MWD)</b> (LB/G)	<b>Standpipe Pressure (SPPA)</b> (PSI)
7 ----- 12	8 ----- 10	1000 ----- 4000
<b>RAB Gamma Ray, Real-Time (GR_RAB_RT)</b> (GAPI)		
0 ----- 150		

**PIP SUMMARY**

└ GRRA\_R PIP

SCHLUMBERGER

Survey report

17-Oct-2007 15:00:08

Page 1 of 2

Client.....: Japan Agency for Marine-Earth Science and Tech  
 Field.....: Nankai-Kumano

Well.....: C0002A  
 API number.....: 07CHS0064  
 Engineer.....: M. Jakulj/C. Xi/Q.G. Ming

Spud date.....: 13-Oct-07  
 Last survey date.....: 17-Oct-07  
 Total accepted surveys...: 30  
 MD of first survey.....: 1993.00 m  
 MD of last survey.....: 3339.09 m

Rig.....: Chikyu  
 STATE.....: Japan

----- Survey calculation methods-----  
 Method for positions.....: Minimum curvature  
 Method for DLS.....: Mason & Taylor

----- Geomagnetic data -----  
 Magnetic model.....: BGGM version 2007  
 Magnetic date.....: 06-Oct-2007  
 Magnetic field strength...: 916.75 HCNT

----- Depth reference -----  
 Permanent datum.....: Mean Sea Level  
 Depth reference.....: Drill Floor

Magnetic dec (+E/W-).....: -6.50 degrees  
 Magnetic dip.....: 46.65 degrees

KB above permanent.....: 28.50 m  
 DF above permanent.....: 28.50 m

Reference G.....: 999.59 mGal  
 Reference H.....: 916.75 HCNT  
 Reference Dip.....: 46.65 degrees  
 Tolerance of G.....: (+/-) 2.50 mGal  
 Tolerance of H.....: (+/-) 6.00 HCNT  
 Tolerance of Dip.....: (+/-) 0.45 degrees

----- Vertical section origin-----  
 Latitude (+N/S-).....: 0.00 m  
 Departure (+E/W-).....: 0.00 m

----- Platform reference point-----  
 Latitude (+N/S-).....: 0.00 m  
 Departure (+E/W-).....: 0.00 m

Azimuth from Vsect Origin to target: 0.00 degrees

----- Corrections -----  
 Magnetic dec (+E/W-).....: -6.50 degrees  
 Grid convergence (+E/W-)..: 0.00 degrees  
 Total az corr (+E/W-).....: -6.50 degrees  
 (Total az corr = magnetic dec - grid conv)  
 Survey Correction Type ...:  
 I=Sag Corrected Inclination  
 M=Schlumberger Magnetic Correction  
 S=Shell Magnetic Correction  
 F=Failed Axis Correction  
 R=Magnetic Resonance Tool Correction  
 D=Dmag Magnetic Correction

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 SCHLUMBERGER Survey Report

17-Oct-2007 15:00:08

Page 2 of 2

Seq #	Measured depth (m)	Incl angle (deg)	Azimuth angle (deg)	Course length (m)	TVD depth (m)	Vertical section (m)	Displ +N/S- (m)	Displ +E/W- (m)	Total displ (m)	At Azim (deg)	DLS (deg/10m)	Srvy tool type	Tool Corr (deg)
1	1993.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	TIP	None
2	2000.77	0.34	313.18	7.77	7.77	0.02	0.02	-0.02	0.02	313.18	0.44	MWD	None
3	2115.82	0.75	277.77	115.05	122.81	0.35	0.35	-1.01	1.07	289.14	0.04	MWD	None
4	2231.12	0.95	278.99	115.30	238.10	0.60	0.60	-2.70	2.77	282.56	0.02	MWD	None
5	2271.98	0.93	280.92	40.86	278.96	0.72	0.72	-3.36	3.44	282.05	0.01	MWD	None
6	2348.80	0.95	271.40	76.82	355.77	0.85	0.85	-4.61	4.69	280.46	0.02	MWD	None
7	2383.17	1.09	267.46	34.37	390.13	0.84	0.84	-5.22	5.29	279.18	0.05	MWD	None
8	2420.17	1.05	264.57	37.00	427.12	0.80	0.80	-5.91	5.97	277.67	0.02	MWD	None
9	2458.22	1.09	262.91	38.05	465.17	0.72	0.72	-6.62	6.66	276.20	0.01	MWD	None
10	2499.11	1.23	266.27	40.89	506.05	0.64	0.64	-7.44	7.47	274.93	0.04	MWD	None
11	2536.07	1.20	266.85	36.96	543.00	0.60	0.60	-8.23	8.25	274.14	0.01	MWD	None
12	2559.83	1.21	264.21	23.76	566.76	0.56	0.56	-8.72	8.74	273.65	0.02	MWD	None
13	2615.89	1.34	266.60	56.06	622.80	0.46	0.46	-9.97	9.98	272.63	0.03	MWD	None
14	2652.28	1.33	264.85	36.39	659.18	0.39	0.39	-10.81	10.82	272.09	0.01	MWD	None
15	2727.25	1.55	265.28	74.97	734.13	0.23	0.23	-12.69	12.69	271.05	0.03	MWD	None
16	2765.75	1.67	265.81	38.50	772.61	0.15	0.15	-13.77	13.77	270.62	0.03	MWD	None
17	2842.01	1.75	268.78	76.26	848.84	0.04	0.04	-16.04	16.04	270.16	0.02	MWD	None
18	2880.16	1.76	269.22	38.15	886.97	0.02	0.02	-17.21	17.21	270.08	0.00	MWD	None
19	2918.36	2.06	251.55	38.20	925.15	-0.20	-0.20	-18.45	18.45	269.37	0.17	MWD	None
20	2957.11	2.50	231.03	38.75	963.87	-0.95	-0.95	-19.76	19.79	267.24	0.24	MWD	None
21	2996.34	2.87	228.70	39.23	1003.06	-2.14	-2.14	-21.17	21.27	264.23	0.10	MWD	None
22	3033.69	3.24	223.89	37.35	1040.35	-3.52	-3.52	-22.60	22.87	261.15	0.12	MWD	None
23	3071.10	4.01	215.60	37.41	1077.69	-5.34	-5.34	-24.10	24.68	257.50	0.25	MWD	None
24	3107.78	4.13	214.75	36.68	1114.28	-7.47	-7.47	-25.59	26.66	253.73	0.04	MWD	None
25	3145.52	4.05	228.85	37.74	1151.92	-9.47	-9.47	-27.37	28.96	250.92	0.27	MWD	None
26	3182.24	4.69	225.98	36.72	1188.53	-11.36	-11.36	-29.43	31.55	248.89	0.18	MWD	None
27	3223.37	4.67	227.41	41.13	1229.53	-13.66	-13.66	-31.87	34.68	246.79	0.03	MWD	None
28	3262.38	4.21	232.90	39.01	1268.42	-15.60	-15.60	-34.18	37.57	245.47	0.16	MWD	None
29	3301.01	4.01	252.09	38.63	1306.95	-16.87	-16.87	-36.60	40.30	245.25	0.36	MWD	None
30	3339.09	4.25	250.24	38.08	1344.93	-17.76	-17.76	-39.19	43.03	245.62	0.07	MWD	None

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**Company:**  
**Japan Agency for Marine-Earth Science and Technology**


**Well:** C0002A

**Field:** Nankai-Kumano

**Rig:** Chikyu

**Country:** Japan

**8 1/2 in. LWD Hole**  
**Drilling Parameters**  
**Real Time Log 1:500 Measured Depth**



# Data Quality

## Type of Measurement

Res	GR	APWD	Neu	Den
-----	----	------	-----	-----

When data does not meet standards, put a number in with a corresponding number and remark below. Use Positive remarks are welcome; do not append them w

Geomarket	CHG	Location	CHS
Job Date	12-Oct-2007	Customer	JAMSTEC
Rig	Chikyu	Field/Well	Nankai-Kumano/CO002A
Engineer	Mario Jakui/Chen Xi/QG Ming	Job Number	07CHS0064

## Operation

### Presentation

**Description of Well – Names, Geometry, Services, Location and References: General Content**  
Header, user of trademarks, directional data, well plot, order of components, spelling and style, units sensor to toolface angle recorded

**Equipment and Software Description**  
Tool sketch, equipment numbers, software versions, data rates, filtering weights

**Processing Traceability and Environment Description**  
Acquisition environment, parameters and key constants for each run or zone, complete and relevant remarks

**Annotations, Presented Formats, QC Curves, Print Quality**  
Documented splice points; data gap explanations; mud changes; movement indicator; color selection

### Calibration and Verifications

**Calibration / Before survey verification / After survey verification**  
Validity, completeness (includes equipment number), timeliness, uncredited, discrepancy explained

### Operating Procedures

**Depth Control**  
Comparison with driller's depth, other logs, other bit runs, between RT and RM, Depth summary listing

**Logging speed and sampling rates**  
As recommended in reference manual or job planner. No loss of data or spatial resolution

**Data Comparison**  
Between runs and passes, with data from nearby wells, other conveyance, mud log and markers

**Operating Anomalies/Failure/Missing Data/Sensor Orientation/Transmission Losses**  
Absence of noise and spurious variations, anomaly repeated, corrected, reported or explained.

### Digital Delivery

**Digital Products**  
Labeled, verification listing with complete digital record, backup for archival; record matches hard copy.

**Job Quality Rating (JQR)**  
Number of boxes without number X 10

### Environmental effects

**Irregular Operation**  
Excessive ROP or speed, high deviation, shocks, vibrations, sticking conditions

**Borehole Geometry**  
Shape (caves, etc), rugosity, spiralled hole, mud induced fractures. Casing, tubing conditions

**Borehole Fluid**  
Barite, KCl, salinity, additives, gas cut, unstable

**Interferences**  
External noise, nearby casing or drillpipe, debris, unusual formation composition

**Operation Outside Tool Specifications**  
Geomarket/Temperature, pressure, hole size, hole deviation, dog-leg severity, flow rate, rpm, solids value of parameter

**Environmental Quality Rating (EQR)**  
Number of boxes without number X 20

## Remarks

100	100	100	100	100	100
100	100	100	100	100	100

Cell Manager: Mario Jakui FSM



